

**JOHN SARGENT, Research Coordinator**

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# Foreign Macro- economic Experience: A Symposium



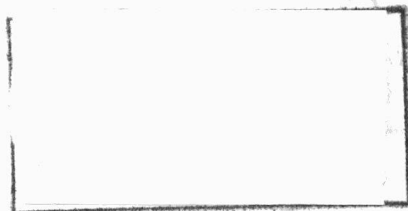


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*Foreign Macroeconomic Experience:  
A Symposium*



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*The studies contained in this volume reflect the views of their authors and do not imply endorsement by the Chairman or Commissioners.*



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# Foreign Macroeconomic Experience: A Symposium

JOHN SARGENT  
*Research Coordinator*

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## FOREWORD

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When the members of the Rowell-Sirois Commission began their collective task in 1937, very little was known about the evolution of the Canadian economy. What was known, moreover, had not been extensively analyzed by the slender cadre of social scientists of the day.

When we set out upon our task nearly 50 years later, we enjoyed a substantial advantage over our predecessors; we had a wealth of information. We inherited the work of scholars at universities across Canada and we had the benefit of the work of experts from private research institutes and publicly sponsored organizations such as the Ontario Economic Council and the Economic Council of Canada. Although there were still important gaps, our problem was not a shortage of information; it was to interrelate and integrate — to synthesize — the results of much of the information we already had.

The mandate of this Commission is unusually broad. It encompasses many of the fundamental policy issues expected to confront the people of Canada and their governments for the next several decades. The nature of the mandate also identified, in advance, the subject matter for much of the research and suggested the scope of enquiry and the need for vigorous efforts to interrelate and integrate the research disciplines. The resulting research program, therefore, is particularly noteworthy in three respects: along with original research studies, it includes survey papers which synthesize work already done in specialized fields; it avoids duplication of work which, in the judgment of the Canadian research community, has already been well done; and, considered as a whole, it is the most thorough examination of the Canadian economic, political and legal systems ever undertaken by an independent agency.

The Commission's research program was carried out under the joint

direction of three prominent and highly respected Canadian scholars: Dr. Ivan Bernier (*Law and Constitutional Issues*), Dr. Alan Cairns (*Politics and Institutions of Government*) and Dr. David C. Smith (*Economics*).

Dr. Ivan Bernier is Dean of the Faculty of Law at Laval University. Dr. Alan Cairns is former Head of the Department of Political Science at the University of British Columbia and, prior to joining the Commission, was William Lyon Mackenzie King Visiting Professor of Canadian Studies at Harvard University. Dr. David C. Smith, former Head of the Department of Economics at Queen's University in Kingston, is now Principal of that University. When Dr. Smith assumed his new responsibilities at Queen's in September 1984, he was succeeded by Dr. Kenneth Norrie of the University of Alberta and John Sargent of the federal Department of Finance, who together acted as Co-directors of Research for the concluding phase of the Economics research program.

I am confident that the efforts of the Research Directors, research coordinators and authors whose work appears in this and other volumes, have provided the community of Canadian scholars and policy makers with a series of publications that will continue to be of value for many years to come. And I hope that the value of the research program to Canadian scholarship will be enhanced by the fact that Commission research is being made available to interested readers in both English and French.

I extend my personal thanks, and that of my fellow Commissioners, to the Research Directors and those immediately associated with them in the Commission's research program. I also want to thank the members of the many research advisory groups whose counsel contributed so substantially to this undertaking.

DONALD S. MACDONALD





At its most general level, the Royal Commission's research program has examined how the Canadian political economy can better adapt to change. As a basis of enquiry, this question reflects our belief that the future will always take us partly by surprise. Our political, legal and economic institutions should therefore be flexible enough to accommodate surprises and yet solid enough to ensure that they help us meet our future goals. This theme of an adaptive political economy led us to explore the interdependencies between political, legal and economic systems and drew our research efforts in an interdisciplinary direction.

The sheer magnitude of the research output (more than 280 separate studies in 70+ volumes) as well as its disciplinary and ideological diversity have, however, made complete integration impossible and, we have concluded, undesirable. The research output as a whole brings varying perspectives and methodologies to the study of common problems and we therefore urge readers to look beyond their particular field of interest and to explore topics across disciplines.

The three research areas, — *Law and Constitutional Issues*, under Ivan Bernier; *Politics and Institutions of Government*, under Alan Cairns; and *Economics*, under David C. Smith (co-directed with Kenneth Norrie and John Sargent for the concluding phase of the research program) — were further divided into 19 sections headed by research coordinators.

The area *Law and Constitutional Issues* has been organized into five major sections headed by the research coordinators identified below.

- Law, Society and the Economy — *Ivan Bernier and Andrée Lajoie*
- The International Legal Environment — *John J. Quinn*
- The Canadian Economic Union — *Mark Krasnick*

- Harmonization of Laws in Canada — *Ronald C.C. Cuming*
- Institutional and Constitutional Arrangements — *Clare F. Beckton and A. Wayne MacKay*

Since law in its numerous manifestations is the most fundamental means of implementing state policy, it was necessary to investigate how and when law could be mobilized most effectively to address the problems raised by the Commission's mandate. Adopting a broad perspective, researchers examined Canada's legal system from the standpoint of how law evolves as a result of social, economic and political changes and how, in turn, law brings about changes in our social, economic and political conduct.

Within *Politics and Institutions of Government*, research has been organized into seven major sections.

- Canada and the International Political Economy — *Denis Stairs and Gilbert Winham*
- State and Society in the Modern Era — *Keith Banting*
- Constitutionalism, Citizenship and Society — *Alan Cairns and Cynthia Williams*
- The Politics of Canadian Federalism — *Richard Simeon*
- Representative Institutions — *Peter Aucoin*
- The Politics of Economic Policy — *G. Bruce Doern*
- Industrial Policy — *André Blais*

This area examines a number of developments which have led Canadians to question their ability to govern themselves wisely and effectively. Many of these developments are not unique to Canada and a number of comparative studies canvass and assess how others have coped with similar problems. Within the context of the Canadian heritage of parliamentary government, federalism, a mixed economy, and a bilingual and multicultural society, the research also explores ways of rearranging the relationships of power and influence among institutions to restore and enhance the fundamental democratic principles of representativeness, responsiveness and accountability.

*Economics* research was organized into seven major sections.

- Macroeconomics — *John Sargent*
- Federalism and the Economic Union — *Kenneth Norrie*
- Industrial Structure — *Donald G. McFetridge*
- International Trade — *John Whalley*
- Income Distribution and Economic Security — *François Vaillancourt*
- Labour Markets and Labour Relations — *Craig Riddell*
- Economic Ideas and Social Issues — *David Laidler*

Economics research examines the allocation of Canada's human and other resources, the ways in which institutions and policies affect this

allocation, and the distribution of the gains from their use. It also considers the nature of economic development, the forces that shape our regional and industrial structure, and our economic interdependence with other countries. The thrust of the research in economics is to increase our comprehension of what determines our economic potential and how instruments of economic policy may move us closer to our future goals.

One section from each of the three research areas — The Canadian Economic Union, The Politics of Canadian Federalism, and Federalism and the Economic Union — have been blended into one unified research effort. Consequently, the volumes on Federalism and the Economic Union as well as the volume on The North are the results of an interdisciplinary research effort.

We owe a special debt to the research coordinators. Not only did they organize, assemble and analyze the many research studies and combine their major findings in overviews, but they also made substantial contributions to the Final Report. We wish to thank them for their performance, often under heavy pressure.

Unfortunately, space does not permit us to thank all members of the Commission staff individually. However, we are particularly grateful to the Chairman, The Hon. Donald S. Macdonald; the Commission's Executive Director, J. Gerald Godsoe; and the Director of Policy, Alan Nymark, all of whom were closely involved with the Research Program and played key roles in the contribution of Research to the Final Report. We wish to express our appreciation to the Commission's Administrative Advisor, Harry Stewart, for his guidance and advice, and to the Director of Publishing, Ed Matheson, who managed the research publication process. A special thanks to Jamie Benidickson, Policy Coordinator and Special Assistant to the Chairman, who played a valuable liaison role between Research and the Chairman and Commissioners. We are also grateful to our office administrator, Donna Stebbing, and to our secretarial staff, Monique Carpentier, Barbara Cowtan, Tina DeLuca, Françoise Guilbault and Marilyn Sheldon.

Finally, a well deserved thank you to our closest assistants: Jacques J.M. Shore, *Law and Constitutional Issues*; Cynthia Williams and her successor Karen Jackson, *Politics and Institutions of Government*; and I. Lilla Connidis, *Economics*. We appreciate not only their individual contribution to each research area, but also their cooperative contribution to the research program and the Commission.

IVAN BERNIER  
ALAN CAIRNS  
DAVID C. SMITH

## ACKNOWLEDGMENTS

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The symposium, originally entitled "Lessons from Recent European and Australian Macroeconomic Experience," was held in Ottawa in June 1984. Many people contributed to its success.

David C. Smith, Research Director of the overall Economics Research Program, provided support and advice. Three members of the Macroeconomics Research Advisory Group, Professors John Helliwell and Douglas Purvis and Dr. Sylvia Ostry, gave valuable advice on the selection of speakers. Other members of the Research Advisory Group, Alasdair Sinclair, Professor Gordon Sparks, Dr. Wendy Dobson, Dr. William White, Professor Pierre Fortin, Professor John McCallum, and Professor Brian Scarfe, chaired sessions. In a final session, Professors Laidler and Purvis drew out key conclusions and generalizations; their remarks are included as the final chapter of this volume.

Barbara Cowtan, Sheila-Marie Cook, Vicky Chase, Julita Pirozynska and Ian Sinclair of the Commission staff worked hard and effectively to ensure that the physical arrangements for the symposium, and for the participants' travel, went smoothly.

The Commission was especially fortunate in the nine invited guest speakers who agreed to give the Commission, and through this volume a wider audience, the benefit of their knowledge and analysis of foreign economic experience. On relatively short notice, in most cases with little or no knowledge of the Commission or the conference organizer, and for modest recompense, these scholars committed themselves to preparing two papers to be delivered at the symposium in which they would attempt to distill what seemed to them to be the key lessons of their countries' recent macroeconomic experience. This was not an easy task; further, scholars are generally reluctant to run the risk of over-

simplification and often find more satisfaction in developing a new and original point than in providing a broader sweep, based on their own and others' analyses, of the type sought here. All the participants clearly went to considerable effort to provide this distillation in a form tailored to a Canadian audience; I believe all succeeded.

JOHN SARGENT



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# Foreign Macroeconomic Experience: *An Introduction*

JOHN SARGENT

This introduction is not designed to save the reader the trouble of perusing the rest of the book. Rather, it is hoped that it will whet the reader's appetite to examine the text fully. Nor is the introduction designed to draw out key conclusions or generalizations from the experience of the eight countries surveyed; the concluding chapter, by Professors David Laidler and Douglas Purvis, takes on this task. Making use of charts, we provide a brief sketch of the comparative macroeconomic experience of the eight countries in order to set the context for the individual country chapters. For each of the chapters we then identify certain themes which seem of particular interest from a Canadian point of view.

The structure of the volume largely follows the structure of the symposium. The first day was occupied with presentations which analyzed the recent macroeconomic experience of eight developed Western economies and drew lessons from these experiences, particularly lessons which might be of relevance to Canada. The country reports were grouped in pairs: West Germany and France, the Netherlands and Sweden, Austria and Switzerland, and Australia and the United Kingdom, with brief discussion following each pair. The second day consisted of sessions on three general topics thought to be of particular relevance to Canada:

- the conduct of macropolicy in a federal, regionally diverse economy;
- the role for incomes policy in macroeconomic strategy; and
- macroeconomic response to export/real exchange-rate shocks.

Each session consisted of two or three presentations followed by discussion.

Preceding the final chapter by Laidler and Purvis is the text of the after-dinner speech by Dr. Chris Higgins, "An Overview of OECD Experience: Coming of Age in the 1970s; Reflections of a Practical Macroeconomist."

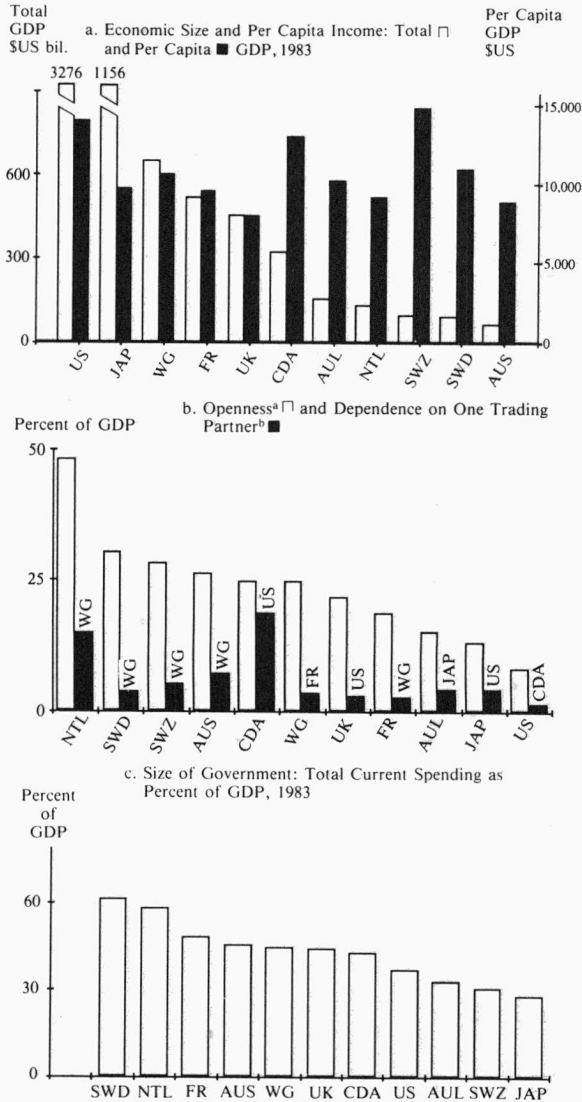
Canadians are reasonably familiar with the economic performance and policy experience of the United States. The experience of other countries is less readily accessible but is often just as relevant. In some respects, Canada more closely resembles certain other countries than it does the United States. Its small, open economy is the most obvious example. In certain other respects Canada may be viewed as situated between the United States and northern European countries. A theme of Dr. Sylvia Ostry's address to the Royal Society of Canada in 1982<sup>1</sup> was that Canada lay between the "pluralistic market economy" of the United States and the "social market economy" of northern European countries in terms of the economy's flexibility and responsiveness to market forces, and perhaps also in terms of the level of "civitas" of its population. Finally, the experiences of other countries may offer illumination when they have special characteristics similar to our own. In this volume, the special characteristics chosen for attention are a federal political and regionally diverse economic situation, a hankering to experiment with incomes policy, and being subject to favourable export or terms-of-trade shocks (most often associated with being self-sufficient in, or a net exporter of, petroleum).

## **An Overview of the Economies Surveyed**

Figure I-1A shows the relative size, as measured by Gross Domestic Product in U.S. dollars, of the economies which are the subjects of the reports in this volume; the United States, Japan and Canada are also shown. Clearly there is a vast range in size, with the volume of goods and services (the "Gross Domestic Product") produced in West Germany being just over twice as large as in Canada, while Austria's GDP is only one-fifth of Canada's. In terms of income per capita, the extremes are the United Kingdom and Switzerland, where the U.K. level is 54 percent of the Swiss. Per capita income in Canada is toward the top of the range, at least using 1983 exchange rates.

Closely related to size is the extent of "openness," here proxied by the average of the ratios of exports and imports of goods and Gross Domestic Product (Figure I-1B). The Netherlands, with exports and imports of goods each equal to about one-half of GDP, is the most open, and substantially more dependent on trade than is Canada, where the comparable ratios are of the order of one-quarter. Sweden, Switzerland, Germany and Austria are similar in degree of dependence on foreign trade to Canada, while the United Kingdom, France and Australia have somewhat lower export and import ratios. While Canada is not a special

**FIGURE I-1 Indicators of Macroeconomic Structure**



Legend:

AUL — Australia  
AUS — Austria  
CDA — Canada  
FR — France

JAP — Japan  
NTL — Netherlands  
SWD — Sweden  
SWZ — Switzerland

UK — United Kingdom  
US — United States  
WG — West Germany

a. Average ratio of exports and imports of goods to GDP, 1984.

b. Exports of goods to largest trading partner as percent of GDP, with trading partner identified by name, 1983.

Source: Organisation for Economic Co-operation and Development, *Economic Surveys 1984/1985, Germany* (Paris: OECD, 1985) Table: Basic Statistics: International Comparisons.



case in terms of openness, it is in terms of concentration of trade with one country. Seventy percent of our exports (equal to 19 percent of GDP) go to the United States; the closest country in this regard is the Netherlands, for which exports to West Germany account for 30 percent of goods or 15 percent of GDP.

Another key structural characteristic is size of government. The indicator used is total current spending by all levels of government as a percent of GDP (Figure I-1C). Sweden and the Netherlands have substantially larger government sectors than the rest, with government spending equal to about 60 percent of GDP. France, Austria, West Germany, the United Kingdom and Canada have government spending to GDP ratios in the mid-40 percent range, while Australia and Switzerland have substantially smaller government sectors equal to about 30 percent of GDP.

Turning from structural characteristics to the record of macroeconomic performance over the last two decades, charts showing the evolution of key macroeconomic indicators are grouped with our brief notes on key themes which emerged in the papers on each country's experience. We display:

- one indicator of growth of real output: real Gross Domestic Product;
- two indicators of labour market conditions: level of unemployment as a percent of the civilian labour force and percentage change in employment;
- one indicator of inflation: the annual percentage change in the Consumer Price Index;
- a fiscal policy indicator: the ratio of the surplus/deficit of the consolidated government sector to GDP/GNP.

As background, we first show these series for Canada and the United States (Figure I-2A), together with the OECD average which serves as a common point of comparison in all these charts.

### *West Germany*

In terms of macroeconomic performance, West Germany stands out for its success in consistently achieving relatively low levels of inflation coupled with relatively low levels of unemployment, although it has recorded a substantial rise in unemployment in the 1980s (Figure I-2B). Professor Westphal notes the independence of the central bank and the orientation of monetary policy to the control of inflation throughout the past decade. The Bundesbank was one of the first central banks to announce that monetary policy would be guided by targets for the growth of the money supply in 1973, when the general move to floating exchange rates made this monetarist approach possible. However, it has applied a generally monetarist approach rather flexibly, accepting sub-

FIGURE I-2 Indicators of Macroeconomic Performance

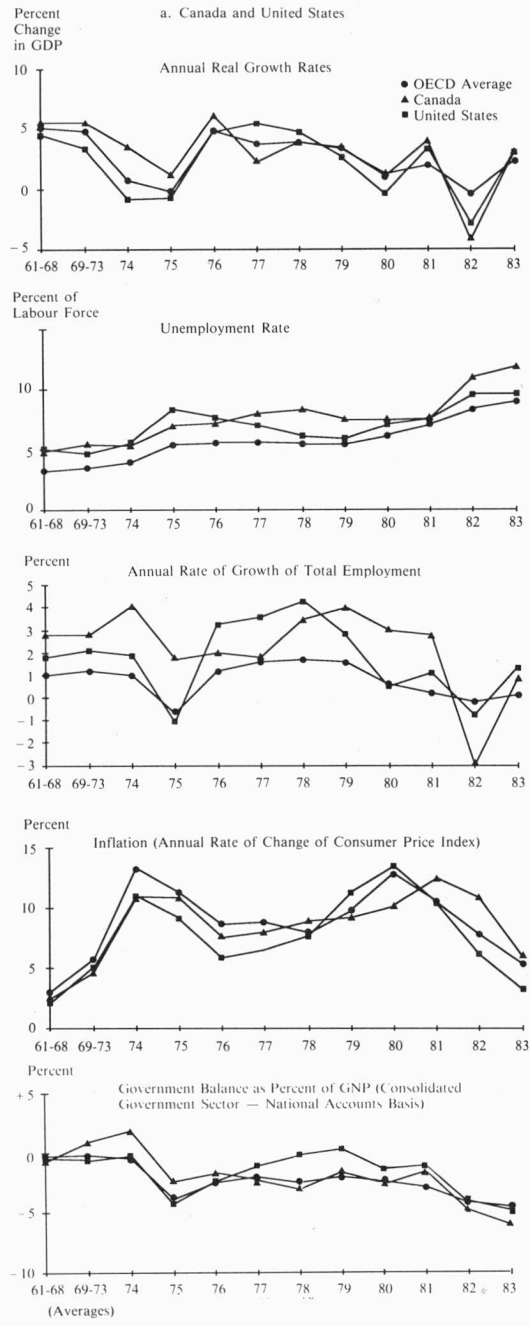


FIGURE I-2 (cont'd)

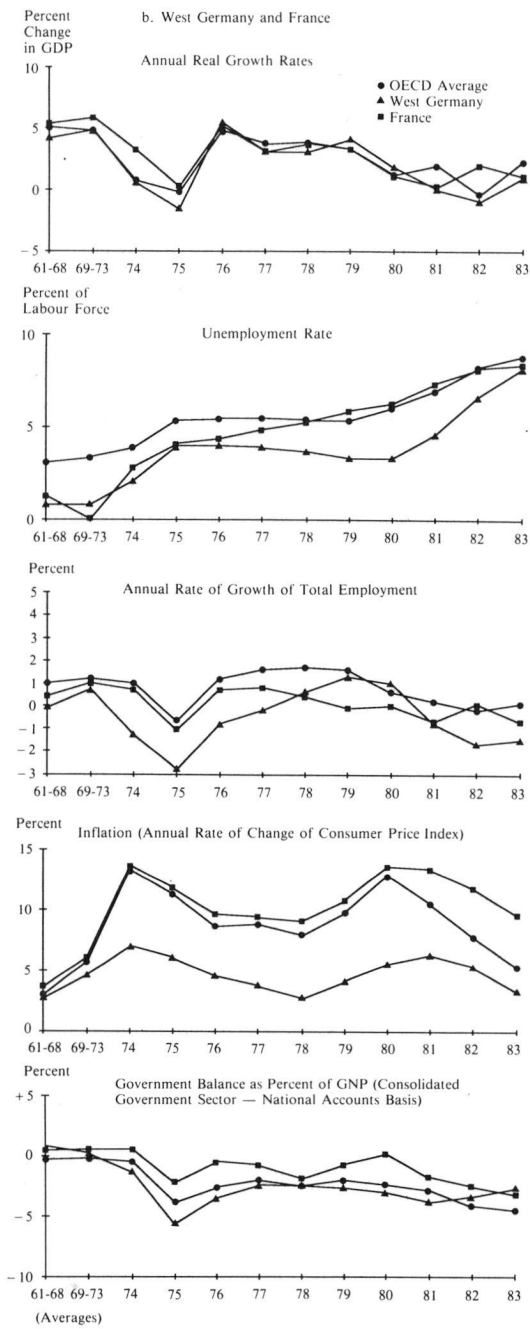


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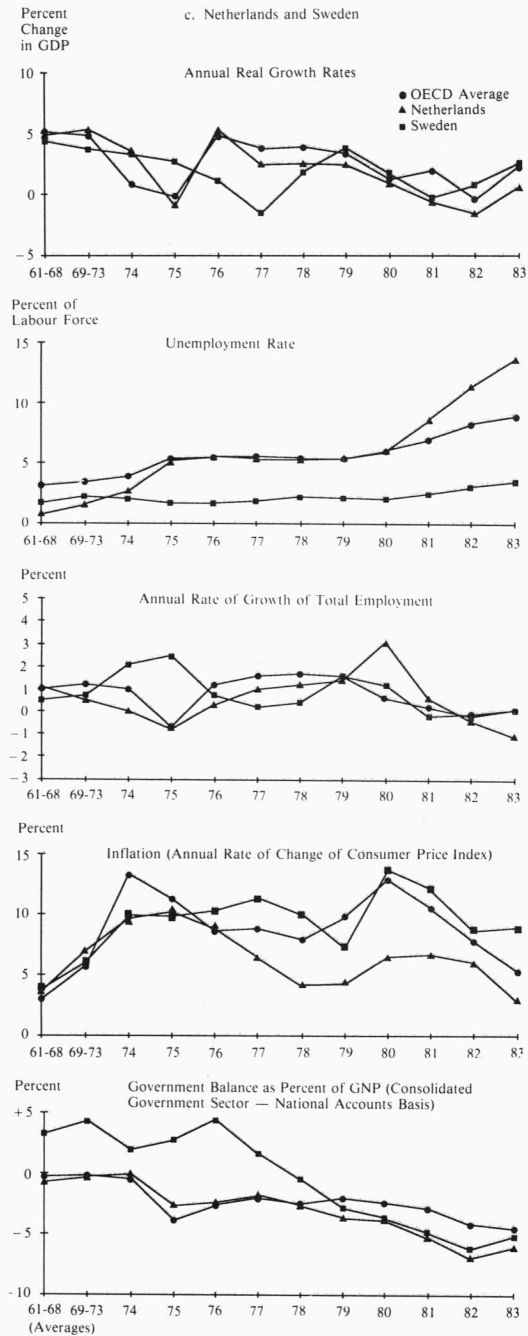


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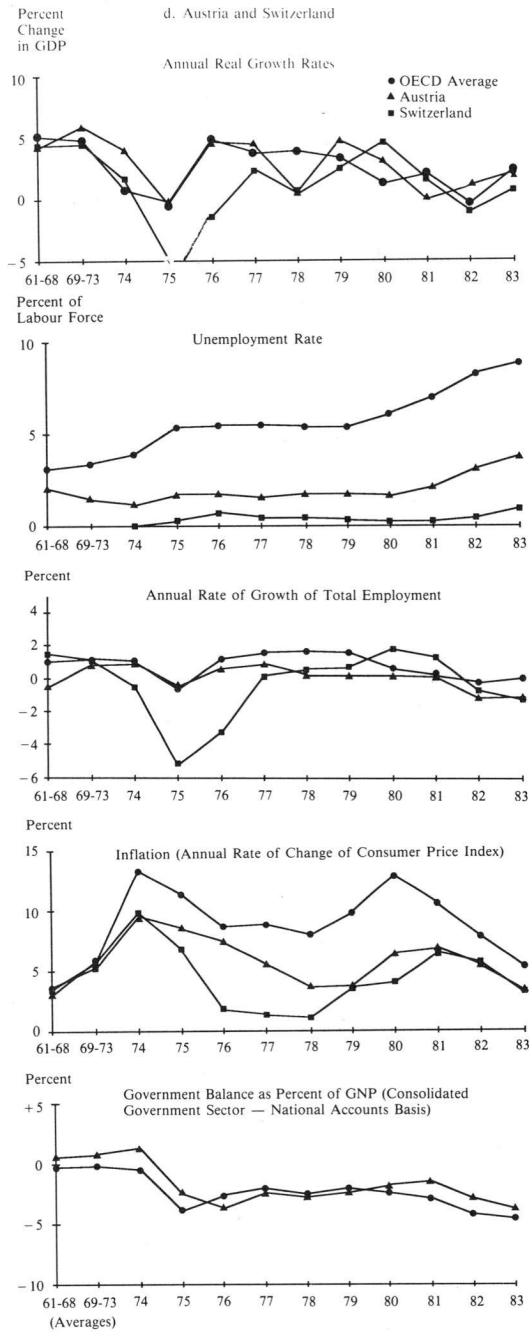
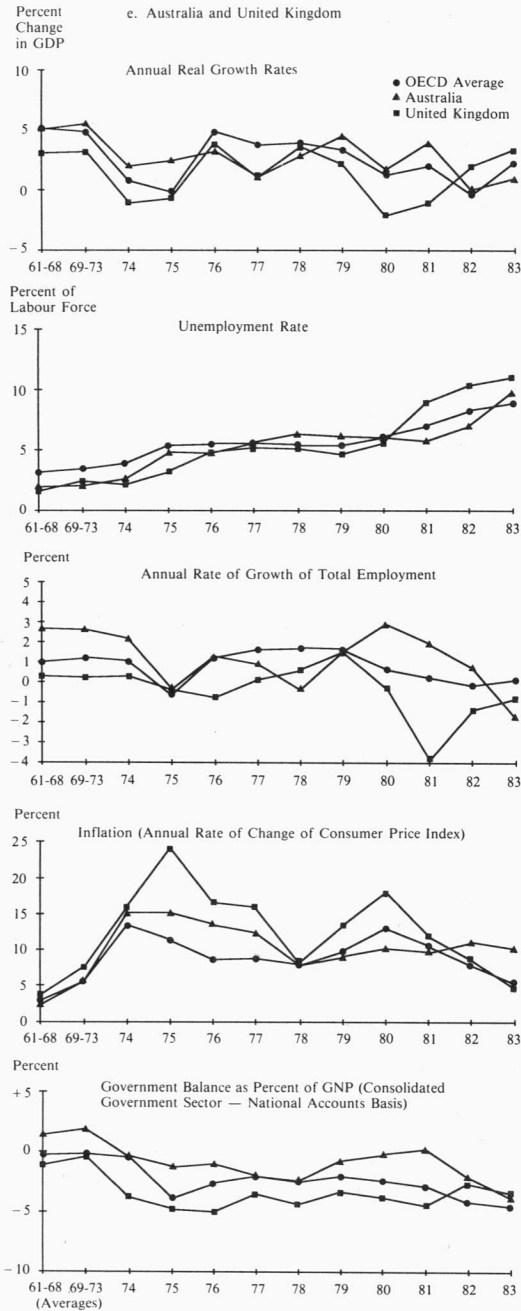


FIGURE I-2 (cont'd)



Source: Organisation for Economic Co-operation and Development, *Economic Outlook and Historical Statistics, 1960-1983* (Paris: OECD, 1985).

stantial deviations of money supply growth from the announced targets, especially to "lean against" major swings in the real exchange rate.

Professor Westphal includes an analysis of the impacts of fiscal policy and of the behaviour of wages during the first and second oil shocks (1974–75 and 1979–80). The first oil shock had been preceded by a tightening of fiscal policy in response to the overheating of the economy in 1973. The second was preceded by fiscal expansion as part of Germany's commitments to help lead OECD expansion (assume a "locomotive role") at the 1978 Bonn Summit. In addition to the difference in fiscal stance, the periods of the two oil shocks were marked by very different evolutions of wages, with rates of increase in nominal wages rising sharply before and during the first shock (which might be interpreted as unions not accepting the implications of the shock for real wages), but with nominal increases showing little reaction to, and real wages declining in conjunction with, the second oil shock. The first oil shock was marked by a quick recession followed by substantial recovery; in the second, real growth was initially sustained but then followed the extended period of recession and of slow growth and rising unemployment which has been a common feature of the experience of the countries examined. Fiscal policy, through its contribution to a strong balance-of-payments current account position, is seen as having permitted a less restrictive monetary policy in the aftermath of the first oil shock. The more expansionary fiscal policy stance preceding the second oil shock, and the resulting tendency to a weak current account and exchange rate, is seen as having led to more restrictive monetary policy in the aftermath of the second oil shock.

In the discussion, Professor Westphal assigned considerable importance to the increase in labour force growth as a factor in explaining the recent rise in unemployment (the annual rate of labour force growth averaged 0.5 percent from 1979 to 1983, compared with –0.2 percent from 1973 to 1979). Canadian officials have long argued that high labour force growth in Canada has contributed to our relatively high unemployment rate. It is interesting to see this argument now taken up in Europe, where rates of labour force growth are still much lower than those which Canada, the United States and Australia have experienced for decades.

## *France*

As described by Professor Georges de Menil, France has seen major shifts in macroeconomic policy approach over the last decade, with changing emphasis on internal objectives versus the objectives of maintaining a stable external value of the franc. Of special interest was the attempt by the newly elected Mitterrand government in 1981 to "go it alone" and pursue an expansionary policy stance when the other major OECD countries were generally reinforcing anti-inflationary policies. (There are parallels to the Canadian experience of 1974–75.) France

initially avoided the severe recession experienced in most other OECD countries, but inflation rose whereas it was declining elsewhere, and the current account of the balance of payments swung into substantial deficit.

By 1983 the French government had concluded that its approach was not sustainable, given acceptance of the constraints of avoiding both continuing depreciation of the franc and protectionist measures which would be inconsistent with its membership in the European Economic Community. "After hesitating between changing the constraints and changing the policy," the French government opted for the latter and reversed the expansionary thrust of monetary and fiscal policy. While the tendencies toward a widening gap between French and German inflation rates and a growing current account deficit have been halted, and further depreciation avoided, it remains to be seen how costly the real gains made in 1981 and 1982 will prove to be in terms of the difficulty of re-establishing low rates of inflation and satisfactory external balance.

A key general issue raised by de Menil's analysis and the French experience is the extent to which "go it alone" macropolicy approaches have asymmetric results, or face asymmetric constraints, depending on whether they involve a more expansionary, or a more firmly anti-inflationary, policy stance than the average stance of trading partners.

### *Netherlands*

For much of the 1960s and 1970s the Netherlands experienced relatively low rates of both inflation and unemployment. In the 1980s, however, unemployment rates have risen to the highest of the countries covered in this volume (14 percent in 1984) and among the highest in the OECD. The Netherlands is also of interest since the economy has had to adjust to a favourable endowment of natural gas. Moreover, the country is one of the most developed welfare states, as suggested by its high ratio of government expenditures to GDP (Figure I-2C).

Professor Ellman discusses the Dutch government's diagnosis of the macroeconomic problems facing the economy: the government has emphasized the need to reduce the budget deficit, to strengthen the market sector, and to alleviate unemployment through work sharing. He explores the issue of whether a small open economy may be in a position to benefit more from "internal discipline" than larger economies. He sets out a series of often provocative lessons from the Dutch experience, including lessons relating to the impact of the welfare state on macroeconomic performance.

### *Sweden*

Sweden was one of the "miracle" economies of the 1950s and 1960s with high growth, very low unemployment, and moderate inflation. It still has



one of the lowest unemployment rates of OECD countries, but Dr. Jakobsson suggests that this low unemployment should be viewed as resulting in considerable part from large public sector employment and special labour market programs. He suggests further that, in other important respects, the performance of the Swedish economy over the last decade does not compare favourably with the OECD average. In particular, real growth in industrial output has been low and the economy demonstrates increasing rigidities and lack of capacity to adjust. Policies intended to maintain high employment and ease adjustment pressures (industry subsidies), public sector growth, very high marginal tax rates on average wage earners, and a narrowing of wage differentials have all contributed to these long-term problems. A final area of particular interest to Canada in Dr. Jakobsson's analysis is the discussion of the extent to which exchange-rate depreciation can help in adjusting to price and wage developments which have made the economy uncompetitive.

### *Austria*

If Sweden was the miracle economy of the 1950s and 1960s, Austria is perhaps the miracle economy of the late 1970s and 1980s. Unemployment has remained relatively low (although, by 1984, it was more than 2 percentage points higher than the average for the 1970s); inflation has also remained low (Figure I-2D).

Professor Frisch offers a model of the determination of inflation in a small open economy in which the rate of international inflation, and the gap in productivity between the exposed and "sheltered" sectors, play prominent roles. This model, which is along the lines of that developed in the 1970s for the open Scandinavian countries by Aukrust and others, is viewed as still applicable to Austria. Its usefulness for the analysis of inflation in Scandinavian economies has diminished owing to the important influence of exchange-rate depreciation — which lies outside the model — on inflation in those countries, and to a shift in wage leadership from the exposed to the public sector. The fact that the Austrian exchange rate can generally be assumed to be stable draws attention to a key element in the Austrian approach to macroeconomic policy: the maintenance of a "hard currency" which translates into maintenance of the exchange rate vis-à-vis the Deutsche Mark. This, rather than any monetary growth-rate target, provides the fundamental guide for monetary policy. It is also viewed as playing an important role in maintaining expectations of low inflation and in making it obvious to both employers and unions in the exposed sectors that they will rapidly get offside, in a competitive sense, if wage rates increase excessively.

This stable exchange-rate environment, and its implications for what is required to maintain competitiveness, is seen as one of the factors which sets the stage for an approach to incomes policy which is volun-

tary and which lacks explicit quantitative wage or price guidelines. This approach is viewed as a further contributing factor to favourable Austrian performance.

Also of interest is the discussion of the use of fiscal policy to "go against the tide" in the mid-1970s — that is, to counter the international recession to some degree. However, the build-up in the government and current account deficits which resulted was viewed as constraining further action of this type in the recession of the early 1980s.

## *Switzerland*

In terms of its recorded unemployment and inflation rates, Switzerland has been another miracle economy. However, the Swiss unemployment rate provides a somewhat misleading indication of the evolution of Swiss labour markets, as the impact of economic slowdowns on employment has, particularly in the recession of the mid-1970s, been substantially absorbed by outmigration of foreign labour. Thus, while the unemployment rate increased from negligible in 1973 to 0.7 percent in 1976, the level of employment fell by about 9 percent — the most severe decline of any OECD country. Similarly, while unemployment rates increased from 0.2 percent to 1.1 percent between 1981 and 1984, employment declined by 2 percent over this period.

Nevertheless, while perhaps not as miraculous as might appear at first glance, the Swiss experience is both impressive and interesting in a number of respects, especially when we recall that the Swiss economy has had to adjust to periods of major appreciation in the real exchange rate, and to the decline in the important watch-making industry. Unlike Austria, Switzerland has followed broadly monetarist policies in 1973, when the move to flexible exchange rates made such policies possible. As with West Germany, the pursuit of monetary targets has been implemented flexibly, with some willingness to diverge for significant periods when the exchange rate was under strong upward or downward pressure.

Professor Lambelet notes that one distinguishing feature of Switzerland is the virtual lack of anything which could be called fiscal policy in a macroeconomic sense. This reflects the decentralized nature of the government sector in the Swiss federation, and institutional features which cause a substantial lag in income tax collections behind the accrual of tax liabilities. He suggests that an advantage of this situation is that "conservative, non-activist budget policies do not work at cross purposes with monetary policy."

A number of factors are suggested by Lambelet as having been important to the relative success of Switzerland's "Friedmanite" overall policy approach: the large foreign labour force which serves as a buffer, conservative budget policy, and well-working labour markets. These labour markets are characterized by a high degree of decentralization in

wage determination and considerable flexibility of nominal wage rates; the high education, training and skill levels of the Swiss labour force which may contribute to adaptability; a very tough unemployment insurance system; and a well-developed system of apprenticeship, coupled with very low entry wages, which results in low unemployment rates for youth.

## *Australia*

Professor Gregory introduces his review of the Australian macroeconomic experience by noting the close similarity between unemployment and inflation movements in Australia and in the OECD as a whole, "despite flexible exchange rates, an Australian mineral boom, and a unique wage-setting institutional structure." The basis for the close similarities has not been fully explained. Gregory calls attention to it not to suggest that policy is unimportant or helpless "but to temper expectations as to what local policy makers might achieve" (Figure I-2E).

While the broad movements in unemployment and inflation in Australia have in general resembled those in the OECD as a whole, Australia experienced a sharper worsening of unemployment/inflation performance (in technical language, a sharper upward shift in the Non-Accelerating Inflation Rate of Unemployment or NAIRU) after the early 1970s. Gregory reviews the range of hypotheses which have been put forward, none of which has as yet provided an entirely adequate explanation. Many of these hypotheses have also been used to explain the apparent increase in the NAIRU for other OECD economies: the impact on labour market functioning of more generous unemployment insurance and welfare benefits, of the growth in two-income families, and of the growth in the government sector. Also suggested as possibly important in the Australian case is the change in immigration flows. But Gregory pays particular attention to the possibility that, under conditions of strong employment growth, the unemployment rate may not be a good indicator of labour market tightness. Increased demand for labour on the part of firms may substantially strengthen the bargaining power of those already employed even if a significant fraction of the labour force remains unemployed. Overtime hours provide an alternative indicator of tightness in the labour situations faced by individual firms. Gregory notes that this measure of labour market conditions has tended to suggest greater tightness than has the unemployment rate since 1975. The hypothesis that, for purposes of judging wage inflation pressures, the relevant notion of labour market tightness is "within the firm tightness," as measured by employment growth or overtime hours, provides an explanation of the acceleration of wages in the 1979-81 period when growth was strong but unemployment rates remained relatively high. If the hypothesis is correct, it implies that the NAIRU will depend on

labour force growth, investment, and the severity of cycles, as well as on the more usual influences on labour market functioning.

Gregory also explores the potential influence on wage inflation of price and real income expectations, and the influence on the latter of resource booms. There is some discussion of the potential roles for incomes policy and for other supplementary anti-inflation policy instruments, under different models of wage inflation and under conditions of resource booms.

### *United Kingdom*

Mr. Allsopp's discussion of the U.K. experience provides a blend of interpretation of the policy record and commentary on the evolution of economic thinking. He notes that, while the U.K. experience has much in common with that of the OECD as a whole, it is noteworthy for the fact that, from the 1950s through the 1970s, U.K. cyclical fluctuations occurred around one of the least satisfactory trends of real income growth and inflation. The discovery and development of North Sea oil is another aspect of the U.K. experience which distinguishes it from that of most other countries, as is the fact that the last recession was much deeper and occurred earlier than elsewhere:

The most outstanding feature of the United Kingdom, however, must be the extraordinary change in policy attitudes and in the perceptions of how macroeconomic policy works that has occurred over the last decade. In the early 1970s the consensus view on economic management in the United Kingdom could be typed as broadly Keynesian (perhaps extremely so) with the accent on demand management to maintain activity. In the 1980s policy became avowedly "monetarist" with the rhetorical emphasis on the supply side.

A significant theme of Allsopp's discussion is that while a major shift in attitudes has undoubtedly occurred, and is not limited to the Thatcher government and its supporters, we are a considerable distance from being able to set out a well-developed, analytical framework which might be viewed as the basis for the new approach. In particular, there is no model of the interaction of monetary policy, fiscal policy, the exchange rate, and aggregate demand, which provides an adequate explanation of British experience under the new policy regime. The critical role of the exchange rate, for example in the Sterling Crisis of 1976 and in the real appreciation of 1979-80, is stressed as is the lack of a model adequate to explain many of its movements.

The United Kingdom's rather dramatic experience, in terms of policy and economic performance, over the past decade provides illustrations of many of the key conundra of applied macroeconomic policy analysis. How does one assess the stance of monetary policy when "domestic

indicators" of policy (money supply growth) suggest a different degree of tightness than do external indicators (the exchange rate)? How does one define an appropriate indicator of fiscal policy, particularly under conditions of changing degrees of anticipated and unanticipated inflation and of major impacts on government revenues from North Sea oil? If fixed targets are chosen for the deficit, how serious is the implied loss of automatic fiscal stabilization?

It is noted that, to the extent there is an analytical framework for the new policy approach, it is cast primarily in equilibrium or consistency terms. For example, low money supply growth is required for consistency with low inflation in the long view; the deficit cannot exceed a certain level on average if stocks of debt are to grow consistently with stocks of the monetary asset and with nominal income. But "the focus on consistency and 'equilibrium' conceals a multitude of possible links and interactions: different views of the main interactions lead to widely different implications if fiscal policy varies relative to monetary policy." Allsopp notes that official comment on the impact of fiscal policy has been particularly schizophrenic:

The standard government line is that excessive public borrowing leads either to "crowding out" (cumulatively if the deficit persists) or to inflation. This combination of views is commonplace in OECD countries, but is in fact very peculiar. The statement can be seen as implying that a fiscal expansion is either deflationary or inflationary, a rather extreme form of hedging one's bets.

The expectations of, and rationale for, policy have evolved significantly even during the period of the Thatcher government. While monetarism was initially put forward as a means of achieving disinflation with minimum pain — owing to the hoped-for effects on inflationary expectations of a "credible" commitment to constrain monetary growth — "the 'credibility' of the strategy against inflation probably owed far more to the government's tolerance of adverse economic developments (the severity of the 1979–81 recession) than to the preannounced financial strategy — especially as its central feature, the targets for £M3 were, in the event, very substantially exceeded."

As the recession developed, the slant of government rhetoric changed. The early optimism that control of the money supply would bring down inflation with relatively small costs gave way to the argument that heavy recession was necessary to bring down inflation. The emphasis changed to the supply side, with ministers pointing to the supposedly beneficial effects on industrial relations, on workplace attitudes, productivity and competitiveness. The success of the counterinflation strategy continued to be ascribed to monetary policy (rather than to the direct effects of fiscal policy or exchange-rate rises).

## ***The Conduct of Macropolicy in a Federal, Regionally Diverse Economy***

Professors Westphal and Lambelet provided analyses of the impact of the federal nature of West Germany and Switzerland on the conduct of fiscal policy in these countries, and the ensuing discussion provided some comment on the Australian experience. Notable by its absence was any mention of concern in these countries to apply short-term general fiscal stabilization policy measures in a regionally differentiated way — an issue that has been raised by a number of commentators in Canada. (There has, however, been some regional differentiation of direct job creation programs in these countries.) This lack of concern reflects, at least in part, the fact that there seems to be no wide disparity in regional cyclical conditions in these countries. In West Germany and Switzerland most of the regions have reasonably well-diversified economic bases. In Australia substantial interregional labour mobility limits disparities in regional labour markets. It might be noted that while the possibility of regional differentiation of short-term stabilization policy has attracted little interest, there are, as in Canada, institutional arrangements whereby the central governments provide long-term assistance to weaker regions and their governments.

In West Germany and Switzerland, as in Canada, levels of government other than the central government account for a substantial fraction of total government spending and for the bulk of spending on public works. This practice is accepted as limiting the use of public works as a counter-cyclical instrument of policy. Further, with the possible exception of some Australian states, state and local governments in the three countries have generally given little weight to macro-stabilization considerations in their budgetary policy. In West Germany, public works spending by municipalities generally shows a procyclical pattern.

West Germany has developed one interesting institutional response to the problems which a federal structure may create for effective stabilization policy. The major revenue sources (income and value added taxes) are shared between the central government and the *lander* (states) in agreed proportions. In general, reductions in tax rates for these revenue sources require the consent of the upper federal legislative chamber which is composed of representatives of state governments. However, under a 1967 “law for stability and growth,” the federal government, not the federal parliament, has the power to introduce temporary changes of up to 10 percent in the income tax.

## ***The Role of Incomes Policy in Macroeconomic Strategy***

The session on incomes policy was based on presentations of the experi-

ence of three countries in which incomes policies of one type or another have played a major role in much or all of the period since the Second World War: Austria (Professor Frisch), France (Professor de Menil), and Sweden (Dr. Jakobsson). The session bore out Professor de Menil's introductory comment that "The term 'incomes policy' has as many meanings as the nations which have implemented such a policy have different institutional and political traditions."

Professor Frisch describes the institutions of Austria's incomes policy: the three chambers, representing all entrepreneurs, all employees and all farmers, which must be consulted by the government on economic and financial legislation and policy, and which, with the government, form the Joint Commission for Prices and Wages. This commission exercises indirect influence on wages through determining the date and sequence of new wage negotiations, and apparently suggests general factors to which bargaining parties might give weight in negotiations. But the commission does not intervene in individual wage negotiations. On the price side, there is some review of individual prices in certain sectors of the economy, but there are again no mandatory powers.

Thus voluntarism is an essential characteristic of the system, and the government is not viewed as playing a leading role. Underlying the success of the system is general acceptance that: "(a) the status quo of income distribution is 'fair,' and that incomes distribution should not be changed by means of wage and price policy, and (b) that a high level of employment is only possible if the international competitiveness of the Austrian economy is protected." Professor Frisch concludes his discussion by drawing possible lessons from the Austrian experience for Canada.

France is in many respects at the opposite pole to Austria in the role and conduct of incomes policy: "the consensus and support of almost any internal policy tends to be weak and ephemeral . . . Traditionally, the resolution of social conflict has required the mediation of a strong, authoritative central government." The French version of incomes policy has focussed on prices, which have been subject to one form or another of control over most of the postwar period. Wages have not usually been subject to direct controls, though controls over prices may have a form which provides employers with incentives to control costs.

Professor de Menil discusses the success of French policy as a supplement to monetary and fiscal policy in restraining inflation, and the potential by-products of near-permanent price controls. He flags concerns over impacts on efficiency and competition, and over biasing the economy toward stagflation — particularly through lessening downward price flexibility during recession.

Dr. Jakobsson's description of Swedish institutions and experience stresses the voluntary, non-governmental nature of incomes policy in Sweden. One feature of note in the Swedish experience is the extent to



which "wage drift" (increases in wages not related to contractual settlements) became significant as an offset to both the overall wage limitation and the narrowing of wage differentials promoted by incomes policy.

Dr. Jakobsson proceeds to explore whether any systematic relations are apparent, from a review of the data for a range of European countries, among various aspects of economic performance, and both the extent of centralization of wage bargaining and the degree of unionization.

### ***Macroeconomic Response to Export/Real Exchange-Rate Shocks***

This session was designed to explore the experience of countries which have been faced with a large, "favourable export shock" as represented by the coming into production of a major exportable (e.g., oil/natural gas), or by a major relative price increase for an important export. Various aspects of the adjustment to such "shocks" have been studied extensively in the academic literature over the past decade. As Professor Ellman notes with respect to analyses of the impact of having a major petroleum sector as part of the economy: "Most of these papers are just taxonomic exercises. They classify various ways in which an income-producing sector that employs almost nobody and has a big impact on net exports can affect the economy." Both Mr. Allsopp's paper, "The Economic Impact on North Sea Oil in the United Kingdom," and Professor Ellman's paper, "Natural Gas and the Dutch Economy," go considerably beyond such taxonomic exercises. They indicate the relative importance of the petroleum sectors in terms of output, exports and government revenues; they discuss the apparent macroeconomic impacts of these sectors, analyze the policy problems to which they gave rise, and evaluate the policy record. Also relevant to the general issue of coping with export shocks, and included in this session at the symposium, was a presentation by Professor Gregory on the impact of changes in the terms of trade for exports on the Australian economy. In this volume this material is included as the second part of Gregory's paper on the Australian economy (Part IV).

In the United Kingdom, North Sea oil accounts for roughly 4½ percent of GDP; net oil exports are equal to some 2½ percent of GDP, and government revenues from oil production are equivalent to 3–3½ percent of GDP or about 7 percent of government revenues. In Canada, oil and natural gas accounted for about 6½ percent of GDP in 1984. Net oil and gas exports were only 1½ percent of GDP, and government revenues associated with petroleum production (net of the oil import subsidy) were the equivalent of roughly 3 percent of GDP or 7 percent of government revenues. More than half of these revenues went to provincial governments.



Mr. Allsopp reviews the debate in the United Kingdom over the extent to which the existence of the oil sector, coupled with high oil prices, has imposed adjustment on other sectors. Given that United Kingdom oil supplies approximate what might be considered to correspond to long-run self-sufficiency, he makes the point that the U.K. economy is little, if any, better off than it would have been if there had been no North Sea oil and no OPEC price increases. It is devoting as much or more of its real resources to obtaining oil for domestic consumption as it did prior to the first OPEC oil price increase. There is thus no reason (in a full employment equilibrium world) to expect demand patterns to shift so as to call forth increased production of non-tradeable goods and services at the expense of (non-petroleum) tradeable goods production. It is the non-oil producing countries, rather than the United Kingdom, which have to adjust to a change (decline) in real income, and have to shift resources out of non-tradeables into tradeables production in order to pay for the increased real cost of their oil imports.

Allsopp analyzes the basic policy issues involved in coping with the impact of the oil sector, particularly with the fact that oil production is currently running well above the levels that are expected to be sustainable in the long-run and that the bulk of the "rent" from oil production goes to government. He makes a case for offsetting the impact on domestic consumers with tax cuts on non-oil products, for running a temporarily larger government surplus/smaller deficit, and for the government's investing an amount equal to the change in budget balance in foreign currency assets.

The petroleum sector in the Netherlands is substantially larger, in relative terms, than in the United Kingdom. It accounts for about 7½ percent of national income, for about 8 percent of exports, and for 20 percent of government revenues. However, like the United Kingdom, the Netherlands faces a situation in which levels of petroleum production, which are currently well in excess of domestic consumption, are expected to decline substantially over the next two decades. Ellman traces the changing course of Dutch policy with respect to the pace of exploitation of natural gas, in particular the promotion or restraint of exports. "On the whole," he concludes, "the government has acted as a destabilizing speculator."

Professor Ellman discusses whether or not the existence of the petroleum sector has been a major factor behind the difficulties experienced by the Dutch economy over the past decade. He rejects suggestions that attribute a large part of the economy's problems, particularly the severity of the early 1980s recession, to the impact of the petroleum sector. However, he does suggest that some of the problems of the economy are associated with the expansion in government transfer payments, public sector employment, and real private incomes, made possible by the use of government revenues accruing from exports of

natural gas. In a long-run sense, these export surpluses are “temporary,” they are already starting to decline.

Ellman stresses, for the Dutch economy, as Allsopp did for the U.K. economy, that existing econometric models do not provide a satisfactory means of sorting out competing explanations of recent economic performance: “public and official confidence in them is at a low ebb. Public confidence has been undermined by the criticism they have received from academic economists and by their failure to forecast turning points well. Official confidence has been undermined by their failure to give much weight to factors that dominate the current official vision of how the economy works.”

Professor Gregory explores the impact of the rapid growth in mineral exports during the 1970s on the Australian economy and on policy. As noted in the earlier discussion of Gregory’s paper, he draws attention to the fact that even larger shifts in the real exchange rate, more or less associated with the changing fortunes of resource export industries, have not sufficed to insulate Australia from general cyclical movements in OECD output and inflation.

The Australian government has frequently responded to real exchange-rate appreciation by providing supposedly temporary assistance (including import quotas) to Australian manufacturing. Such assistance has proved difficult to eliminate even when the appreciation has been reversed, and in general appears to have exacerbated long-run adjustment problems.

### ***An Overview of OECD Experience: Coming of Age in the 1970s: Reflections of a Practical Macroeconomist***

Dr. Higgins’s reflections are based on his experience in macroeconomic analysis and policy formation in the Australian Treasury and the General Economics Branch of the OECD. As with several other speakers, he stressed the increasing consciousness of the limitations of our understanding of the way the economy functions. The 1970s drew attention to the inadequacies of existing macroeconomic models in handling “supply-side shocks” — most obviously the OPEC oil price increases — in the challenging task of capturing the formation and effects of expectations and of threshold effects, and in incorporating the range of channels through which real wages influence employment. Higgins’s response is not to dismiss the usefulness of models, but to stress the need for further efforts which focus on the quantification of channels of influence neglected in the earlier models and on the explicit dynamics of economic behaviour.

Higgins also calls attention to the tendency toward increased interdependence of the OECD economies, as evidenced by the substantial increase in the ratios of trade flows to GNP. The implications of this

interdependence for policy formation have not been fully absorbed: "far less than optimal account is taken at the global, or OECD-wide level of the implications of the sum total of individual policies."

The political economy of policy formation is a further theme, and an appropriate one on which to end this introduction and invite the reader to commence the reviews of the experience of individual countries in which policy, and thus political factors, figure prominently:

It is trivial to observe that economic policy decisions are not taken by economic policy advisers and analysts; they are taken by politicians and politically attuned central bank boards. They require a sufficiently large constituency both among the decision-makers and the public at large from whom their authority derives. The place of dogma (or fashion if you prefer) in this process should not be overlooked. Ideas have to have adequate simplicity and directness or they won't readily establish the appeal which is necessary to translate them into action.

## *Notes*

This study was completed in January 1986.

1. Sylvia Ostry, "The OECD Economies in the 1980s: Coping with Change," *Transactions of the Royal Society of Canada, Series IV*, 20 (1982), pp. 83-94.

## **PART I**



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# **Germany and France**



## **Some Lessons from Stabilization Policy in the Federal Republic of Germany**

UWE WESTPHAL

In my survey on the macroeconomic policy in Germany over the last 10 or 15 years I want to concentrate on two aspects. The first is monetary policy, because the Deutsche Bundesbank has formulated a monetary policy strategy which is quite interesting and has been successful in coping with the inflation problem. The second topic concerns the efficiency of anticyclical fiscal policy and the effects of wage increases, with special reference to the question "How does the efficiency of fiscal policy depend on the occurrence of oil price shocks?"

### **Monetary Policy**

Present monetary policy in Germany cannot be understood without reference to adverse historical experience. Two main events in the past are influential on the conduct of monetary policy today: the great inflation of 1923 caused fear and uncertainty among the general population and a highly unjust redistribution of income and wealth; and during the "Third Reich" the central bank was forced to finance rearmament and then war. There was and still is a general consensus that all precautions should be taken to prevent a repetition of similar events. Therefore, two important consequences have been drawn. First, the central bank is now independent of any directive of the federal government; the central bank council decides on monetary policy measures on its own responsibility. Second, priorities for monetary policy targets are laid down in the Bundesbank Act. The principal objective is price level stability, but the Bundesbank is also expected to support the general economic policy of the federal government. Thus, the Bundesbank is supposed to contribute to a high level of employment and a reasonable growth of production.

However, the obligation to support general economic policies is limited by the condition that monetary policy measures must not collide with the primary goal of price level stability. The legal provisions thus leave no doubt about the hierarchy of goals.

According to the philosophy of the Deutsche Bundesbank the targets of price level stability and high employment, or high capacity utilization, may be in conflict in the short run, as described by the Phillips Curve. In the medium run, however, price level stability is the precondition of high employment or high capacity utilization. Indeed, if a central bank allows the price level to increase considerably, the inflationary process will accelerate by itself, leading to the necessity of a sharp stabilization crisis with long-lasting high unemployment rates. Thus, the Bundesbank expects a positive correlation in the medium run between the rate of inflation and the rate of unemployment.

### *Monetary Policy Strategy*

In order to fulfil its legal obligations, the Deutsche Bundesbank formulated a new monetary policy strategy in 1973/74. The most obvious aspect of this reformulation was the annual announcement of a monetary target for the next year. We now have 10 years of experience with this strategy — long enough to draw some conclusions.<sup>1</sup> I would like to focus on three questions:

- What are the essentials of this new monetary policy strategy?
- How did it perform over the decade 1973–83?
- What have been its problems?

The Bundesbank adopted the new strategy in a situation characterized by two features:

- Inflation rates had risen to more than 7 percent — a postwar record level by German standards. A strict control of monetary aggregates was therefore necessary to regain price level stability.
- After the breakdown of the Bretton Woods System the Deutsche Mark had begun to float against the U.S. dollar and some other important currencies. This floating was an institutional precondition for a policy controlling domestic monetary aggregates.

Thus, in 1973/74 both a necessity and a possibility for a policy restricting the growth of monetary aggregates existed. The first problem was to decide which monetary aggregate should be controlled. The Bundesbank defined a new concept: The “Zentralbankgeldmenge” (stock of central bank money). It consisted of currency in circulation outside the banking system and required reserves against domestic bank liabilities measured at constant reserve ratios. As can be seen from Table 1-1 both components have nearly the same weight, which remained approxi-

**TABLE 1-1 Central Bank Money and Components**

	1974	1977	1980	1983
	(DM billion)			
Currency in circulation outside the banking system	50.8	69.1	81.9	93.2
Required reserves at constant reserve ratios	47.2	64.8	77.4	92.7
Central bank money (Zentralbankgeldmenge)	98.0	131.9	159.3	185.9

mately unchanged over the last decade. Three factors in particular led to this new concept:

- The Bundesbank felt that the monetary aggregate should be primarily subject to its control, and virtually independent of the banking and non-banking sector.
- The monetary aggregate should not increase in case of a restrictive policy based on higher required reserve ratios.
- The monetary aggregate should be closely related to nominal GNP and should not respond strongly to short-run changes in interest rates.

The development of monetary aggregates over the last ten years shows that in periods of rising interest rates there is strong substitution of time deposits for sight (demand) deposits, leading to a growth rate of only 2–3 percent for M1, while M2 expands at much higher rates of about 20 percent. The opposite holds for periods of declining interest rates. Unlike M1 and M2, the “Zentralbankgeldmenge” and M3 are much less affected by the ups and downs in interest rates; their rates of change behave similarly.<sup>2</sup>

The next step is to quantify the monetary target. To do this, it would be helpful to have some econometric estimates of the strength of factors influencing the demand for central bank money. The Bundesbank does not provide the public with estimates. Implicit in the Bundesbank’s argument is the assumption that the elasticity of demand for central bank money with respect to nominal GNP is approximately 1. The monetary target is not based on the demand for central bank money resulting from the expected actual economic activity. Instead, it is oriented to potential output. For example, for 1984 the Bundesbank<sup>3</sup> argued as follows: an increase in potential output of about 2 percent could be expected and an increase in the price level of about 3 percent seemed unavoidable; thus, a monetary expansion of approximately 5 percent appeared to be reasonable. In order to have some room for manoeuvre the Bundesbank formulated a corridor for monetary growth of between 4 and 6 percent. These simple calculations are published and should be understood as a way of informing the population of the Bundesbank’s expectations. They

imply, for example, that if the claims of trade unions for wage increases are inconsistent with a 3 percent increase in the price level, the Bundesbank is not willing to accommodate the resulting higher rates of inflation. Thus, the trade unions have to bear the risk of a reduction in production and employment.

The announced targets are not strictly binding because the Bundesbank does not announce a single target figure but a rather wide corridor (since 1978/79); it declares its willingness to readjust the target in case of fundamental changes in the economic situation; and it has tolerated frequent and sizable deviations from the monetary target in the past. Within the given institutional framework the Bundesbank cannot determine the rate of expansion of the money stock directly. However, the monetary policy instruments have a strong impact on the interest rates in the short-term interbank money market. The conditions in this market are transmitted to interest rates on bank loans, bank deposits and bonds. The monetary aggregates are then affected via two channels:

- changes in interest rates lead to a substitution between the various components of monetary aggregates;
- at the same time, changes in interest rates affect the variables of the real sector with a distributed lag. Induced changes of prices, income and wealth influence the demand for monetary aggregates.

Thus, the central bank has the short-term money market under rather strict control. By changing these money market rates the "Zentralbankgeldmenge" can be influenced in the direction of the monetary target.

In the very short run, the money market rate can be taken as given. The Bundesbank meets the short-run changes in demand for central bank money at these rates. Short-run deviations of the actual value of the money stock from the target value are permitted in order to avoid unreasonable short-run changes in interest rates. The policy can best be understood by reference to Poole's analysis of optimal monetary policy under uncertainty.<sup>4</sup> In the short run the real sector, the IS-curve, is relatively stable, while there are a lot of short-run disturbances on the monetary side. Therefore, in the short run it is appropriate to fix the interest rate and thus avoid the transmission of monetary disturbances to the real side of the economy. In the medium run, however, the IS-curve is subject to larger disturbances while the monetary side is relatively stable. Thus, in the medium run it is more appropriate to control a monetary aggregate.

### *Historical Experience*

Table 1-2 gives target values and actual values of monetary growth.



**TABLE 1-2 Growth of Central Bank Money: Target Rates and Outcomes**

Year	Target Rate of Growth	Actual Rate of Growth
	(percent)	
1975	8	9.9
1976	8	9.3
1977	8	9.0
1978	8	11.4
1979	6-9	6.4
1980	5-8	4.8
1981	4-7	3.5
1982	4-7	6.1
1983	4-7	7.0
1984	4-6	

Larger deviations can be seen for the 1975-78 period when the target was formulated as an increase of the average level of the money stock between two years. Since 1979 the target has been formulated as a corridor.

The macroeconomic performance during the decade 1973-83 is represented by some key variables in Figure 1-1. During this period the rate of inflation was about 4.7 percent in spite of two oil price shocks. Monetary growth rates and interest rates followed a relatively smooth pattern, and strong zigzag patterns were almost avoided. Nevertheless, there were clear differences between periods of expansionary and restrictive policies. Between 1974 and 1978 interest rates were low and monetary growth was high. Between 1979 and 1982 the opposite held. Although the Bundesbank formulates quantitative monetary targets so as to avoid zigzag movements in interest rates, it does not abstain from an anti-cyclical policy.

The periods 1978 and 1980/81 have been problematic years for monetary policy. The reason can be seen from parts d-f of Figure 1-1. In 1978 the U.S. dollar depreciated very rapidly. To dampen the fall of the U.S. dollar the Bundesbank felt it should lower interest rates clearly below the American level. This policy led to a strong increase in monetary aggregates at the end of 1978 and beginning of 1979. It prevented a further appreciation of the Deutsche Mark. These effects have obviously contributed to the too strong and too inflationary recovery of 1979 which brought us severe balance-of-payments problems. The situation of 1980/81 was contrary to that of 1978. The Bundesbank tried to avoid a stronger depreciation of the Deutsche Mark and therefore raised interest rates although the German economy fell into a recession. Both periods show clearly that more flexibility in exchange rates does not mean international independence.

**FIGURE 1-1 Monetary Policy and Global Indicators, 1973-83**

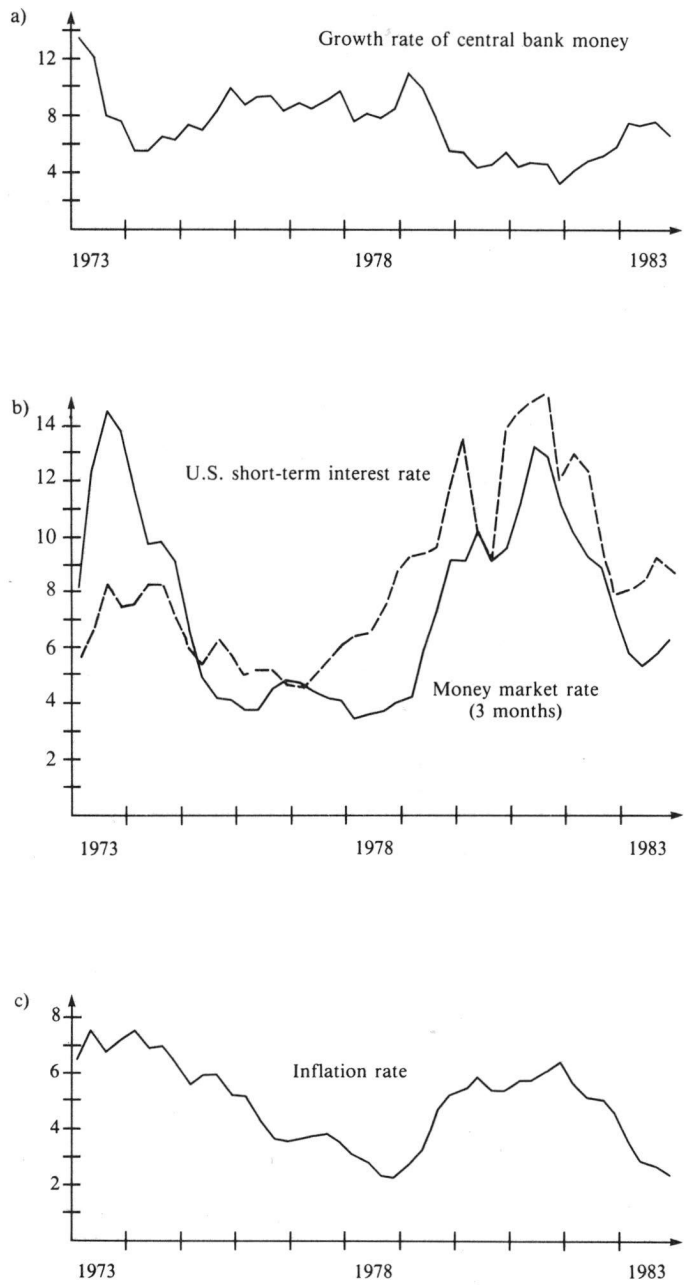
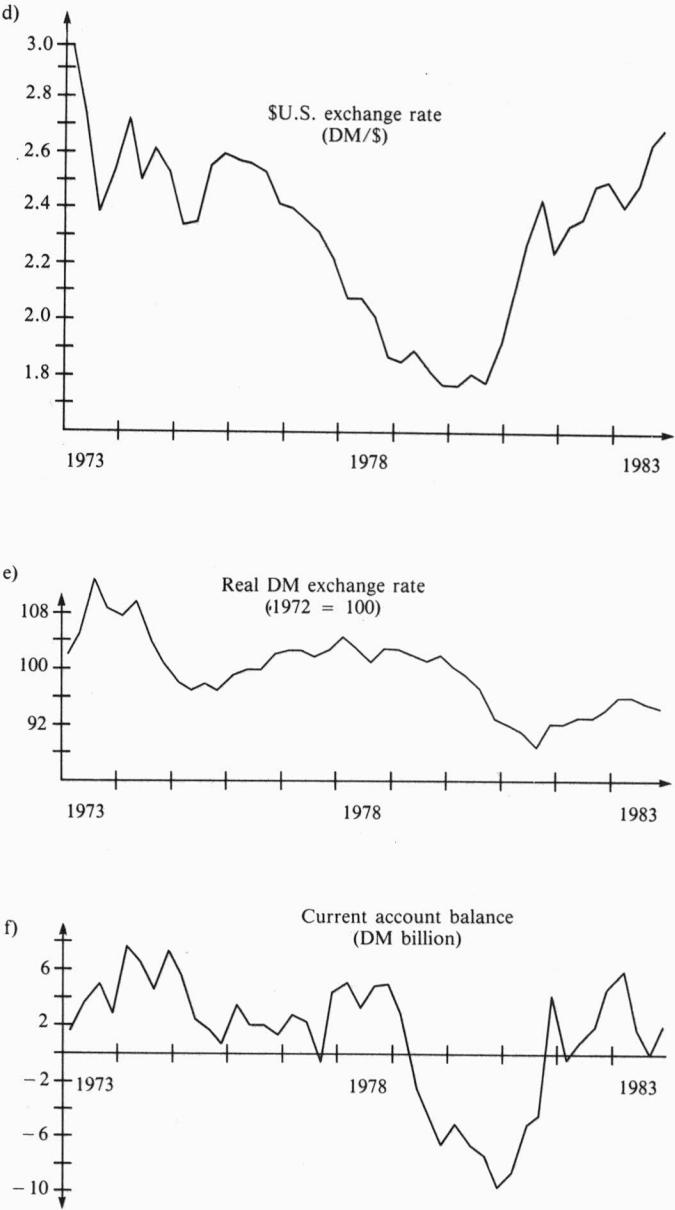
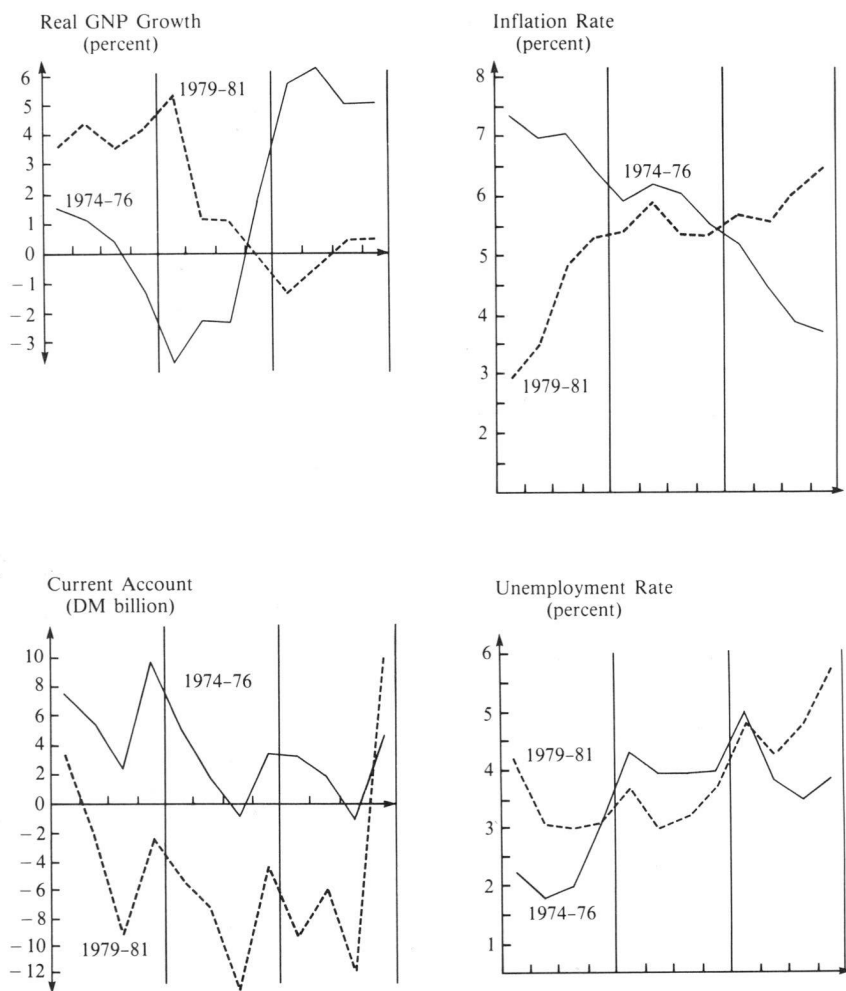


FIGURE 1-1 (cont'd)



**FIGURE 1-2 Macroeconomic Indicators in the Oil Crises**



### **Fiscal Policy, Wage Policy, and Oil Price Shocks**

Let us now turn to my second topic, to review the performance of fiscal policy and wage policy. My special interest is in the stabilizing or destabilizing role that fiscal policy and wage policy played during the two oil crises. The performance of the German economy in the second oil crisis differs very much from its performance during the first crisis. Figure 1-2 gives a picture of the behaviour of four important macroeconomic variables for the three years following the outbreak of each oil crisis.

## *Historical Background*

Immediately after the impact of the first oil price shock the GNP growth rate declined for about five quarters; in mid-1975 the recovery started. In contrast, during the beginning of the second oil price shock, GNP continued to grow considerably; then a long-lasting recession began that was overcome only recently. In 1974 the current account showed a record surplus in spite of the sudden increase in the oil prices. The second oil price shock, however, immediately brought the current account into deficit; it took nearly three years before the traditional surplus was restored. Between 1974 and 1976 the rate of inflation was continuously reduced from a high starting level to below 4 percent despite the increasing oil price. Conversely, during the second oil crisis an accelerating rate of inflation occurred. The rate of unemployment rose in both cases; however, the rise began at a later point in time during the second oil crisis.

Reasons for the different performance of the German economy after both oil price shocks can be found in the different initial conditions at the beginning of the shocks: different ways oil exporting countries used their additional income; different economic reactions of main trading partners; and different fiscal, monetary and wage policies in the Federal Republic.

I would like to focus on the effects of fiscal policy and wage policy. In the beginning of 1973 fiscal policy had turned sharply to a restrictive course, supported by a tight monetary policy. These measures were aimed at bringing down the rate of inflation which had reached a record level of 7 percent at that time. This restrictive course had been implemented without knowledge of the first oil price shock, which took the world by surprise at the end of 1973. A completely different fiscal policy was enacted shortly before the beginning of the second oil crisis. At the 1978 economic summit in Bonn the German government had agreed to contribute to an improvement of global economic activity and to a decrease in the German current account surplus along the lines of the "locomotive theory." In line with this agreement an expansionary public expenditure program was started in the second half of 1978. This impulse amounted to about 1 percent of the GNP and supported the recovery that was already under way.

Wage negotiations took place at the beginning of 1974 and 1979, shortly after the beginning of both oil price shocks. In 1974 the unions had not yet accepted the fact that the increase in the oil price meant an international redistribution of income, which required a reduction in real wages in order not to endanger employment. Increases in nominal wage rates of 13 percent were forced through. Real wages grew by 6 percent, significantly more than the productivity of labour. In 1979 behaviour was completely different. Nominal wage rates increased by 4.9 percent only,

while the rate of inflation was 4.1 percent. Real wages therefore fell behind the improvement in productivity.

### *Scenario Design*

The years 1973 and 1979 experienced similar external shocks, but fiscal and wage policy were opposite in both periods. Here history has brought about a fascinating constellation. If economics were a science based on experimental design, it would be difficult to set up a more interesting experiment.

Within the framework of the macroeconometric model SYSIFO of the German economy we tried to analyze two questions:<sup>5</sup>

- What were the influences of the restrictive fiscal policy in 1973 and the expansionary impulse after the Bonn Summit?
- What were the results of the high increases in real wages in 1974 compared with the moderate wage adjustments in 1979?

We thus wanted to know to what extent the differences in the economic performance after both oil shocks could be traced to the respective fiscal and wage policies and to what extent the success of these policies depended on the more or less unanticipated shock from abroad.

To identify the effects of fiscal and wage policy it is necessary to design reasonable alternative scenarios. First, we have to look more closely at the policy measures undertaken in both periods. The restrictive fiscal policy measures undertaken early in 1973 belong to the conventional instruments of demand management: a tax on investment expenditures of 11 percent, a time-limited increase in income taxes, and some reductions of expenditures by the central government. In contrast, conventional expansionary measures were undertaken at the end of 1974 and in 1975: additional public expenditures on construction investment, a time-limited investment bonus, and an increase in some transfer payments. In the fiscal policy scenario for 1973–76 we therefore assume that this succession of restrictive and expansionary fiscal measures of demand management did not take place.

In contrast to the 1973–75 period the fiscal policy measures of 1978/79 have a supply-side orientation: reduction of marginal tax rates and an increase in the value-added tax, additional public expenditures on research and development, and an increase in the allowances for children. It is reasonable to assume that these measures would have been undertaken anyway; because of the pressure exerted on the German government at the Bonn Summit they have been drawn forward. In the scenario it is therefore assumed that the measures would have been undertaken 18 months later and not in the second half of 1978.

In the wage policy scenarios it has been assumed that money wage

rates would have been increased in such a way as not to change labour income share. Let us call this a neutral wage policy.

### *Simulation Results*

Table 1-3 gives us, for the first oil crisis, the effects of the succession of restrictive and expansionary fiscal policy and of the wage increases as compared to the neutral case. The results for the real GNP growth rates show that fiscal policy reduced growth when it actually was high and increased growth rates when they were actually low or even negative. If these simulations are reliable, these results make a good case for the success of a traditional policy of demand management.

To avoid misunderstanding in the interpretation of these results we should keep in mind that a positive influence of fiscal policy measures on the growth rate of GNP in 1974.3 and 1974.4 does not mean a higher level of GNP. A higher level is realized only after the first half of 1975. Therefore, the succession of restrictive and expansionary fiscal policy lowered the unemployment rate somewhat, but not before mid-1975.

The last but one column shows that the restrictive fiscal policy contributed to the high current account surplus, especially in 1974. This surplus had a positive influence on the appreciation of the Deutsch Mark in nominal terms and therefore mitigated against the increase in import prices.

The columns for wage policy indicate that the high wage increases exerted a transitory expansionary effect on real GNP via the demand of private households. Higher consumer expenditures led to an increase in imports. This negative effect on the current account was reinforced by a deterioration in the international competitiveness owing to higher domestic prices. Since prices were going up less than wage rates, profit margins decreased. The negative effects of higher wages via lower profitability and lower investment, however, came only gradually, beyond the horizon of this simulation experiment.

Table 1-4 tells us quite another story with respect to the success of the fiscal policy during the second oil price shock. The expansionary fiscal policy program following the Bonn Summit in 1978 accelerated the already strong recovery in 1979. When the recession set in afterwards, counter-measures to compensate for the slack in demand were no longer at the government's disposal. While the current account was in a surplus of about DM20 billion in 1978, it turned to a deficit of nearly DM30 billion in 1980. About DM23 billion of this DM50 billion swing were due to fiscal expansion. This deterioration of the current account contributed to the weakness of the Deutsche Mark and made a restrictive monetary policy necessary at a time when unemployment was rising rapidly. The coincidence of the second oil shock and of badly timed fiscal policy measures

TABLE 1-3 Effects on Macroeconomic Indicators of the Fiscal Policy Measures in 1973-75 and of the 1974 Wage Agreement

Year/ Quarter	Real GNP (percentage change)			Consumer Prices (percentage change)			Unemployment Rate (percent of labour force)			Current Account (DM billion)		
	Effect of			Effect of			Effect of			Effect of		
	Historical Value	Fiscal Policy	Wage Policy	Historical Value	Fiscal Policy	Wage Policy	Historical Value	Fiscal Policy	Wage Policy	Historical Value	Fiscal Policy	Wage Policy
1973.1	6.5	0.0		6.4	0.0		1.5	0.0		1.7	0.0	
2	5.1	-0.4		7.3	0.0		1.0	0.0		2.9	0.3	
3	4.7	-1.3		6.9	0.0		1.0	0.2		2.0	0.9	
4	3.6	-1.3		7.3	0.0		1.6	0.4		4.9	1.2	
1973	5.0	-0.8		7.0	0.0		1.3	0.2		11.5	2.4	
1974.1	1.9	-0.9	0.4	7.4	-0.1	0.1	2.6	0.3	-0.1	7.6	1.1	-0.3
2	1.0	-0.7	0.5	7.1	-0.1	0.2	2.1	0.3	-0.1	5.6	1.4	-0.3
3	0.4	0.2	0.5	7.1	-0.2	0.6	2.3	0.3	-0.1	2.3	1.7	-0.4
4	-1.7	0.4	0.6	6.4	-0.3	0.7	3.5	0.3	-0.2	9.7	1.5	-0.3
1974	0.4	0.3	0.5	7.0	-0.2	0.4	2.6	0.3	-0.1	25.2	5.6	-1.3
1975.1	-3.5	0.9	0.4	5.9	-0.2	0.8	5.1	0.2	-0.1	5.3	0.7	-0.4
2	-2.9	1.6	0.3	6.2	-0.2	0.8	4.6	0.1	-0.2	1.9	0.1	-0.6
3	-2.5	2.2	0.2	-6.0	-0.2	0.8	4.6	0.0	-0.2	-1.0	-0.6	-1.0
4	1.7	1.5	0.0	5.6	-0.1	0.6	4.6	-0.1	-0.2	3.6	-0.5	-0.9
1975	-1.8	1.6	0.2	5.9	-0.2	0.8	4.7	0.1	-0.2	9.8	-0.4	-2.9



TABLE 1-4 Effects on Macroeconomic Indicators of the Fiscal Policy Measures in 1979-81 and of the 1979 Wage Agreement

Year/ Quarter	Real GNP (percentage change)			Consumer Prices (percentage change)			Unemployment Rate (percent of labour force)			Current Account (DM billion)		
	Effect of			Effect of			Effect of			Effect of		
	Historical Value	Fiscal Policy	Wage Policy	Historical Value	Fiscal Policy	Wage Policy	Historical Value	Fiscal Policy	Wage Policy	Historical Value	Fiscal Policy	Wage Policy
1979.1	4.4	0.4	0.0	2.9	0.0	0.0	4.8	-0.1	0.0	3.6	-0.6	0.0
2	4.8	0.7	-0.2	3.5	0.0	0.0	3.6	-0.2	0.0	-2.2	-1.1	0.3
3	4.0	1.2	-0.3	4.7	0.2	-0.1	3.4	-0.3	0.1	-8.8	-1.9	0.4
4	4.6	1.8	-0.3	5.3	0.3	-0.2	3.6	-0.6	0.1	-2.2	-3.0	0.4
1979	4.4	1.0	-0.2	4.1	0.1	-0.1	3.9	-0.3	0.1	-9.6	-6.6	1.1
1980.1	5.8	1.9	-0.3	5.5	0.4	-0.3	4.2	-0.8	0.1	-5.1	-4.1	0.4
2	1.5	2.2	-0.3	5.9	0.7	-0.4	3.5	-1.1	0.1	-6.8	-5.7	0.7
3	1.1	1.8	-0.3	5.4	0.7	-0.4	3.7	-1.4	0.2	-12.7	-6.6	1.2
4	-0.7	1.0	-0.1	5.3	0.8	-0.4	4.3	-1.6	0.2	-4.4	-7.3	1.4
1980	1.9	1.7	-0.3	5.5	0.7	-0.4	3.9	-1.2	0.2	-29.0	-23.7	3.7
1981.1	-1.7	-0.4	-0.1	5.6	0.7	-0.3	5.5	-1.5	0.2	-9.1	-6.1	1.7
2	-0.6	-1.2	-0.1	5.5	0.6	-0.3	4.9	-1.6	0.3	-6.1	-6.8	1.9
3	0.4	-1.9	0.0	6.1	0.5	-0.2	5.4	-1.4	0.3	-11.4	-5.8	2.2
4	0.6	-2.6	0.1	6.5	0.3	-0.1	5.4	-1.2	0.3	9.3	-4.2	2.0
1981	-0.3	-1.5	0.0	5.9	0.5	-0.2	5.3	-1.4	0.3	-17.3	-22.9	7.8

contributed a large part to the highly unfavourable economic situation at the beginning of the 1980s, which was characterized by weak demand, high inflation rates, large current account deficits, a weak currency, capital shortage, rising unemployment, and large government deficits. Although some improvements can be observed subsequently, economic policy is still fighting against the long-lasting effects.

### *Notes*

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1. A detailed description of German monetary policy is given in Deutsche Bundesbank, *The Deutsche Bundesbank: Its Monetary Policy Instruments and Functions* (Frankfurt, 1982).
2. M. Schulze-Ghattas and U. Westphal, "Monetary Mechanisms, Government Deficits, and External Constraints in Germany," in *Stabilization Policy in France and the Federal Republic of Germany*, edited by G. de Menil and U. Westphal (Amsterdam, 1985).
3. Monatsberichte der Deutschen Bundesbank, December 1983.
4. W. Poole, "Optimal Choice of Monetary Policy Instruments in a Simple Stochastic Macro Model," *Quarterly Journal of Economics* 84 (1970): 127–216.
5. U. Sander, "Die Rolle der Fiskal-und Lohnpolitik in den beiden Olkrisen," SYSIFO-Studien, No. 2 (Hamburg, 1982).



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## Macroeconomic Policy in France, 1974–84

GEORGES DE MENIL

In this brief survey, I will attempt to suggest what the principal lessons of French macroeconomic policy over the past decade have been for other medium-sized, open economies.

### The Setting

There are two reasons why the period from the first oil shock to the present is a particularly appropriate time frame for an essay such as this. The first is that 1973 marks a major turning point for the world economy. The generalization of floating rates and the emergence of oil as a commodity of a high and uncertain price were two of the major developments which durably changed the economic environment in which policy was to be conducted. The second reason for focussing on the ten years from 1974 through 1984 lies in the remarkable similarity and synchronous nature of the international shocks to which all major open economies were subject during that period. If there were ever a time for comparing the effectiveness of alternative policies, this was such a time.

This is not to say that developments prior to 1973 have no bearing on what happened subsequently, or that a new international economy was born de nuevo in January 1974. The heritage of growing inflationary biases and increasing energy and oil dependence contributed to the ways in which many industrial economies responded to the disturbances of the period in question.

### Three Policy Periods

French macroeconomic policy from 1973 to the present can be divided into three successive stages each characterized by a distinct overall

strategy. The first, which I shall call the Giscard-Chirac stage, runs roughly from 1974 through the autumn of 1976. The second, or Giscard-Barre stage, goes from September 1976 through May 1981. The third stage, in which France finds itself at the time of this conference, is that which corresponds to the Socialist program. In all of these stages, the underlying aspirations of policy were similar: each of the successive governments in question hoped to restore economic growth, reduce inflation, and deal in some way with France's energy dependence and foreign competition. But differences in the weights which they put on these objectives, as well as in the means they were willing to follow, led to significantly different policies.

### *The Giscard-Chirac Period*

Policy response to the first oil shock overlapped the end of one presidency and the beginning of another. The pall of Georges Pompidou's unacknowledged, but eventually fatal, disease hung over the first months of 1974. The president died in April, and there ensued a bitter and close election campaign, the climax of which was a run-off between Valéry Giscard d'Estaing, the Independent, and François Mitterrand, the Socialist. Giscard d'Estaing won, and named Jacques Chirac as his first prime minister. Chirac was to remain prime minister until August 1976. Partly because Giscard d'Estaing had been finance minister in Pompidou's last government, and partly because policy did not change materially until over a year after the election, it is convenient to group the first five months of 1974 with the subsequent period of Chirac's government. I shall, moreover, begin my description of this phase with a brief summary of developments during the immediately preceding years.

France participated in the synchronous overheating of the world's industrial economies which preceded the commodity disruptions of 1973. In 1972 and 1973 the France economy expanded in phase with that of most of its trading partners, and the French authorities did not respond to the accompanying acceleration of inflation with significant restrictive measures. At the end of 1972 credit controls were tightened, but public expenditures accelerated, and, in 1973, the government budget was expansionary. This policy was in marked contrast with that of the German authorities who, acting out of phase with most of their partners, turned to monetary and budgetary restrictions in 1972 in order to restrain the acceleration of inflation their country was experiencing.<sup>1</sup>

Not surprisingly, therefore, in 1974 the first oil shock contributed to a dramatic deterioration of the French current account (which went from a moderate surplus of 0.1 percent of private GDP to a substantial deficit of 3.6 percent),<sup>2</sup> as well as to a doubling of the rate of inflation. Output, buoyed by speculative inventory demand, continued to grow, however, during the year, and did not decline until the fourth quarter of 1974. When

the recession came, it was sharp and swift. Unemployment rose to 4.5 percent by the fourth quarter of 1975. The average growth rate for the year 1975 was marginally negative.

Perhaps the most important characteristic of governmental response to the developments of 1973 was the implementation of a strong energy program consisting of the rapid transmission of higher oil prices to domestic users and the implementation of what remains, in relative terms, the most extensive nuclear power program of any of the industrial democracies. Stabilization policy, however, was less constant. The first two-and-a-half years were characterized by rapid shifts from initially restrictive measures aimed primarily at restraining inflation to subsequently expansionary ones directed at stopping the rise in unemployment.

The restrictive phase corresponded roughly with the calendar year 1974. The tight credit norms of 1973 were maintained and nominal interest rates rose sharply, though not as dramatically as the rate of inflation in consumer prices. Fiscal policy, which had been expansionary the preceding year, was progressively tightened. The death of the president in the spring of the year, and the subsequent period of elections for his successor, interrupted this process temporarily, but the first measures of the new government, announced early in June, were distinctly restrictive. Personal and business tax increases were coupled with a further slowing down of government expenditures.

However, as soon as the recession began to unfold, the government reversed the direction of fiscal and monetary policy. Supplementary unemployment benefits were introduced in December 1974. Additional expansionary budgetary measures were taken progressively through the year 1975. The culmination of this phase was a FFr 30 billion program of fiscal stimulus announced in September 1975, which included a 10 percent temporary investment tax credit, substantial increases in public spending on roads and structures, and a significant one-time transfer to households. Throughout the year, monetary policy was also eased, to a degree that went beyond simple accommodation of the fiscal stimulus.

In retrospect, these attempts at fine tuning appear to have been a mixed success. Both the restrictive and expansionary phases of policy seem to have had effectively procyclical consequences. The spending reductions and tax increase of 1974 contributed to making the downturn of 1975 deeper, and the expansionary measures of 1975 accentuated the recovery of the following year. This recovery was marked by an alarming growth of real imports<sup>3</sup> and an acceleration in the rate of consumer inflation.

In both its restrictive and its expansionary phases, stabilization policy during these first two-and-a-half years was directed primarily at internal objectives — the reduction alternately of inflation or unemployment. Energy independence through nuclear power was a clear medium-term objective of policy. But the immediate consequences of short-term

demand management on the current account were not an overriding consideration.

Throughout this period the oscillations of the French current account and of the internal rate of inflation were mirrored in the movements of the parity of the franc. When generalized floating was introduced in March 1973, the French government withdrew the franc from the European Snake. It therefore floated comparatively freely in the years immediately following the first oil shock. From the end of 1973 to the middle of 1974 the franc depreciated 10 percent against the dollar and 12 percent against the Deutsche Mark. The year 1975 saw a reversal of both movements, and, in the second quarter, the franc rejoined the snake at roughly the Deutsche Mark parity at which it had left it. The pendulum swung back again in 1976, under the influence of the deterioration in the current account. The franc left the snake again in March 1976.

### *The Giscard-Barre Period*

Stability of the franc became, by contrast, the keystone of the policies which Raymond Barre, named prime minister by the president in August 1976, was to follow for the next three-and-a-half years.

In the judgment of the new government, the first objective of domestic policy had to be the restoration of external balance, which it viewed as a fundamental condition for preserving economic and therefore political independence without having recourse to protectionist measures. The government's second main objective was to reduce inflation by moderating nominal and real income. The achievement of these two objectives was publicly acknowledged to be inconsistent with a rapid return to full employment.

Though its objectives were uncompromising, the new government's methods were gradualist. A temporary price freeze in the fourth quarter of 1976 maximized the announcement effect of the change in policy, but the emphasis was to be on achieving durable changes in behaviour over time rather than quick results. The combined effect of monetary and budgetary policy as initially set was moderately restrictive. As international conditions changed, it came later to be moderately supportive. But the objective continued to be the maintenance of sufficient slack in the economy to uphold the parity of the franc and to allow time for the government's structural policies and market forces to bring about the necessary long-term adaptation to higher energy prices and intensified industrial competition. Simultaneously, a deliberate effort was made to moderate the growth in real incomes through a combination of persuasion and restraint in state and public sector negotiations.

The government defeated a serious challenge by the Socialist and Communist parties in important legislative elections in March 1978. After those elections it announced several new policy measures of a

structural nature. Most important among these was the decision to dismantle the system of price supervision and controls which, in different guises and forms, had operated continuously since World War II. This withdrawal of the state from what had come to be its traditional role as monitor of price adjustments was a major landmark of the government's program.<sup>4</sup> Another significant measure, intended to stimulate the growth of the stock market, was the enactment of a tax credit for individuals who increase their net holdings of publicly traded equities.

By the end of 1978 the economy was beginning to respond. The current account moved into surplus. Increases in the prices of public services notwithstanding, the underlying rate of inflation was declining below the 10 percent threshold. Conditions were conducive to the enactment, in the first months of 1979, of the broadened European Monetary System (EMS). A rising rate of unemployment was in part the result of the restraint of the previous year, and in part the result of special demographic factors.

The Iranian revolution and the resulting doubling of the price of oil in 1979 erased these positive results. The last two years of this period are marked by a return to large current account deficits, higher inflation, and slower growth. Though government policy responded with moderate additional stimulus, its basic thrust did not change until the presidential elections of May 1981.

### *Mitterrand's Socialist-Communist Government*

The election of François Mitterrand as president in May 1981, and the landslide victory of the Socialist and Communist parties in the parliamentary elections which followed one month later, led to a complete reversal of economic policy. Between 1979 and 1983 there were several instances in the major industrial democracies of reversals of economic policy following elections. In no case was the break quite as complete as it was in France in May 1981.

Mitterrand's program drew heavily on the Programme commun which the Socialist and Communist parties had agreed to ten years earlier, and which each had subsequently updated independently. The priorities were to restore growth by stimulating popular consumption and to redistribute income, wealth, and power. Whereas the previous government's objectives were to bring down inflation and reduce intervention by the state, the Socialist program called for substantial wage increases and entailed major extensions of the role of the state in several areas.

The stimulation of popular consumption and the redistribution of income went hand in hand. The key measures included a variety of increases in specific transfers to households of up to 25 or 50 percent, successive increases in the minimum wage designed to raise its purchasing power by 10 percent in two years, and the creation of over 200,000

additional public sector jobs. This program went along with an across-the-board reduction in standard weekly and annual hours of work compensated by increases in wage rates sufficient to maintain annual earnings. As a first step, the work week was reduced from 40 to 39 hours and a fifth week was added to annual vacations. The retirement age was also lowered from 65 to 60. Additional direct and interest rate subsidies to corporations and municipalities rounded out the Keynesian stimulus in the program. Higher marginal tax rates (the marginal rate on the top bracket passed from 60 percent to about 75 percent) and a new tax on capital added a fiscal dimension to the program of direct redistribution through mandated increases in salaries and benefits.<sup>5</sup>

The symbol of the program and the keystone of the microeconomic reforms it entailed was the nationalization of a large portion of the banking sector and nine of the largest industrial corporations in France. Government officials argued that this measure, which had been central to the demands of the Communist party for years, was essential in order to provide the state with the means to put its ambitious industrial policy into effect. Critics contested that the measure was politically motivated and undermined initiative in the nationalized corporations.

In addition to being a reversal of the policies which preceded it, the Socialist program ran directly counter to the policies of France's principal trading partners. At the very time that the French government was providing a major Keynesian stimulus, the governments of Great Britain, West Germany and Japan were attempting to reduce their budget deficits, and in the United States the Federal Reserve Board was maintaining a deliberately restrictive posture.

Whereas French government purchases of goods and services rose 4.4 percent from 1981 through 1982, government purchases of goods and services fell, on average, in France's major trading partners during the same period. Real GDP in France grew by 2 percent in 1982, whereas it declined that year by 0.5 percent in the OECD as a whole. Not surprisingly, the current account moved from a deficit of 1.4 percent of private GDP in 1980 to a deficit of 3 percent in 1982 (see Appendix Table 2-A1). After a July jump in response to higher labour costs, annual inflation remained roughly constant at 12 percent. However, during the same period the rate of inflation in France's major trading partners declined markedly. The imbalances led to two realignments of the franc within the EMS within eight months, one in October 1981, and the second in June 1982. The second devaluation was accompanied by stringent price controls for four months, whose progressive relaxation lasted a year. The controls proved to be the occasion for the reintroduction of certain forms of administrative price surveillance.

Some observers argue that the deterioration of the current account and the persistence of inflation which characterized the two years which followed May 1981 were more the result of the slowdown of world



economic activity during that period than they were specifically attributable to the Socialist program.<sup>6</sup> These observers point out that average growth in the markets to which France exports proved to be 6.5 percent lower in 1982 than the OECD had forecast it would be as of July 1981. Such a shortfall, viewed as a mechanical external factor, would go far in explaining the deterioration of France's external account. But this reasoning is faulted. The principal reason for the decisive slowdown in the growth of international trade in 1982 lay in the intensification of anti-inflationary restrictive policies in almost all the major industrial democracies at that time. The root of France's difficulties lay in its insistence on pursuing independent macroeconomic policies, out of step with those of its major partners. Keeping in step would have entailed implementing more restrictive policies. Instead, the Socialists injected a major dose of Keynesian stimulus and raised nominal and real wages. The proper measure of the contribution of Socialist policies to the deterioration of France's external accounts is not the difference between the expansionist Socialist policies which were enacted and a no-change scenario, but rather the difference between those actual policies and the restrictive policies that the French government would have followed if it had acted in concert with its major trading partners. That difference is clearly substantial enough to explain most of the deterioration.

One could describe French macroeconomic policy during the first two years of the Socialist government as the mirror image of German macroeconomic policy in 1972/73. The two episodes are examples of what happens when a government acts out of phase with its major partners. The results are highly asymmetric. In 1972/73, the fact that Germany was out of phase worked to her benefit. In 1981/82 the fact that France was out of phase in the other direction contributed substantially to the widening of her deficit and helped place the Socialist program as a whole in jeopardy.

The macroeconomic policies followed by the Socialist government during its first two years in office were not sustainable. They were hostage to a fundamental inconsistency. The program could be described as a limited and moderate version of the *Programme commun* in all respects except one — the preservation of open trade. The Communists particularly had pressed, and continue to press, for more protectionism. But Mitterrand's government, though it came close, nonetheless did not fundamentally violate the OECD trade pledge. It remained committed, at significant short-run costs, to the EMS and the relative stability of the French franc. In its first months in office the new government was willing, for example, to raise the money market rate from about 12 to 20 percent in order to defend the franc.

In principle, it would have been possible to sustain the high level of Keynesian stimulus and increases in real wages despite the resulting loss of competitiveness if the government had been willing to sacrifice

France's place in the trading system, and particularly in the Common Market, or, alternatively, to let the franc fall freely. The political implications of both of these hypothetical alternatives were unacceptable. The resulting inconsistency lead to the progressive indebtedness of the country. By the end of 1983 total outstanding foreign debt, private plus public, was US\$74 billion.<sup>7</sup> That process also had its limits.

Those limits were reached in March 1983. After the Socialist party lost the national municipal elections held that month, President Mitterrand appeared to hesitate between the alternatives of changing the constraints or changing the policy. He seems to have come very close to imposing temporary import restrictions and taking the franc out of the EMS. In the end he opted for a third controlled devaluation supported by the Germans, and a reversal of macroeconomic policy.

The principal features of the resulting Delors Plan are well known: an income tax increase of 1 percentage point for all taxpayers, a 10 percent surcharge for taxpayers whose liability is above a given threshold, selective increases in specific taxes and administered prices, significant reductions in government subsidies and expenditure, and the announcement of official wage and price norms. It is a classical mixture of budgetary and monetary restraint, on the one hand, and indicative incomes policy on the other.

Has the Delors Plan been sufficient to reverse the tendency toward progressive deterioration of the current account and successive devaluations? The trade gap has narrowed. A fourth devaluation which many had predicted would occur in the first quarter of 1984 has not occurred. One positive sign is the deceleration in the rate of wage increase. Nonetheless, sustainable levels of inflation and external balance have not yet been achieved, and France has not yet begun to repay its foreign debt. The main structural measures in the Socialist program — the nationalizations, the new labour laws, higher real wages, and higher rates of taxation — are all notably intact, and not likely to be changed by the present government.

## Conclusions

In the ten years from 1974 through 1984 France has been governed by two presidents and three prime ministers. Each of the three corresponding governments (identifying for simplicity a government with its head) has followed a different economic policy. Three conclusions emerge from a comparison of the results of these different policies.

The first concerns the demanding nature of the constraints imposed by interdependence. Any government which ignores them does so at its risk and peril. Moreover, and this is the second lesson, once external and internal balances begin to deteriorate, it is very difficult to reverse the process. Deficits tend to accumulate, and inflation once triggered tends

to accelerate, or at least persist, even when it is receding elsewhere in the world. The non-linearities in many of the principal mechanisms provide strong arguments for a cautious and conservative approach to the conduct of policy.

Finally, appropriate macroeconomic policies are not sufficient in and of themselves to ensure stability and growth. Monetary and budgetary discipline are unlikely to be other than temporarily successful if they are coupled with microeconomic policies which detract from, rather than enhance, competitiveness. If lasting success is to be achieved, the correction of macroeconomic imbalances must rest on the rapid and flexible responses of individual firms and households. Encouraging this flexibility should be one of the principal objectives of microeconomic policy.

APPENDIX TABLE 2-A1 Principal Macroeconomic Developments in France, 1970-83

	Growth Rates of Real GDP and Components													
	70	71	72	73	74	75	76	77	78	79	80	81	82	83
	(percent, annual rate)													
Gross Private Domestic Product	6.1	5.6	6.2	5.8	3.5	-0.2	5.1	3.2	3.9	3.6	1.0	0.2	2.0	0.7
Private Consumer Expenditures	4.7	6.3	6.2	5.6	3.3	3.3	5.6	3.2	4.7	3.5	1.5	2.1	3.5	1.1
Private Fixed Investment	4.6	8.6	8.3	6.7	1.0	-5.2	4.5	0.9	2.2	4.1	3.6	-1.6	-1.4	-1.9
Government Consumption	4.9	2.2	3.8	8.5	1.6	8.6	-0.6	0.4	6.8	2.9	4.5	5.0	3.2	3.3
Government Fixed Investment	4.5	-1.0	0.8	2.4	0.3	10.4	-0.8	-6.3	-3.0	1.4	0.9	-1.8	5.6	2.1
Exports	16.3	11.2	13.4	12.5	10.8	-1.5	10.7	8.5	6.1	7.3	2.4	5.3	-2.2	3.8
Imports	7.4	7.8	16.6	15.4	6.3	-7.5	20.7	2.2	6.2	11.4	7.2	1.6	6.3	-0.5

Expenditures and Receipts of Foreign and Government Sector

	70	71	72	73	74	75	76	77	78	79	80	81	82	83
	(percent of nominal GDP)													
Current Account Surplus (Deficit) <sup>a</sup>	-0.3	0.4	0.4	-0.2	-2.4	-0.1	-1.6	-0.8	0.5	-0.6	-1.4	-1.5	-3.0	-1.6
Government Expenditure on Goods and Services	18.3	18.1	17.7	17.7	18.2	19.3	19.2	19.0	19.0	18.9	19.3	19.9	20.4	20.5
Public Sector Deficit <sup>a</sup>	0.9	0.7	0.8	0.9	0.6	-2.2	-0.5	-0.8	-1.9	-0.7	0.2	-1.8	-2.6	-3.3

Utilization of Factors of Production													
	70	71	72	73	74	75	76	77	78	79	80	81	82 83
Unemployment Rate <sup>b</sup>	1.8	2.2	2.5	2.3	2.6	4.2	4.3	4.8	5.2	5.9	6.3	7.4	8.0 8.2
Rate of Manufacturing Capacity Utilization <sup>c</sup>	85.7	85.8	86.5	87.8	86.1	78.4	83.0	83.6	83.2	84.3	84.4	81.8	81.5 81.8
Wage Rates, Productivity, and Prices													
	70	71	72	73	74	75	76	77	78	79	80	81	82 83
	(percent change, annual rate)												
Compensation per Person-hour	12.0	12.6	11.8	14.4	18.7	18.6	15.0	13.0	12.7	13.3	14.9	14.9	16.2 10.6
Productivity per Person-hour	4.5	5.1	5.8	4.6	3.3	3.2	4.8	3.2	4.2	4.1	1.2	1.6	4.8 2.7
Import Prices	9.8	3.7	-1.9	6.8	42.7	-0.4	8.4	11.0	1.1	10.2	17.1	15.8	9.5 5.9
Consumer Prices	4.9	5.5	5.8	6.8	13.2	11.3	9.8	9.0	8.8	10.4	13.2	12.7	11.2 9.3
GDP Deflator	5.2	5.4	6.0	7.4	10.3	12.7	9.7	8.5	9.2	10.3	12.0	11.5	12.1 9.6
Interest Rates													
	70	71	72	73	74	75	76	77	78	79	80	81	82 83
	(percent)												
Money Market Rate <sup>d</sup>			4.95	8.91	12.90	7.93	8.54	9.07	8.00	9.04	11.85	15.30	14.87 12.54
Bond Rate <sup>d</sup>			8.10	8.86	10.91	10.49	10.45	11.00	10.65	10.63	14.03	16.40	16.62 14.62

APPENDIX TABLE 2-A1 (cont'd)

	Exchange Rates (FF/Foreign Currencies) and Terms of Trade (indices are = 1.0 in 1970)													
	70	71	72	73	74	75	76	77	78	79	80	81	82	83
Price of U.S. Dollar	5.528	5.496	5.050	4.458	4.814	4.286	4.779	4.913	4.513	4.254	4.226	5.437	6.572	7.622
Effective Exchange Rate <sup>e</sup>	1.000	1.021	0.997	0.952	1.012	0.914	0.954	1.015	1.036	1.023	1.025	1.145	1.259	1.384
Real Exchange Rate <sup>e</sup>	1.000	1.024	1.032	1.009	1.092	1.026	1.071	1.115	1.117	1.097	1.090	1.197	1.215	1.237
Terms of Trade	1.000	1.010	1.032	1.040	0.898	0.941	0.933	0.917	0.963	0.962	0.923	0.905	0.945	0.968

a. National income accounts definition.

b. Author's estimate.

c. From INSEE manufacturing survey.

d. From Bank of France. The bond rate is the average yield to maturity of new issues of corporate bonds.

e. Calculations by INSEE.

## Notes

This paper was presented at the symposium "Lessons from Recent European and Australian Macroeconomic Experience," organized by the Macroeconomic Research Section of the Royal Commission on the Economic Union and Development Prospects for Canada, Ottawa, June 8-9, 1984.

1. For a detailed analysis of the differences in response to key policy measures in France and Germany see G. de Menil and U. Westphal, eds., *Stabilization Policy in France and the Federal Republic of Germany* (Amsterdam: 1985).
2. The first figure is for the second quarter of 1973. The second figure is for the second quarter of 1974. The swing in annual averages is less marked. See Appendix Table 2-A1. INSEE Quarterly National Accounts.
3. For the three quarters from 1975.4 though 1976.2, imports grew at an average annual rate of 26.4 percent, while exports grew at 13.1 percent. INSEE Quarterly National Accounts.
4. Roughly simultaneously, the government also intensified its cost price policy in public pricing, raising the prices of several public goods and services to levels consistent with the phasing out of subsidies.
5. The specific measures adopted by the Socialist government from May 1981 through March 1983 are described in summary form in A. Fonteneau and P.-A. Muet, "La Politique économique depuis mai 1981: un premier bilan," *Observations et diagnostics économiques* 4 (June 1983): 53-80.
6. Ibid.
7. See F. Renard, "La Contrainte de l'endettement," *Le Monde*, May 17, 1984, p. 1.

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## Summary of Discussion on Papers Relating to Germany and France

ALASDAIR SINCLAIR

The question why unemployment rates rose steadily in both France and Germany was raised, particularly since it was important for Canadians to know why this occurred. Professor Westphal said that it was relatively easy to answer this question with regard to Germany since the increase in population could explain the increase in unemployment rates. He estimated that about one-third of unemployment in Germany could be classed as Keynesian, whereas the rest resulted from a lack of capital to employ the increased labour force resulting from demographic factors. Professor de Menil stated that there were similarities between France and Germany but that he doubted whether the demographic aspects had much applicability to Canada since they were so specific to the countries involved. For example, in the case of France, both the loss of population in World War I and the baby boom following World War II led to unfavourable demographic features.

One participant pointed out that neither author mentioned the European Monetary System in his discussion. Professor Westphal stated that the EMS was not a hindrance in Germany in carrying out an effective monetary policy. Professor de Menil felt that the EMS was important in France in determining policy. He noted that there was consultation among leaders from 1979 through 1981 in connection with the second oil shock, and that had there been no EMS it was unlikely that French policy in March 1983 would have been formulated as it was.

Since one of the lessons to be gained from the French experience is that a country cannot go against a trend without an extreme penalty, at least in one direction, the question arose whether a coordinated policy leading to economic growth among European and other nations was advisable. Neither panelist felt that the coordinated policy approach was



appropriate, at least at the present time. This was in part because earlier efforts at coordination had had negative impacts, particularly in Germany, and also because there did not seem to be much room for expansion, especially in France.

A final comment that rates of growth in the labour force were not sufficient to explain unemployment levels was scheduled for discussion at further sessions. In the event, however, the subject was not raised in any subsequent session.

## **PART II**



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# **The Netherlands and Sweden**



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## Recent Dutch Macroeconomic Experience

MICHAEL ELLMAN

### The Current Dutch Economic Situation

In order to understand the present economic situation in the Netherlands and the views and activities of the economic authorities, the best starting point is a sentence in the recently published annual report of the Dutch central bank: "It is getting better but it is not yet good."<sup>1</sup> I will begin by explaining why it is thought that the economic situation is getting better and then go on to explain why it is thought to be not yet good.

The Dutch economic situation is getting better for the following reasons: growth is picking up, inflation is low, the external position is strong, and there is a significant recovery in profitability (see Table 3-1). I will deal with each of these in turn.

The years 1980, 1981 and 1982 were years of economic decline. In 1983 the situation stabilized and in 1984 growth has resumed, albeit on a modest scale. It is generally expected that growth in 1985 will be at least as much as in 1984.

In 1980-82 the average rate of increase of consumer prices was about 6 percent, but in 1983 it was under 3 percent and in 1984 it is expected to be about 3½ percent. Not only has the rate of inflation halved but it has fallen to one of the lowest levels in the world. Indeed, in the autumn of 1983 we had some Keynesian economists who were worried that the country might soon experience a falling price level. It has not happened yet, but the fact that we had some economists worrying about it indicates the kinds of expectations that exist in the country with respect to changes in the price level.

**TABLE 3-1 Selected Macroeconomic Data**

	1980	1981	1982	1983	1984 <sup>a</sup>
Real Net National Income (change from previous year in percent per annum)	-0.7	-1.9	-0.4	0	2
Consumer Price Index (change from previous year in percent per annum)	6.5	6.7	5.9	2.8	3.5
Current Account Balance (as percent of net national income)	-1.7	2.5	3.1	3	3.7

Source: *Centraal economisch plan 1984* (The Hague, 1984), pp. 366-68, 131; *De Nederlandsche Bank N.V. Jaarverslag 1983*, Table 10-1.

a. Forecasts.

As far as the external position is concerned, the country is now in the middle of the fourth year of significant current account surpluses. At the present time, the Netherlands has one of the strongest current account positions in the OECD. In addition, there is another aspect of the external position that is officially viewed very favourably. Unit labour costs in manufacturing measured in a common currency relative to competitor countries have strongly improved since 1977. In fact, unit labour costs in manufacturing now show international competitiveness at the best level since the early 1960s. This has been achieved by a very low increase in nominal wages over the last few years. In 1983, for example, nominal wages rose by only 3.5 percent, which was the lowest increase in two decades.

The next positive aspect of the economy is the recovery in profitability. From the late 1960s onward there was a significant fall in profitability in the Netherlands, as in much of the OECD area. By 1981, which seems to have been about the lowest point, profitability in manufacturing had fallen to very low levels and, not surprisingly, employment in manufacturing was falling sharply. The year 1983 showed strong recovery for profits and 1984 is going to see a continuation of the recovery. Profitability is picking up again, and the authorities are pleased. It should be noted that there is a wide dispersion of profitability in the Netherlands. The natural gas sector is exceptionally profitable whereas manufacturing is in a rather sorry state (see Table 3-2).

A particularly important financial development has been that whereas in the years 1978, 1979 and 1980 the business sector was a net borrower, in 1981, 1982 and 1983 it was a net lender. This position enabled it to repay debt and improve its balance sheet. If growth continues in 1984 and 1985 the business sector will be in a much better

**TABLE 3-2 Profitability per Sector (profits<sup>a</sup> as % of net value added)**

Sector	1978	1979	1980	1981	1982	1983	1984
Agriculture	13	2	-1.5	18.5	20	14.5	12.5
Gas Extraction	96.5	96.5	97	97.5	97.5	97.5	97.5
Manufacturing	14	13.5	8	3.5	5.5	8.5	16.5
Utilities	48.5	44.5	46	43.5	51.5	52	55
Construction	13.5	11.5	12	15	17.5	16	15
Services	26	25.5	25	25.5	26	27	40
Total Excluding Gas Extraction Utilities and Housing Ownership	13	11.5	9.5	9	9.5	9.5	12.5
Total	22.5	21.5	21.5	23.5	24.5	25	28.5

Source: *Centraal economisch plan 1984* (The Hague, 1984), p. 378.

a. The figures refer to what is known in Dutch statistics as "other income" (i.e., non-wage and salary income). It includes the income of the self-employed and also interest paid to banks.

financial position to respond with increased investment than it was in 1980.

The above-mentioned factors (the revival of growth, low inflation, strong balance-of-payments position, international competitiveness, and improvement in profitability and balance-sheet position of business sector) are all reasons why the authorities think that the situation is getting better. However, it is still not good, for two reasons: one concerns unemployment and the labour market, the other real wages.

Some data on the Dutch labour market are set out in Table 3-3. The main features of this labour market are as follows. First, since 1972 there has been a long-term and fairly steady decline in market sector employment. It has declined in most years since that date and by 1983 was only about 85 percent of the 1970 level. Second, since 1980 total employment has been falling. Whereas in the 1970s the increase in public sector employment was greater than the decline in market sector employment, in the 1980s this is no longer the case. Third, the total labour force (employed plus unemployed) is rising. This is because of a combination of demographic reasons (large numbers of young people entering the labour market), social reasons (increasing numbers of married women seeking employment), and welfare state reasons (the employed are entitled to an attractive range of social benefits, from medical insurance to income-related unemployment and disability benefits). Fourth, unemployment is steadily rising. Taking the standardized OECD unemployment definition and the latest OECD statistics (which refer to February 1984), the Netherlands currently has the third worst unemployment rate in the OECD. The highest is Spain with about 18 percent, followed by Belgium with 15 percent and the Netherlands with 14.1 percent. (On this basis,

**TABLE 3-3 Labour Market (thousand person years)**

	1970	1980	1981	1982	1983
Market Sector Employment	3,750	3,513	3,425	3,295	3,205
Public Sector Employment	950	1,294	1,317	1,330	1,330
Total Employment	4,700	4,807	4,742	4,625	4,535
Unemployment	45	325	480	655	800
Total Labour Force	4,745	5,132	5,222	5,280	5,335
Transfer Income Recipients (unemployment benefits, disability pensions, old- age pensions, welfare recipients; but excluding sick pay and child benefits)	1,560	2,401	2,568	2,772	2,960
Transfer Recipients as Percent of Employment	33	50	54	60	65

Source: *Miljoenennota 1984* (The Hague, 1983), p. 23.

OECD definition and February 1984 figures, the Canadian figure was 11.3 percent, which is significantly lower than the Dutch figure.)

Another important aspect of the labour market is the rapid increase, both absolutely and relatively, in the number of people who are receiving transfer payments. In 1970 they were one-third of total employment but by 1983 they had increased to two-thirds. This means, of course, that there is a steadily rising burden on the employed to pay for these benefits. The government expects that in 1984 total employment in the market sector will stabilize and in 1985 will grow slightly, while unemployment is officially forecast to stabilize in 1985. These are regarded officially as important achievements. Independent forecasters have suggested that, with policies unchanged, unemployment will increase further in the late 1980s.

The other negative aspect of the current economic situation concerns real wages (i.e., gross money wages after allowing for direct taxes and social security contributions and for price changes). Average real wages in the market sector in 1983 fell by about 3 percent; in the state sector the fall was greater, about 5 percent. This was not the first year in which real wages fell, they fell in each of the years 1980–83, in total by about 9 percent. A further small fall is expected in 1984. The fall in personal consumption has been less than the fall in real wages because of the large increase in the number of persons receiving transfer payments.

## Government Policy

The above summary of the present economic situation provides the background against which current government policy should be viewed. The suggestion is sometimes made that the OECD as a whole should commit itself to an expansionary policy to overcome the recession; a

**TABLE 3-4 General Government Net Borrowing: Selected Countries, 1978-83<sup>a</sup>**

	1978	1979	1980	1981	1982	1983
United States	-0.2	-0.6	1.2	0.9	3.8	3.8
Japan	5.5	4.8	4.5	4.0	4.1	3.4
Germany	2.5	2.7	3.1	3.9	3.5	3.1
Canada	3.1	1.8	2.5	1.1	5.3	5.7
Netherlands	3.1	4.0	4.1	5.5	7.4	8.1

*Source: Netherlands* (Paris: OECD, February 1984), p. 54.

a. Percent of nominal GDP/GNP, surplus -, deficit +.

leading role in the expansion would naturally be played by countries with a strong current account position — for example, the Netherlands. This proposal is entirely at variance with the view of the Dutch government and will attract no support in The Hague. According to the Dutch government, current economic problems are a result of deep-rooted structural problems that have to be dealt with by long-term measures aimed at overcoming these structural problems; any attempt to deal with them by short-term demand management is a profound mistake. There is no external constraint on the Dutch government in view of its strong balance of payments position. Nevertheless, it does not pursue a Keynesian-type expansionary policy for reasons concerned with its interpretation of the long-term factors that have created the present undesirable situation.

The government has a three-pronged policy: to reduce the budget deficit, strengthen the market sector, and encourage work sharing and income moderation. Let us consider each policy in turn.

The Netherlands has a large and growing budget deficit. As can be seen from Table 3-4, general government net borrowing in the Netherlands is now quite out of line with Germany, with whom it is closely related in all economic policy matters, and also with North America and Japan. The government is extremely alarmed by this situation. Not only is general government net borrowing large, but it has grown very quickly in recent years. Between 1980 and 1983 it almost doubled (from 4.1 percent to 8.1 percent).

It has been easy to finance the deficit, as the country has a large savings surplus, a current account surplus and a strong currency. Nevertheless, the government is worried about the deficit, partly because it hopes to stimulate private sector investment and if private sector investment were much higher there might be a problem in financing the deficit. In addition, interest on and repayment of the national debt has become the most rapidly growing item of state expenditure.

A few years ago the most rapidly growing item of state expenditure was transfer payments to families; now it is servicing the debt. In 1975 debt service (interest and capital repayments) was only 5 percent of

state expenditure; in 1984 it is expected to be 14 percent and by 1988 is forecast to reach 26 percent. This alarming prospect results from a combination of high real interest rates, low growth rates, large and growing deficits, and financing the deficits by medium-term bonds. This debt service threatens a future increase in the tax burden and/or a reduction in other kinds of public expenditure.

Because of government concern over these developments, deficit reduction has become a major aim of policy. Three approaches have been tried:

- Cutting public sector salaries. On January 1, 1984, nominal salaries throughout the public sector were cut by 3 percent. This was an unusual measure by the standards of OECD countries since 1945 but, despite opposition from the public sector unions, it was not only announced but also implemented.
- Reducing public sector services. For example, some schools and hospitals have been closed and the pupil/teacher ratio in schools has been raised.
- Cutting social insurance and welfare benefits. There were cuts in these benefits on January 1, 1984; there will be more cuts on July 1; and there will probably be further cuts in 1985.

In summary, the first prong of government economic policy is to reduce the deficit, which has been rising every year for some time. The latest projections show that in 1984 the deficit will be less than 1983, and the government is very pleased with this forecast, although it has yet to materialize.

The second prong of current policy comprises a number of measures which together are known as "strengthening the market sector." This is an important matter since employment in the market sector has been falling for many years in the Netherlands. The government is quite rightly alarmed about the situation and wishes to reverse it. The first measure for strengthening the market sector is deregulation. This idea has come to the Netherlands from the United States and will be familiar to everybody here. The second measure is a reduction in corporation tax. In 1984 corporation taxes were reduced from 48 to 43 percent, and further reductions are possible. Another approach is described by economists as "introducing greater flexibility in the labour market." The government is considering making dismissal procedures more flexible, or, to express the same policy in different terminology, reducing workers' security of employment. (Subject to certain closely defined exceptions, since 1945 it has been illegal in the Netherlands to dismiss anyone without the prior approval of the local Labour Exchange.) The youth minimum wage has been reduced, as has the adult minimum wage. Other measures are under discussion. The final approach for strengthening the market sector is investment subsidies for firms. For a number of



years now private investment has been heavily subsidized. A number of economists consider this a strange policy for a country with serious unemployment and fiscal problems. The government, however, thinks that it is necessary because profits have been low and investment is necessary for the future viability of the economy.

The third prong of current government policy is work sharing and income moderation. In the Netherlands these measures are closely linked, a situation which may require explanation.

Work sharing is backed by the trade unions for classical trade union reasons. They assume that there is a fixed quantity of work around and, therefore, social justice requires that it be divided up among as many people as possible. The Dutch trade unions, unlike those in Germany, recognize that if labour costs are increased in a small open economy such as the Netherlands, there will be a reduction in the total labour required. Therefore they are prepared to pay for a reduction in working hours by reducing money wages below what they would otherwise be.

A national agreement was reached at the end of 1982 between the central trade union organizations and the central employers' organization; the trade unions agreed to trade off the existing system of automatic twice-yearly indexing of wages to consumer prices against a reduction in the standard workweek by 5 percent over two years. Organized business accepted this agreement partly as a way of slowing down the growth of unemployment and partly because it looked at the agreement in the context of controlling money wages. Indexation had long been unpopular with employers, but they had been too weak to abolish it. This was attempted once in the late 1970s but was defeated by the trade unions after a well-organized program of strikes. In 1982 the trade unions were prepared to surrender regular and automatic wage indexing in exchange for reductions in working time.

A general 5 percent reduction in working time for 1983–84 was agreed on in 1982 and it was left to further negotiations, first on an industry and then on a firm level, to determine how exactly this scheme should be implemented. In general, employees have been given extra half and whole days off. The plan is attractive both to trade unionists, who hope to share the total amount of work among more people and so reduce unemployment, and to firms, who see it in the context of keeping control over money wages. Work sharing as a means of combatting unemployment is not an exclusively Dutch policy. It is supported by the EEC as a whole, with the exception of the United Kingdom.

How should the present economic situation be evaluated? The result depends on our particular perspective. If we look at the situation from an official perspective, on the whole the situation is positive. Things are bad, but they are getting better. There are, however, two possible short-run problems. One is a possible wages explosion beginning in the export sector. Because of the control of domestic money wages in the past few

years and the recovery in the world economy, the export sector is doing well at the present time. A number of exporting firms are very profitable. Hence there is a danger that a wages explosion will begin in the export sector and, via a Scandinavian model of inflation, spread over the whole economy. This would undo the good effects achieved by wage moderation over a number of years. The other possible short-run problem concerns the international economy. It is not clear that the upswing in the United States will continue indefinitely. Furthermore, there is the continual possibility of an international debt deflation triggered by a major default. Disagreeable developments in the world economy would immediately affect the Netherlands. There is also a possible medium-run problem. The next recession is widely expected in 1986, when unemployment may rise to very high levels. This will be a severe test of the government's ability to continue along its present path.

If we look at the situation from the standpoint of the working population, then the present situation is disagreeable. Reducing the length of the working year with pro rata reductions in real wages means a decline in living standards for households with an unchanged participation rate. Trying to export the unemployment by accepting real wage cuts also means a reduction in living standards in households with an unchanged participation rate. If we adopt the standpoint of the recipients of transfer payments, the situation is again gloomy. The level of these payments has already been cut by the government for policy reasons and further cuts are likely.

As far as the future of the Dutch economy is concerned, that depends very largely on developments in the other OECD countries and in the rest of the European Community in particular. The Netherlands is a small open economy. The government considers that it has to get the structure of the economy in balance so that it can adapt to whatever happens in the outside world. This automatically means that if there is a recession in the outside world there will be a recession in the Netherlands, and vice versa.

## Lessons

What lessons for economic policy in general can be derived from Dutch macroeconomic experience? I think that there are eight such lessons.

The first is that there really is a "crisis of the welfare state."<sup>2</sup> It is not an invention of conservative governments or economists but a real phenomenon. A major blow to the economics of the welfare state is the negative balanced budget multiplier sometimes called the inverse Haavelmo effect (Knoester, 1983). In a well-known paper Haavelmo (1945) argued that the balanced budget multiplier is positive. This means that an increase in government expenditure, financed by increasing taxes, will increase the national income. This proposition has played an

important role in the theory of the welfare state. Originally a radical and surprising result, for a whole generation of economists it was so obvious as not to need arguing. Commenting on Reaganomics, Cornwall (1983, p. 220) simply assumes that cutting expenditure and taxes by the same amount cannot increase output, because "the balanced budget multiplier theorem tells us that by cutting taxes and government spending by similar amounts, GNP falls by the size of the budget cut, but disposable income is unchanged."

The possibility that the balanced budget multiplier might be negative was first extensively discussed in the Netherlands in the mid-1970s. This discussion reflected a situation in which the attempt, after the first oil shock, to use Keynesian demand management techniques failed to have the desired and expected results. A recent estimate of the value of the negative balanced budget multiplier for various countries (Knoester, 1983) suggests that after five years an increase in public spending of 1 percent GDP financed by a simultaneous increase in direct taxes or social security contributions reduces output by 2 percent in Germany, 3 percent in the Netherlands, 1 percent in the United Kingdom, and 2 percent in the United States.

The crucial behavioural variable that makes the balanced budget multiplier negative is the forward shifting of increases in direct taxes or social security contributions on to profits and prices. If business firms are assumed to be price takers (e.g., because of international competition), then the forward shifting erodes profitability and hence employment and investment. If firms are assumed to be price makers (e.g., because of mark-up pricing), then the forward shifting reduces exports and increases import penetration. Either way (or as a result of some combination of the two), forward shifting reduces output. The forward shifting is assumed to result from the reaction of the unions to the tax or contribution increase.

The fact that the balanced budget multiplier can be negative is a neutral empirical finding which can be fitted into a wide variety of theoretical structures. For example, Rowthorn (1977) has adapted it to a Marxist model of inflation. Similarly, it can easily be adapted to supply-side economics. It enables the crude Laffer Curve to be replaced by a more firmly based empirical and theoretical structure while leaving the policy conclusions unchanged.

Furthermore, different policy implications can be derived from the negative balanced budget multiplier. For Thatcherites and Reaganites, the obvious conclusion is that, when the balanced budget multiplier is negative, an expansionary economic policy requires a balanced reduction in government expenditures and taxes. For a Dutch social democrat, in contrast, the obvious conclusion is that if an increase in transfer payments is necessary on grounds of social justice, then trade unions should accept lower real wages and not attempt to pass the burden of

higher taxes/social security contributions on to the employers (since this will simply increase unemployment and reduce output).

Another interesting and important economic aspect of the crisis of the welfare state concerns the rate of profit. In Keynesian thought it is real wages that are the residual in the economic system. If as a result of, say, an upswing in animal spirits, investment rises at full employment, then prices rise relative to money wages so as to generate the necessary profits. From the late 1960s onward it became increasingly clear throughout the OECD area that this mechanism could not be relied on. In the Netherlands, from the late 1960s onward, profits and not wages were the residual item in the economy. Increases in taxes or employee social security contributions were passed on by organized labour to the employers. The latter responded to the increase in labour costs and squeeze on profits by shedding labour at home and switching production to cheap-labour countries. Where this situation exists, welfare state programs, designed to improve the position of underprivileged groups, may actually worsen it. By increasing the burden on employees, who pass it on to employers, who respond by reducing employment at home and transferring production abroad, domestic employment is reduced at the expense of socially marginal and vulnerable groups. Under these circumstances, programs to increase employment in the market sector require primarily a reduction in the burden of taxes, social security contributions, and other burdens on employees and employers.

Another economic problem of the welfare state is that in the long run it can become a built-in destabilizer. In the short run the welfare state is a built-in stabilizer. When the business cycle turns down, the decline is less than it would otherwise be since social insurance and welfare programs pump extra money into the economy. In the long run, however, the situation is different. The social insurance system may prevent employment from stabilizing, let alone recovering. This is because of its supply-side effect of increasing costs and squeezing profits and thereby reducing employment and output. When unemployment rises, the burden of taxes and social security contributions necessary to finance the increase in unemployment and welfare benefits also rises. This increase in costs itself wipes out jobs. Firms which are price takers (e.g., because of international competition) find their profit margins squeezed or are forced into bankruptcy. Firms which fix prices on a cost-plus basis lose overseas and domestic markets to foreign competition. Firms transfer economic activity to countries where labour costs are lower and profit margins higher. Firms engage in labour-saving investment, substituting relatively cheap capital goods for expensive labour. The rise in unemployment caused by the reaction of firms to higher costs leads to higher taxes and social security contributions to finance the increase in unemployment and welfare benefits. The higher taxes and social security contributions lead to higher unemployment, and so on in a vicious circle.

This built-in destabilizing effect is worsened in the Netherlands by the fact that the welfare state is financed by payroll taxes which fall most heavily on labour-intensive businesses in the market sector. Naturally this built-in destabilizing effect will be greatest in a small economy where the price level is determined by foreign competition and the authorities successfully pursue a hard currency exchange-rate policy.

There are a large number of other problems resulting from the high level of taxes and social security contributions. There is, for example, a huge difference between net pay increases to employees and the gross cost of such increases to employers. In the Netherlands today, to give a worker on average earnings a net increase of £100 costs an employer £250. The balance of £150 is accounted for by taxes and social security contributions. The result is that pay increases appear to employers primarily as voluntary tax increases. Pay increases, of course, are often necessary and desirable for many employers in order to motivate their staff and raise labour morale. The decline in the effectiveness of labour organizations resulting from the natural dislike of employers for voluntary taxation is a serious problem. It both undermines the effectiveness of organizations and generates widespread tax avoidance (fringe benefits, expenses, and so on). For highly paid individuals (the top tax rate on earned income is 72 percent) the present tax system is an enormous incentive for speculation (there is a wealth tax but no capital gains tax), tax avoidance and tax evasion. The huge discrepancy between the net pay received by employees and labour costs to employers has also generated a significant black sector (or underground economy). It is commonly thought, for example, that about 6 percent of the economic activity of Amsterdam is in the black sector. It was never the intention of those who supported the relevant welfare state legislation to undermine the effectiveness of organizations and create a proletariat outside the protection of the law, but that is what has happened. Tax avoidance and evasion are flourishing activities in the Netherlands, whereas white market sector employment has been falling for more than a decade. In general, during the heyday of the welfare state (the 1970s), the interface with government — that is, a good understanding of the tax, social security, subsidy, regulatory and political systems — was more important for the financial results of business than any other aspect. This development was dangerous for the future of the economy since it distracted management attention from technical innovation and the needs of customers. Thus, the current government stress on the need for profitability, deregulation, and the cut in corporation tax. Similarly, for any family, the ability to manipulate the tax and social security system may have more effect on their net income than working more, harder, or better. This too has adverse effects on the economy.

My second lesson from the Dutch experience is that the harmony model of society is favourable to low inflation but does not ensure full

employment. Some writers have suggested that the harmony model is favourable both to low inflation and to full employment. It certainly helps to attain low inflation, but it does not ensure full employment.

The third lesson is that pre-Keynesian monetary, fiscal, and exchange-rate conservatism, such as is now being practised in the Netherlands, is absolutely no guarantee of steady growth and full employment. The policies are being applied, but steady growth and full employment are not in sight.

The fourth lesson is that a modern capitalist economy can survive high levels of unemployment without any serious political consequences. The Dutch government nearly collapsed this year, but this was for reasons (the installation of U.S. missiles) entirely unconnected with domestic economic policy. It is true that there is now a racist party in the Netherlands which aims to keep foreigners out, and that it is represented both in local authorities and in the national parliament. Its representation in parliament may well grow in the future. Nevertheless, it is now, and is likely to remain, a marginal phenomenon.

The fifth lesson is that small countries are dependent on external factors. It is obvious in the Dutch case that the overall prosperity of the country depends primarily on external factors. It is impossible for the country to prosper unless the countries with which it trades also prosper.

The sixth lesson is that there can be a wide gulf between ideology and reality. Consider, for example, the current economic upswing in the Netherlands. Ministers argue that the upswing should be ascribed to the successful policies they are pursuing. Critics tend to argue that it is the Keynesian policies being pursued in the United States and the normal operation of the trade cycle that are the main explanations.

The seventh lesson is that work sharing with constant labour costs is feasible. Under certain conditions workers are prepared to trade in part of their incomes in exchange for leisure as a result of solidarity with the unemployed.

My final lesson is that a centralized trade union movement, such as exists in the Netherlands, makes a significant difference to the menu of feasible policies for a country. Work sharing and low inflation, for instance, are closely related to the fact that there is a centralized trade union movement with a national perspective and an interest in the fate of the unemployed.

## **Conclusion**

In the United States, supply-side economics, combined with Keynesian fiscal policy and a monetary policy constrained by the need to maintain the solvency of financial institutions and overseas debtors, has led to a strong upswing in the economy. What is now being tested in the Netherlands is the capacity of supply-side economics, combined with

pre-Keynesian fiscal, monetary and exchange-rate orthodoxy, to generate growth in a small open economy which is also a welfare state with heavily regulated and concentrated markets. Results so far are mixed. In terms of living standards the experience of the 1980s is unpleasant but not catastrophic (unlike Poland or Mexico in recent years or many countries during the Great Depression). In terms of unemployment the situation is gloomy. For businesses in the internationally competitive sector with a good market position, prospects are fairly good. Inflation is low, domestic wage pressure very weak, costs relative to overseas levels have declined and are declining, there is an abundance of labour (much of it skilled and highly qualified), infrastructure is available, international trade and technical progress are creating investment opportunities, public services work efficiently, and there is a politically sympathetic government. The outcome depends on the extent to which the market sector responds to the opportunities available and to external factors.

## Notes

This paper was presented at the symposium "Lessons from Recent European and Australian Macroeconomic Experience" organized by the Macroeconomic Research Section of the Royal Commission on the Economic Union and Development Prospects for Canada, Ottawa, June 8-9, 1984.

1. *De Nederlandsche Bank N.V. Jaarverslag 1983* (December 1984), p. 13.
2. See, for example, *The Welfare State in Crisis* (Paris: OECD, 1981). See also, Ellman (1984).

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## Economic Growth in Sweden

ULF JAKOBSSON

For the Swedish economy the 1970s and the beginning of the 1980s is a period of slow growth and growing structural imbalances. To a considerable extent the Swedish problems are part of a broader international picture. Qualitatively, the Swedish problems could be found in most or all industrialized countries. In some areas, notably industrial growth and GDP growth, the Swedish performance is distinctly worse than, for example, the OECD average. Conversely, the performance is better than the average in the area of employment. To a considerable extent the favourable employment situation could be attributed to a strategy of bridging over the international recession with public spending. For the 1970s Sweden has a record of growth of public sector employment that is uniquely fast in an international perspective. Strongly visible effects of this strategy are rapid growth of expenditure and deficits in the public sector and a large balance-of-payments deficit in conjunction with decreasing investment.

An overview of developments in the Swedish economy during the last couple of decades is given in the next section of this paper, "Some Indicators of Overall Economic Performance." One conclusion is that even if industrial investment has stagnated, only a small fraction of the decrease in productivity could be explained by that factor. The macroeconomic disturbances in the Swedish economy are certainly strong. But at the heart of the problems seems to be an increasing rigidity and a lack of capacity to adapt to a changing environment. It is of course difficult to quantify concepts such as lack of flexibility and increasing rigidity and it is still more difficult if not impossible to quantify the resulting effect on overall economic performance.

There are, however, important areas of the economy and of economic



policy where it is possible to observe significant differences between the 1950s and 1960s on the one hand and the 1970s on the other. Three such areas are analyzed in this paper. The section "Decline of the Swedish Model" discusses wage formation and flexibility in the labour market. The section "Adjustment to a Changing Environment" deals with the adjustment requirement of the 1970s. It is shown that the adjustment in the Swedish economy on most points went in the wrong direction. An important explanation for this development was a government policy of subsidies and transfers to ailing sectors. The section "Growth of Public Expenditure" treats public sector spending and financing. In 1970 public sector expenditure equalled 45 percent of GDP. In 1982 the same figure is close to 70 percent. This increase has been financed by an increase in the tax ratio and a rapid growth of public borrowing.

In all three areas of the economy discussed so far the changes between the 1960s and 1970s have all worked toward slower growth and a poor functioning of the economy. It is not easy, however, to quantify the effects of these changes on overall economic performance. Still, the evidence is strong that the changes in areas indicated here are the main explanations for the marked deterioration of growth and economic performance in the Swedish economy in the 1970s.

To escape from the present disequilibrium it is probably necessary to change economic policies in all the areas mentioned. In the last few years policies have changed on some points, and the competitive position of Swedish industry has been improved. This gain has been achieved by devaluations, however, and not by internal adjustment. Since 1980 there has been a slowdown of the growth of public sector expenditure and in 1984 zero-growth is forecast. Many of the industrial subsidies have been phased out. Whether these changes are sufficient to get back to a non-inflationary growth path is discussed in the final section, "Present Policies and Prospects."

## **Some Indicators of Overall Economic Performance**

### ***Output and Employment***

In the 1970s there was a dramatic decline in economic growth in Sweden. In the 1950s the average yearly growth of GDP was 3.5 percent. In the 1960s the average growth rate increased to 4.5 percent per year. In the 1970s the growth rate fell back to 1.75 percent per year. A more detailed picture of this turnaround is given in Table 4-1.

The actual turning point occurred in 1973/74. The decline in production and productivity was most significant in the industrial sector. After 1974 this sector experienced an actual decline in production in conjunction with a very modest productivity performance. There was also some decline in production and productivity growth in other private business

**TABLE 4-1 Production, Employment and Productivity, 1965-82**  
(annual change in volume, percent)

	Production	Employment <sup>a</sup>	Productivity
Industry			
1965-70	5.1	-1.8	7.0
1970-74	3.5	-1.8	5.3
1974-81	-1.0	-2.6	1.6
1980-83	-0.1	-3.1	3.0
Other Private Business Sectors			
1965-70	2.5	-1.4	4.0
1970-74	2.7	-2.1	5.0
1974-81	1.6	-0.4	2.0
1980-83	0.8	-1.0	1.8
Public Sector			
1965-70	6.1	6.1	0.0
1970-74	3.5	3.5	-0.1
1974-81	3.7	3.4	0.3
1980-83	1.8	1.6	0.2
Total Economy			
1965-70	3.8	-0.5	4.3
1970-74	3.1	-1.0	4.1
1974-81	1.1	-0.4	1.6
1980-83	0.7	0.3	0.4

Source: Swedish national accounts.

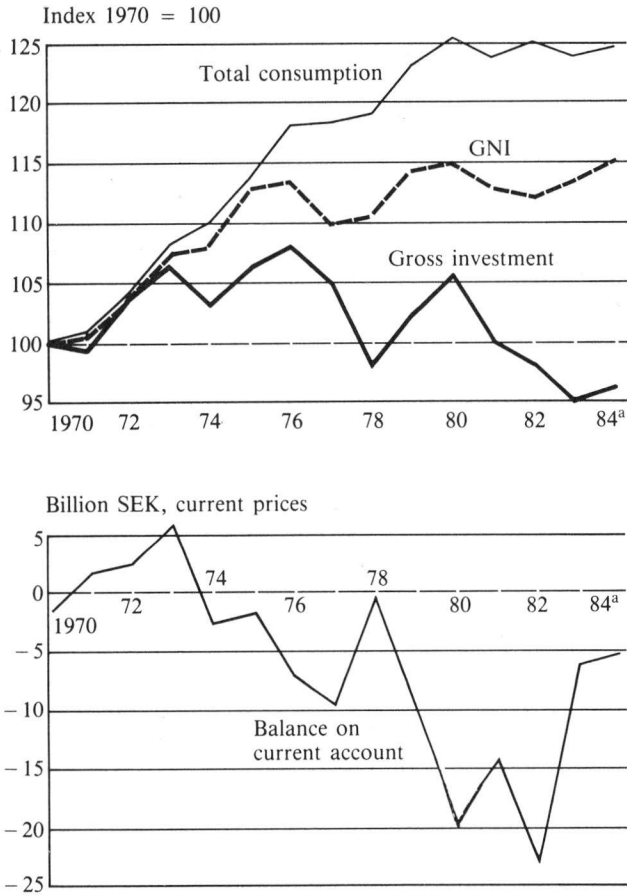
a. In hours.

sectors, although this change was considerably less dramatic than in the industrial sector. In the public sector there was a decline in growth from the extremely high rate of 6.1 percent in the last half of the 1960s. However, growth and employment continued to increase by about 3.5 percent per year in this sector.

### *Use of Resources*

The weak growth of production in the 1970s was not accompanied by a parallel adjustment in domestic consumption. In the government's attempt to bridge over the international recession of the 1970s, growth of consumption continued, particularly public consumption which grew by 3.5 percent per year during the decade. Private consumption stagnated in the latter part of the decade. Still, a gap rose between the growth of total consumption and national income and this gap is still not closed. Figure 4-1 shows the development of total consumption compared with that of gross national income (GNI) in the 1970s. This gap represents a fundamental lack of balance in the Swedish economy. It has arisen in conjunction with decreased investments and a growing deficit on current account.

**FIGURE 4-1 GNI, Total Consumption and Investment (1980 Prices) and Balance on Current Account (Current Prices)**



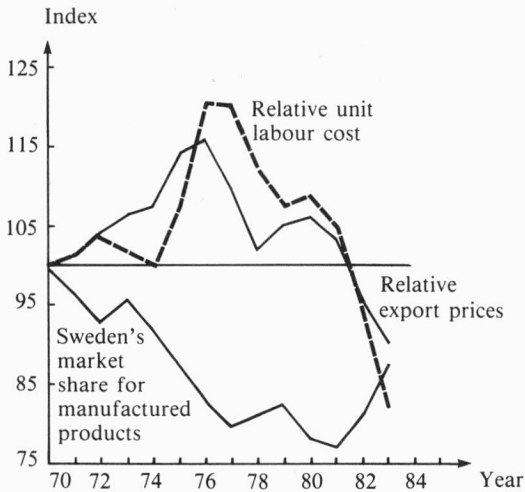
Source: Swedish national accounts.

a. Forecast.

### ***Competitive Position and Export Performance***

Sweden is a small open economy. Therefore, the competitive position of Swedish industry and the export performance of industry is of great importance for the whole economy. In the mid-seventies the competitive position of Swedish industry declined dramatically because of high increases in wage costs accompanied by an effective appreciation of the Swedish krona. The cost position was later normalized by a combination of successive devaluations and a more modest development of wage costs.

**FIGURE 4-2 Cost Competitiveness and Sweden's Share of OECD Market, 1970-83**



Source: Swedish Employers Confederation and IMF.

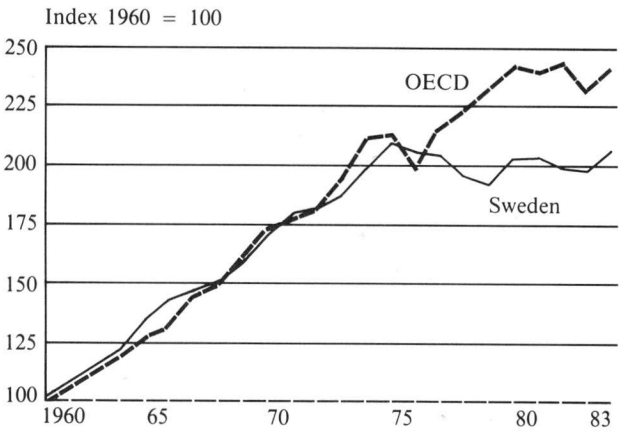
The development of cost competitiveness during the 1970s is given in Figure 4-2, which also shows the development of Sweden's share of OECD market for manufactured products. While the increase in Sweden's relative cost position in the mid-seventies caused a sharp fall in market shares, the normalization of cost position later on did not bring about a symmetrical increase in market shares. Instead, there seemed to be a declining trend in Swedish shares on export markets. In Figure 4-2 this decline amounts to 15 percent from 1970 to 1981. If the whole world market is included, the total fall amounts to 20 percent. This development coincides with a poorer performance for Swedish industry than the OECD average. Figure 4-3 gives an index for Swedish industrial production during the period 1970-82 compared with an index of average OECD industrial production during the same period.

### ***Inflation and Unemployment***

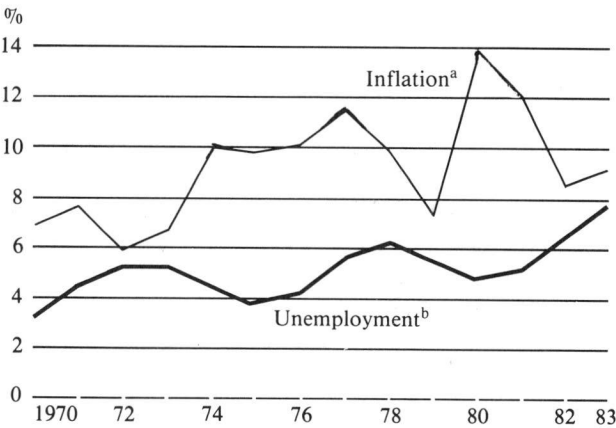
As in most countries, inflation in Sweden has shown an upward trend during the 1970s. There has been a strongly cyclical pattern in inflation performance, however, with each peak and bottom respectively higher than its predecessor. The last inflationary peak, in 1980, was at 14 percent. Swedish inflation during the 1970s stayed fairly close to the OECD average. At present, however, there is a discrepancy: while OECD inflation average is moving downward, inflation in Sweden is increasing.

Unemployment has been following a similar pattern of deterioration

**FIGURE 4-3 Industrial Production in Sweden and in OECD, 1960-83**



**FIGURE 4-4 Unemployment and Inflation, 1970-83**



Source: National Central Bureau of Statistics and National Labour Market Board.

Notes: a. CPI.

b. Openly unemployed and persons subject to labour market support.

during the 1970s. In this case, however, the Swedish performance is far better than the OECD average. While this average is around 10 percent, the Swedish figure on open unemployment is about 3.5 percent. It should be noted that the number of persons in relief work and other kinds of labour market measures is quite high, at present accounting for another 4 percent of the labour force. An overview of inflation and unemployment in Sweden since 1970 is given in Figure 4-4.

## Decline of the Swedish Model

In hindsight, the Swedish economy performed very well in the 1950s and 1960s. Developments were backed up by a strong growth in investments and rapid structural changes, and Sweden took advantage of these opportunities for international specialization.

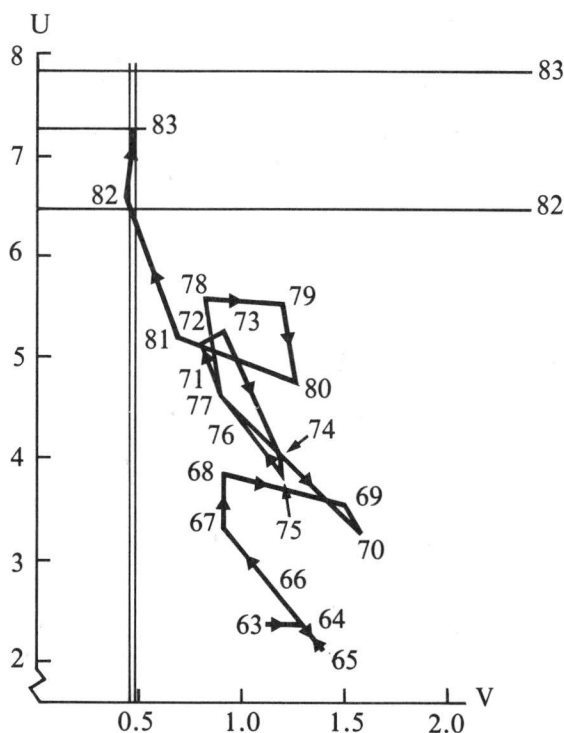
An important explanation for the rapid rise in productivity was Sweden's high potential for structural adjustment in the years after the war.<sup>1</sup> Sweden's economic policy and labour market policy were also favourable for development, and there was considerable consensus between unions, employers and government on the basic strategy. The late fifties and most of the sixties can be described as the "golden age of the Swedish model."

At this time the blue-collar worker union, LO, had, in conjunction with the Swedish Employers' Confederation (SAF), complete domination over the market. The LO recognized the importance of both international cost competitiveness and of a positive attitude to mobility and change. An important principle of labour union wage policy, however, was the egalitarian, solidaristic wage policy,<sup>2</sup> the aim of which was equal pay for equal work irrespective of firm, sector or region.

The Swedish wage formulation process is closely associated with the Scandinavian inflation model, or the so-called EFO model.<sup>3</sup> Wage increases — or the room for wage increases — in the exposed sectors are given by productivity growth and internationally determined price increases. Wages in the sheltered sectors are related to wages in the wage-leading exposed part of the economy, and prices are determined by a mark-up on unit labour costs. This implies, under certain assumptions, an unchanged functional income distribution. Among a number of specific assumptions underlying the model, a sufficient level of profits to generate high levels of investment is perhaps the most crucial. Moreover, in order to preserve full employment and a balanced external position the model, in conjunction with the solidaristic wage policy, assumes a high degree of mobility of both capital and labour and a high rate of expansion in the high productivity exposed sectors.<sup>4</sup>

A number of events in the early seventies had made the framework less suitable. Wage developments in 1974–76 deviated from the wage paths given by the model, as the settlement did not anticipate the turnaround in international prices and the public sector tended to become a wage leader. Reduced labour mobility and rigidities reinforced by defensive industrial policies suggest that the model has become obsolete as a guideline for wage policy. Finally, the international recession and subsequent slow growth brought an end to the rapid expansion of output and productivity gains in the exposed sectors, thus limiting the ability of the private sector to absorb employees released from uncompetitive firms. Even if the model has become obsolete, the solidaristic

**FIGURE 4-5 Registered Unemployment and Persons Covered by Labour Market Policy (U) in relation to Number of Vacancies (V), both as Percentage of Labour Force (annual average)**



*Source:* SCB's labour force surveys and AMS' labour statistics.

wage policy has been pursued through the 1970s. This process has made the wage structure increasingly less adapted to the structure of the rest of the economy.

There are several visible results of this condition. Business firms find it difficult to recruit skilled workers, even in conditions of excessive slack in the economy. An increasing number of subsidies are going to support weak parts of Swedish industry. When the wage structure is rigid and there is resistance to closing firms, then subsidies become a political necessity. Much evidence can be found for a continuous decrease of flexibility in the labour market. A clear indication that is relatively independent of economic activity is given in Figure 4-5, where the number of persons who are unemployed or covered by measures of labour market policy is related to the total number of vacancies in the labour market. This shows that a given number of vacancies has come to

be associated with a larger number of persons who are available for work but do not have a job. This imbalance is an indication that the labour market, regardless of the demand situation, has become less able to match labour supply with demand.

## **Adjustment to a Changing Environment**

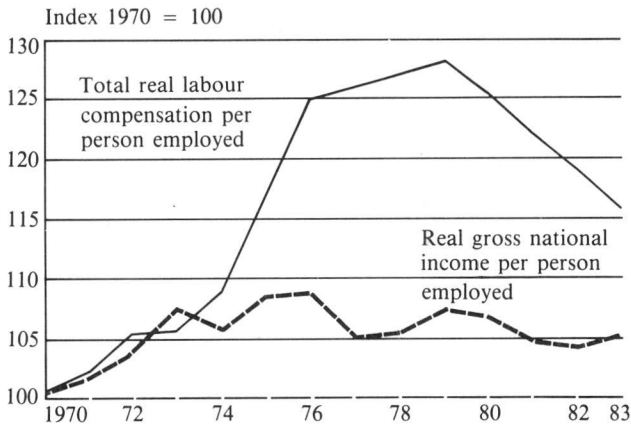
Many economic problems during the recession of the 1970s have been common to all industrialized countries. From Sweden's viewpoint the problems have been heightened by the weak, irregular development in other industrial countries. The new competitive conditions in mining, the steel industry, and shipbuilding were also of particular importance for Sweden. The price increase for oil created a dilemma for stabilization policy in industrial countries via the sharply impaired terms of trade. Together with other changes in the world economy, the price shifts also necessitated a structural adjustment of the industrial economies.

It is becoming clear that an inability to make this adjustment is a significant explanation for the persistence of the problems in these countries. A brief recapitulation of this aspect of Swedish development in the 1970s is therefore in order. Some of the important respects in which international development in the 1970s has called for structural adjustment in industrial countries, Sweden included, are as follows:<sup>5</sup>

- The deterioration in terms of trade necessitates a relative downward adjustment of real earnings and total domestic consumption.
- A return of external balance in the longer run required a shift in production from sheltered to exposed sectors.
- Achieving this shift in a market economy would suppose a shift in relative earnings and relative profitability in favour of the exposed sector; in other words, profits and earnings in industry would have to rise relative to other sectors.
- The changes in relative prices also made it necessary to restructure industry; the impaired conditions for shipbuilding and the basic metal industries have already been noted but the need for structural change was not confined to these sectors.
- The new relative prices mean that a considerable part of the existing capital stock is economically obsolete; extensive new investments are needed to maintain the capacity for growth.
- With the higher prices for oil and energy, the relative utilization of energy and oil would have to be reduced.
- The points listed above refer to changes that are needed chiefly as a consequence of increased prices for oil and energy together with new conditions for competition. It should not be forgotten, however, that structural change is an integral part of economic development, not



**FIGURE 4-6 Real Wage Gap**



Source: Swedish national accounts.

least via the introduction of new technology. With the additional factors listed above, there are many indications that development in the 1970s involved an accentuated need for economic flexibility.

Taking the 1970s as a whole, it can be said that the Swedish economy was not particularly successful in meeting these demands for structural change. There was in fact only one respect in which development moved in the right direction — the relative input of energy in general and oil in particular has decreased. In all the other respects, adjustment has on the whole been contrary to what was desired.

### ***The Real Wage Gap***

After OPEC I, real earnings in Sweden, instead of falling, rose very strongly and then levelled off on a high level relative to productivity. This is illustrated in Figure 4-6, which shows the “real wage gap” in the Swedish economy.

The same lack of adjustment is evident from Figure 4-1, where total consumption is related to gross national income. Both figures reflect the combined effects of the excessive wage-cost increases and the expansionary bridging policy pursued in the mid-seventies. The effect was that the terms of trade loss from the oil price increase fell on profits and on the balance of payments.<sup>6</sup> This contributed to an extremely depressed profit situation for Swedish industry in the late seventies. Figure 4-9 shows that the average rate of return on real capital in industry after 1975 has been far below the bond yield. The relevant comparison is of course between the long-term bond yield and the anticipated rate of return on

investment. However, a wide negative gap for a long period between historical averages of the two variables will most probably create the expectation that this situation will persist. Therefore, there has not since the mid-seventies been any great incentive to invest in net new real capital in Swedish industry. From this perspective the stagnation and decline of capacity in Swedish industry after 1975 seems quite natural.

### *Subsidies and Sectoral Adjustment*

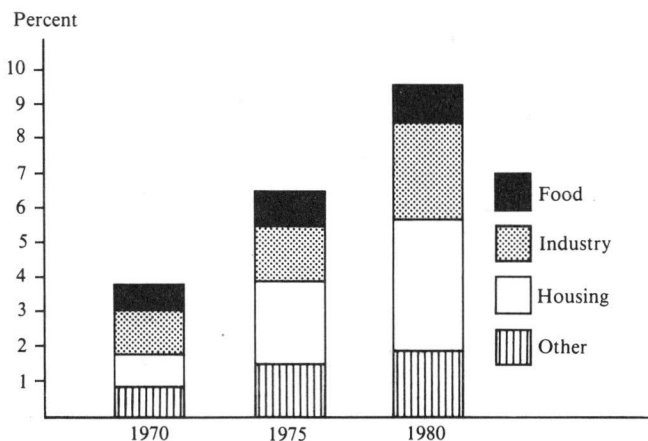
While economic policy on the macro level initially worked against the desirable adjustment, the same is true in sectoral adjustment. During the 1970s subsidies to the business sector increased dramatically. There was increasing subsidization of certain parts of the sheltered sector, and subsidies also rose strongly to the industrial sector, chiefly to the branches that should have been contracted — for example, shipbuilding, basic metal industries and textiles.

Figure 4-7 summarizes development in the decade 1970–80 for direct transfers which have gone, in one form or another, to various branches of the Swedish economy.<sup>7</sup> The agriculture and food sector received 1.2 billion kronor in transfers in 1970; in 1980 the figure had risen to 5.3 billion or around 1 percent of GDP. The housing sector received the equivalent of not quite 1 percent of GDP in 1970, while in 1980 the amount was equivalent to almost 4 percent. In industry, subsidies and support in 1980 totalled 2.8 percent of GDP, while the figure in 1970 had been 1.3 percent. In addition, several activities that belonged to the sheltered part of the market sector in the early 1970s and were subsidized to a certain extent have been incorporated in the public sector and are accordingly subsidized in full. Furthermore, it is estimated that,<sup>8</sup> at the end of the 1970s, border protection for the agricultural sector cost the Swedish economy 8.4 billion kronor,<sup>9</sup> — that is, 1.6 percent of GDP in 1980 — although it is difficult to tell whether this represents an increase from 1970. For the textile industry, corresponding calculations put the cost at the end of the 1970s at 1.6 percent of GDP. The burden on other sectors, including industry, can be illustrated with the aid of Figure 4-7. It will be seen that the subsidies totalled 3.7 percent of GDP in 1970 and 9.6 percent in 1980, a difference that for 1980 is equivalent to more than 30 billion kronor. This is more than half of the revenue from payroll charges or almost 90 percent of the revenue from value-added tax (VAT).

The effects of the relative discrimination against industry are visible enough.<sup>10</sup> Considering the magnitude of the subsidies to other sectors, this imbalance must be counted as an important explanatory factor behind the very poor performance of Swedish industry during the 1970s.

There have also been other sources for decreased flexibility. We have already pointed to developments in the labour market. As we shall see in the next section on the growth of public expenditure, the development

**FIGURE 4-7 Public Subsidies to the Business Sector  
as a Percentage of GDP**



Source: Sweden, Ministry of Economic Affairs, Medium-Term Survey, *Growth or Stagnation* (Stockholm, 1982).

on the public sector side seems also to have worked in the direction of a decreased flexibility. The oil shock per se may have been less of a disturbance to the Swedish economy than the negative internal adjustment process brought about by the economic policy response and the wage response to the oil shock. The cumulative effect of OPEC I and OPEC II on Swedish terms of trade could be estimated to a loss amounting to 3 percent of GDP. This is a significant amount. However, in a time-span of ten years a strong and flexible economy should have the capacity to adjust to a disturbance of this order of magnitude. Of the seven points of adjustment listed above, all of them are in conformity with a market response to the oil shocks. A government policy of non-intervention and non-accommodation would therefore probably have brought about the necessary adjustment at a cost that would have been much less than those inflicted by the policies actually pursued.

## **Growth of Public Expenditure**

The Swedish economy has failed to adjust to the demands imposed by international developments; in fact it has moved in the opposite direction in almost every respect. The resultant difficulties have underscored the problems that were created by the rapid growth of public consumption and public expenditure in Sweden in the 1970s. There is reason to stress that the growth of public expenditure is part of a fundamental structural change in the Swedish economy, whereby the public sector has come to play an increasing part in every sector of the economy.

**TABLE 4-2 Number of Persons in Public Production and Receiving Public Insurance and the Number of Person-Years Worked in Sweden (1000s)**

	1965	1970	1975	1980
1 Employed in Public Sector <sup>a</sup>	572	854	893	1,042
2 Old-Age Pensioners	827	947	1,062	1,362
3 Unemployed	44	59	68	84
4 Labour Market Measures	30	66	86	122
5 Disablement Pensioners	161	188	289	281
6 Registered Sick <sup>b</sup>	203	262	288	274
7 Parental Leave <sup>c</sup>	26	28	46	75
8 Total in Employment	4,207	4,090	3,950	3,879
9 Employed in Business Sector <sup>a</sup>	3,634	3,335	3,056	2,814
10 Total 1-7	1,863	2,404	2,732	3,240
11 Total 1-7/8	0.44	0.59	0.69	0.84
12 Total 1-7/9	0.51	0.72	0.89	1.15

Source: Sweden, Ministry of Economic Affairs, Medium-Term Survey, *Growth or Stagnation* (Stockholm, 1982).

a. Workdays in hours converted into person-years.

b. Average number per day receiving sick benefit.

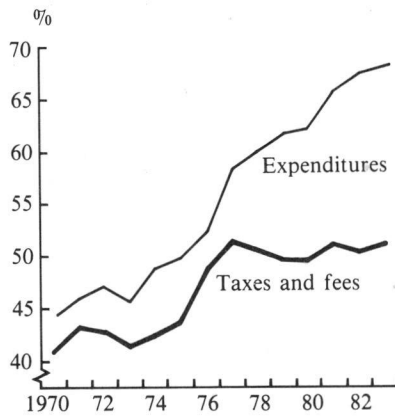
c. Average number receiving parental benefit (for 1965 and 1970, number of gainfully employed women receiving maternity benefit).

This situation has been illustrated earlier in this article in the figures on the rapid growth of subsidies to various sectors of the economy. Another illustration, presented in Table 4-2, is provided by the marked increase since 1965 in the number of persons who are directly dependent on the public sector in one way or another. The table shows the number of persons who, annually, are provided for mainly by the public sector via transfers (categories 2-7), as well as the labour input in man-years in the public sector (category 1). The total number of man-years in the private sector is also given for comparison (category 9). In relation to the total number of man-years, the number of persons provided for by the public sector almost doubled between 1965 and 1980.

Moreover, since 1965 there has been a continual improvement in the relative standard accorded to those covered by public sector insurance. Quantitatively, the most substantial improvement concerns pensions, with a marked increase in the real value of basic pensions and a growing number of persons who qualify for a national supplementary pension. In 1981 there were 750,000 persons receiving national supplementary pensions. When this system is fully operative around 1990, there will be more than 1.3 million.

Table 4-2 covers developments in the market sector and the public sector. To capture the structural change behind these figures and their inherent problems we should also include production in the household sector and in the unregistered market sector (the "black" sector). Demographic developments have gone in the same direction as other factors behind the public sector's rapid growth. The build-up of the pension

**FIGURE 4-8 Public Sector Share of GDP in Sweden**



*Source:* Swedish national budget, 1984.

*Note:* Forecast.

system and public responsibility for care of the sick and aged have been accompanied by a strong increase in the number of pensioners as a proportion of the total population as well as in absolute terms.

The process described here is common to all industrialized countries. What is unique to Sweden, however, is that such a large part of the growing service sector has also become part of the public sector. The resulting expenditure and tax pattern during the 1970s is given in Figure 4-8. Public expenditure as a share of GDP increased from 45 percent in 1970 to 70 percent in 1982.

To a much larger extent than in other countries, employment in Sweden has been dependent on public sector growth. This is clear from Table 4-3, which shows private and public sector employment and their contribution to total employment in the EEC, Japan, and the United States. Public sector employment has grown most rapidly in Sweden while at the same time private employment has declined most rapidly. During most of the 1970s there was an average increase in public expenditure of about 6 percent a year in real terms. Since 1979 this growth rate has slowed down significantly, a result of a virtual cessation of new spending programs and, to some extent, of an effort to cut down on existing programs. Still, the expenditure growth since 1979 has been around 3 to 4 percent a year. A growth rate of this magnitude is a result of pure automaticity in public spending. The driving forces here are the development of the national pension funds system, local government spending patterns, and interest payments on the rapidly growing government debt.

**TABLE 4-3 Average Annual Change of Employment, 1970-80**

	EEC	U.S.	Japan	Sweden
Private Employment	-0.19	+2.42	+0.75	-0.57
Government Employment	+2.39	+1.43	+2.18	+4.89
Total Employment	+0.20	+2.25	+0.84	+0.79
Contribution to Total Employment from:				
Private Sector	-0.16	+2.02	+0.71	-0.45
Public Sector	+0.36	+0.27	+0.14	+1.19

*Source:* U.S. Department of Labor; EEC; OECD; Swedish Central Bureau of Statistics.

The tax ratio has increased from 40 percent in 1970 to a little more than 50 percent in 1982. There has been a significant increase in the tax rate, but this has not been sufficient to finance the dramatic increase in public expenditure. Instead, the public sector deficit has been growing at a fast rate. This increase reflects the fact that fiscal policy in certain years was unduly expansive in that it generated an inflationary degree of capacity utilization. Above all, however, it reflects the economy's lack of structural adjustment. Fiscal policy no longer acts as a regulator of activity, but has been used in a persistent attempt to keep demand and employment up in an economy that is not adapted to prevailing relative prices and demand conditions.

The remainder of this section will be devoted to the question of the extent to which tax increases and deficit increases per se have been detrimental to economic growth and activity. With regard to taxation, marginal tax rates have to be considered as well as the average ratio. During the 1970s the progressivity of the Swedish tax system, in conjunction with the transfer system, was increased considerably. Therefore, marginal tax rates in general have grown faster than average tax rates. The evolution of marginal tax rates for ordinary income earners since 1950 is given in Table 4-4, where the figures indicate the total marginal effect. Consequently, they include all taxes in addition to the marginal effect of income dependent transfers. The table shows that the average total marginal effect for an average industrial worker has increased from about 68 percent in 1970 to nearly 82 percent in 1982. The same figures for an average white-collar worker are 67 percent in 1970 and 88 percent in 1982.

Marginal rates of this magnitude could certainly be expected to have a significant effect on economic behaviour. In recent years various attempts have been made to estimate the relation between total tax rates and production in the Swedish economy. Stuart (1981) and Feige and McGee (1982) all reach the conclusion that Sweden is on the downward sloping part of the Laffer curve. Stuart in his study gets the result that 75 percent of the decline of Swedish growth rates in the 1970s could be explained by increased taxes. Hansson and Stuart (1982) in their study

**TABLE 4-4A Total Marginal Tax Rate Effect at Different Income Levels (krona, 1980 prices)**

Year	Income Level			
	30,000	60,000	90,000	120,000
1955	37.9	45.3	49.4	52.0
1960	47.2	55.0	58.4	59.5
1970	64.0	68.3	67.0	68.1
1975	59.2	69.1	73.6	74.8
1980	61.8	70.2	80.8	85.5
1982	61.7	72.8	81.8	88.3

Source: I. Hansson, "Skattereformen och de totala Marginaleffekterna," *Ekonomisk Debatt* 1 (1982).

**TABLE 4-4B Average Wage (1980 prices)**

Year	Full-time Blue-collar Worker	Full-time White-collar Worker
1955	42,000	56,000
1960	44,510	62,064
1970	59,725	86,952
1975	65,109	100,884
1980	61,100	93,192
1982	59,650	86,520

Source: SAF.

based on average tax rates state that Sweden is still on the upward portion of the Laffer curve. Their conclusion, however, is that Sweden is on a segment where tax increases are sharply detrimental to output. In a study focussed solely on income taxation, Jakobsson and Norman (1981) have reached a similar result to Stuart and Feige and McGee.

Considering the level of Swedish tax rates, the results reported seem quite plausible. If they are correct, their policy implications are very strong. These conclusions must, however, be treated with caution. The studies are based on highly simplified models which were parameterized mostly on the basis of assumptions. Feige and McGee, however, show that even if an extreme degree of flexibility is assumed in the behavioural equations, their results still hold. Although further studies must be made of behavioural equations before firm conclusions can be drawn, we can assume that present Swedish tax rates are at best a severe growth restriction.

Turning to the effects of deficit financing, it might be a useful starting point to indicate how the development of the general budget deficit fits into the overall picture of savings and investment in Sweden during the 1970s and early 1980s. Table 4-5 shows that public sector financial savings moved from a surplus in 1970 of 4.5 percent to a deficit in 1982 of

**TABLE 4-5 Changes in Public Sector Saving and Capital Formation in the Swedish Economy**

	1970	1982	Differential
		(percent)	
Gross Fixed Private Investment	17	13	-4
Gross Public Investment	4.9	6.0	1.1
Inventory Investment	3.3	-1.0	-4.3
Current Account	-0.5	-3.7	-3.2
Total Saving	24.9	14.3	-10.6
Gross Private Saving	15.5	14.9	-0.6
Gross Public Saving	9.4	-0.6	-10.0
Public Sector Surplus	4.5	-6.6	-11.1

*Source:* Swedish national budget.

6.6 percent as a share of GDP. The total change in public sector surplus during the period is thus 11 percentage units of GDP. Public sector investments have increased somewhat as a share of GDP, and the fall in gross public saving is limited to 10 percentage units of GDP. During the same period, gross private savings are virtually unchanged. Thus, total savings in the economy have fallen by roughly the same amount as gross public savings. The counterpart to the fall in public savings is given by a fall in gross fixed private investment by 4 percentage units of GDP, by a decrease in inventory investments by another 4 percent of GDP, and a decline of the current account position by 3.2 percent of GDP.

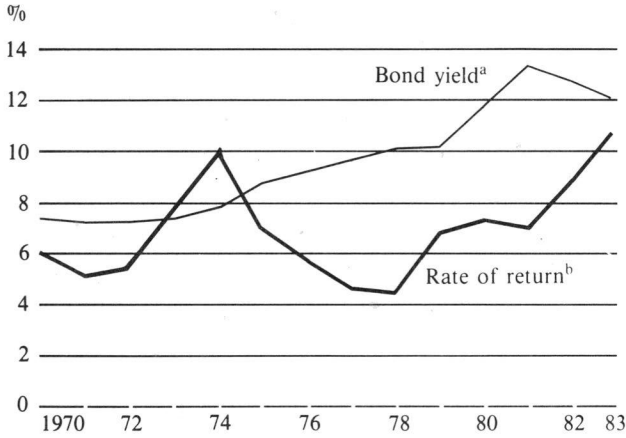
These figures seem to indicate a strong crowding-out process during the 1970s. There have been few signs of such a process, however, in the credit and capital markets. Indeed, real interest rates in Sweden have been kept at a remarkably low level. One reason for the smoothness of this process might be regulations in credit and capital markets. One of the aims of these regulations has been to keep interest rates down. Part of the rationing system in the Swedish capital market has been that institutions — for example, pension funds and insurance companies — have been obliged to buy bonds with lower than market rates, particularly to finance housing investment. With falling housing investment in the 1970s, the obligation to buy housing bonds has been shifted to an obligation to buy government bonds for deficit financing.

Another reason for the apparent smoothness of the shifting process has been the low rates of return investment in the business sector. There has been little need for high interest rates to hold back credit demand for business investment. This point is illustrated in Figure 4-9, which shows the development from 1970 of the rate of return on real investment and the rate of return on long-term government bonds.

It has already been shown how excessive increases of wage costs and public policies of subsidizing ailing sectors have created a crowding-out of production and investment in the private sector. In particular, this



**FIGURE 4-9 Rate and Return in Industry and Bond Yield**



Source: Swedish Central Bureau of Statistics and Central Bank.

Notes: a. Longterm.

b. On total capital before tax.

process has undermined the competitive position of Swedish industry and has contributed to the balance-of-payments problem in the Swedish economy. The fast growth of the budget deficit seems to be a result of the same process rather than a cause of it. An increase in investment activity and capital formation has to be an integral part of a return to equilibrium for the Swedish economy. If this process ever gets started we have to expect increasing difficulties in financing the deficit. As soon as the recovery process gets under way, crowding-out in the credit market will become a major problem.

### **Present Policies and Prospects**

During the last few years there has been a growing awareness in Swedish society that the economy is running into a severe disequilibrium. Attempts have accordingly been made to change the general trends that have been described in this paper. The devaluation in 1977 and rather modest wage increases have worked toward restoring the competitive position of Swedish industry.

In 1981 the former non-socialist government embarked on a new policy toward public spending. By reducing public programs it would be possible to counteract the automatic increase in public expenditure. During 1981 and 1982 a couple of "savings plans" for the public sector were implemented. The present Social Democratic government that came into office in October 1982 reversed this policy somewhat. However, this

government has a similarly cautious approach to public spending. Consequently, growth in public spending in 1984 will approach zero.

The most important area of reorientation is in the area of industrial subsidies. Since very few new commitments are made, the net result has been a rapid phasing out of industrial subsidies. The devaluations, in combination with a cyclical upswing, have created a climate in the last couple of years where there is very little demand for new subsidies. Therefore, the new restrictive policy on industrial subsidies has so far not been put to a severe test. The general principles for public sector spending have not been changed. Therefore, cuts in public expenditure have to take place within the framework of the existing structure. Moreover, the impact of automaticity on present programs is still very strong.

In 1982 two of the non-socialist parties, together with the Social Democrats, decided upon a planned decrease of marginal tax rates in the income tax. Under favourable assumptions about developments of other taxes, this reform would, according to Hansson (1983), take total marginal tax rates as reported in Table 4-5 back to the level of 1975. Even this modest change will, however, be diminished by some changes in the tax schedule that have been implemented.

In 1981 there was a devaluation of the Swedish krona by 10 percent. The new Social Democratic government devalued by a further 16 percent in 1982. These devaluations have improved the competitive position of Swedish industry considerably, as well as the profit situation. The devaluations also work toward closing the real wage gap in the Swedish economy. These improvements have made Swedish industry relatively well placed to take advantage of the international recovery. Swedish industry is now regaining shares of export markets, and industrial growth in the upswing is markedly faster than the European average.

In order to return to an equilibrium position with low inflation and full employment, it is necessary that the present improvement in capacity utilization be followed by capacity growth and a restructuring of the economy in the direction that is indicated by the price signals of the devaluation. For this process to take place, the following conditions will have to be met:

- the supply side should be flexible enough to avoid inflationary bottlenecks; and
- the relative cost and profits situation achieved should be maintained for a considerable time.

Concerning the first condition, most of the problems connected with a high public sector expenditure remain. On the positive side, there has been a phasing out of industrial subsidies. The inflexibilities in the economy that are inflicted by the high marginal tax rates will, however, remain a restriction for growth and adjustment. The growth of the public

sector deficit has been halted but the deficit is still large enough to cause problems of financing. These problems will become acute when or if the broad-based growth of investment that is an integral part of a self-sustained growth path takes place.

With regard to wage structure, the devaluations could be expected to have increased the gap between market shadow wages on the one hand and actual wages on the other. The export-led upswing substantially increases the risks for inflation that always goes with a devaluation.

This article has pointed out major areas of disequilibrium in the Swedish economy. It has been shown that many of the problems in the economy are the result of economic policies. What emerges from the analysis is, indeed, a gloomy picture. There are, however, areas of strength in the economy. One such area is an industrial base that, in spite of the stagnation in recent years, is still strong. Another area of strength is the human capital base with a labour force that is relatively well skilled. The future of the Swedish economy will therefore depend on the course of economic policy in a broad sense.

If the course of policy is basically unchanged, the deterioration of the economy will in all probability continue. If, however, there is a major policy shift toward adjustment, the prospects for the future should still be favourable. Whether such a shift will take place is an open question. Recently, there has been an increasing awareness of the seriousness of the disequilibrium in the Swedish economy. The kind of measures needed to get the economy on the right track in most cases run counter to postwar political trends in Sweden. Policy actions toward adjustment have by and large been confined to decreasing the real wage rate by devaluations. Obviously there is also a need for internal measures of adjustment. One of the aims of this paper has been to point out the kind of measures that are needed.

## *Notes*

This paper, an updated and abridged version of one given at the seminar "World Economic Growth Problems" in Mexico City, April 1983, was presented at the symposium "Lessons from Recent European and Australian Macroeconomic Experience" organized by the Macroeconomic Research Section of the Royal Commission on the Economic Union and Development Prospects for Canada, Ottawa, June 8-9, 1984.

1. For example, Wissén (1982) and Lundberg (1972). For a quantitative study of the contribution of structural change to productivity see Carlsson (1979).
2. For a discussion of this model see Robinson (1974). Faxén (1982) gives an account of wage dispersion in some European countries including Sweden.
3. Edgren, Faxén, and Odhner (1973).
4. An analysis of Swedish wage formation in a macroeconomic context is given in Lundberg (1972).
5. The discussion in this section follows quite closely the government Medium-Term Survey, 1982, of the Swedish economy. See Sweden (1982).
6. Since this paper deals mainly with structural problems in the Swedish economy, stabilization policy is not treated. It is obvious, however, that stabilization policy in the

1970s has been significantly less well adapted to the economic environment than in the preceding postwar decades. Probably this is part of the explanation for the deterioration of performance in the Swedish economy in the 1970s. For a review of Swedish stabilization policy in the early postwar period see Lindbeck (1968). Schwartz (1980) covers postwar structural developments as well as some of the problems of stabilization policy in the 1970s. A brief review of Swedish stabilization policy in the 1970s is given in Jakobsson and Herin (1981). Myhrman and Söderström (1982) gives a fairly detailed discussion of postwar stabilization policy.

7. For documentation of this diagram see Sweden (1982).
8. The area of industrial subsidies has recently been studied extensively by different authors. See, for example, Hamilton (1983) and Lundgren and Ståhl (1981). An overview of Swedish industrial subsidies in the 1970s is given in the Government Commission Industristödsutredningen (1981).
9. SNS (1981).
10. See, for example, Figure 4-3.

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## Summary of Discussion on Papers Relating to the Netherlands and Sweden

GORDON SPARKS

With reference to Mr. Ellman's remarks, Mr. Macdonald commented that the problems of the welfare state and policy regarding natural gas exports were of particular interest to Canada. He then asked about Dutch policy regarding the latter. Mr. Ellman replied that the natural gas industry was not viewed as an important macro problem because of the low labour requirements. Policy was concerned mainly with government revenue requirements and the maximization of returns.

Mr. Allsopp noted that the Netherlands economy was characterized by low investment but a strong balance of payments. He asked why, under these circumstances, the government did not attempt to cut saving rather than the budget deficit. Mr. Ellman said that the government's aim was to stimulate investment and it did not want to decrease saving.

Mr. McCallum noted that Swedish performance with respect to inflation and unemployment has been much better than Canada's. He asked why unemployment experience had been different in Sweden as compared with the Netherlands. Mr. Jakobsson replied that, in comparison with other European countries, employment in the Swedish market sector had decreased more quickly than average but there had been a rapid increase in public sector employment. He expressed concern that in the future good employment performance could not be sustained since budgetary problems would force a reduction in the growth rate of the public sector.

Mr. Fortin raised the problem of the effect of macro shocks on international competitiveness. He suggested that it was important to understand the interactions between wages and the exchange rate. Mr. Jakobsson said that Swedish experience suggested that it was possible to adjust real

wages downward through devaluation, although Austria had done better without devaluation.

Mr. Crow suggested that the effect of a devaluation on the price level could lead to a vicious circle. Mr. Ellman allowed that devaluation would not be feasible in an economy with indexation. He said that it was now an option in the Netherlands since indexation had been abolished.

Ms. Wallace asked about the role of unions in Sweden. Mr. Jakobsson replied that the unions occupied a strong position and that this placed restrictions on policy options.

Mr. Barber asked if it were possible to have a devaluation without a reduction in real wages. Mr. Jakobsson argued that such a reduction would be necessary unless there was an increase in productivity.

## PART III



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# Austria and Switzerland





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## Recent Macroeconomic Experience in Austria

HELMUT FRISCH

### Scenario and Targets

Austria is a small open economy which is connected to the world economy through its "exposed sector." The exposed sector (E-sector) comprises export industries as well as those firms which produce for the domestic market but are open to international competition. Output in the E-sector accounts for approximately one-third of the value added in the Austrian economy, whereas two-thirds are produced in the "sheltered sector" (S-sector). The price index of the E-sector closely follows international price developments. Similarly, the Austrian economy receives strong impulses from the international business cycle. The graph in Figure 5-1 shows that the cyclical phases of the Austrian economy were almost identical with those of the international business cycle during the period 1965-83.

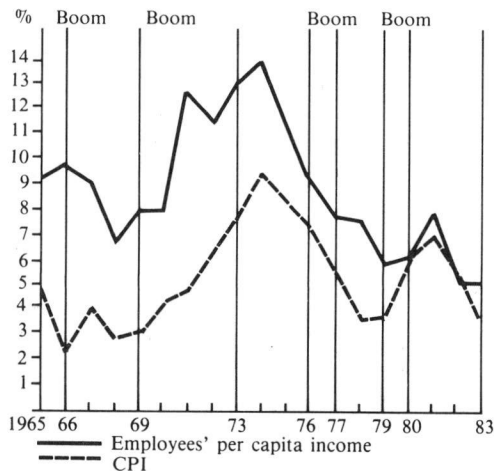
The Austrian cycle is predominantly export induced. Every upswing begins with an increase in foreign demand for domestic exports and occurs regularly at the middle of the recessionary phase (Figure 5-1). The cycle continues with a change in the stock of inventories in the same direction. In the later phase of the business cycle, investment in equipment and private consumption increases. At the end of the boom and at the beginning of the recession the inflation rate as well as the rate of growth of money wages reach their highest level (Figure 5-2).

The Austrian boom at the beginning of the seventies was interrupted unexpectedly by the sharp world recession of 1975. Austrian economic policy tried to dampen the shortfall in private domestic and foreign demand to a great extent by means of expansive fiscal policy. While the budget deficit was 1.4 percent of GNP in 1974, it increased to 4.4 percent

**FIGURE 5-1 Real Exports and Total Investment (% change from previous year) and Change in Real Inventories (as % of real GDP), 1965-83**



**FIGURE 5-2 Employees' Per Capita Income and Consumer Price Index (CPI), 1965-80 (% change from previous year)**



**TABLE 5-1 Consumer Price Rises in Austria and all OECD Countries, 1971–80**

	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983
	(percent)										
Austria	7.6	9.5	8.4	7.3	5.5	3.6	3.7	6.4	6.8	5.4	3.3
OECD											
Europe	8.6	13.4	13.1	10.8	10.9	9.1	10.8	13.0	11.4	11.0	7.2

in 1975 and subsequently remained at about the same level. The quick and strong recovery in the following years was again interrupted by the second oil shock in 1981. This led to a severe recession and stagnation period and to the end of the Austrian full-employment “miracle.” During the 1975 recession the unemployment rate barely exceeded the 2 percent mark. However, unemployment began to climb to 4.5 percent in 1983. Also during this period fiscal policy was reversed such that the federal budget clearly was restrictive in the recession years of 1981–83.

Table 5-1 shows that the inflation rate in Austria was considerably below the OECD average in the decade 1973–83, a favourable result of the attempt by the Austrian policy makers to dampen the rate of inflation. This was accomplished, on the one hand, by linking the exchange rate of the schilling to the strong occurrences of the main trading partners (especially the Deutsche Mark). On the other hand, the dynamics of inflationary expectations were checked by incomes policy where a system of voluntary agreements between the social partners and the government was reached in order to prevent inflationary expectations from becoming part of the actual development of wages and profits.

The overriding objective of fiscal policy was to keep demand at a level compatible with full employment. As a consequence, domestic absorption of goods and services increased faster than domestic production and led to increasing deficits in the balance of payments. The “hard currency” policy reinforced these developments by making the price of imports attractive and discriminating against exports. The tax policy measures in 1977/78, together with a more restrictive monetary policy, brought about a sharp reduction in the deficit of the current balance. More recently, the severe recession of the Austrian economy has contributed to the reduction of the oil-related current account deficit.

## **Inflation and Unemployment**

The Scandinavian model provides an adequate basis for the study of Austrian stabilization policy in the 1970s. Of fundamental importance is the division of the economy into a sector producing “traded goods” (E-sector) and the “sheltered sector” (S-sector) producing “non-traded”

**TABLE 5-2 The Aukrust-EFO Equation, Austria, 1966–83**

		Actual Rate of Inflation
1966–74	$p = 4.53 + \frac{2}{3}(5.21 - 3.39) = 5.74$	4.9
1975–79	$p = 3.30 + \frac{2}{3}(4.28 - 1.41) = 5.21$	5.7
1980–83	$p = 4.7 + \frac{2}{3}(2.8 - 2.1) = 5.2$	5.48

goods (Aukrust, 1977). The crucial assumption of the Aukrust-EFO model is that the exposed sector acts as a wage leader. This implies that the average wage increase in the E-sector will be equal to the sum of the rate of international inflation  $p_w$  and the rate of growth of labour productivity in the E-sector  $\lambda_E$ . If wages  $w_E$  increase with  $w_E = p_w + \lambda_E$ , unit labour costs will increase at the same rate as prices and the relationship between profits and wages will remain constant with no drop in the international competitiveness of the economy.

It is easy to show that in the long run the domestic rate of inflation, according to the Scandinavian model, is derived as follows:

$$p = p_w + \alpha_S (\lambda_E - \lambda_S)$$

The inflation rate of a small open economy (given fixed exchange rates) is thus explained by the world rate of inflation  $p_w$  and by the difference in the rate growth of labour productivity between the “exposed” and “sheltered” sectors (this difference being weighted by  $\lambda_S$ , the share of the sheltered sector).

The Austrian example illustrates the Aukrust-EFO equation. For the period 1966–83 the relationships outlined in Table 5-2 hold. Combining the Aukrust equation and the Phillips relationship  $R$ ,

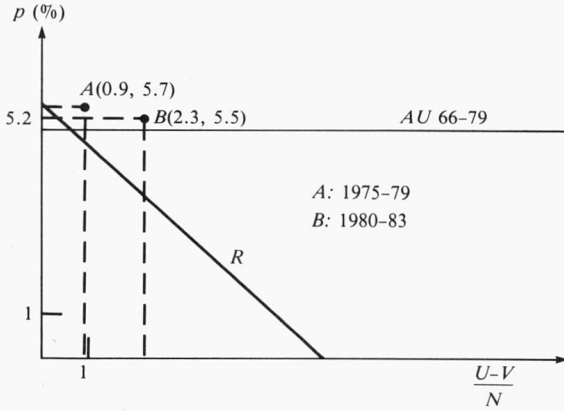
$$p = 4.91 + 0.473 p_w + 0.061 \lambda_E - 0.458 \lambda_S - 0.895 \left( \frac{U - V}{N} \right)$$

enables us to make the interpretation that the rate of inflation of a small open economy is determined exogenously through the Aukrust-EFO line (Figure 5-3). The Phillips Curve establishes the level of aggregate demand  $\frac{U - V}{N}$ , where  $V$  = the number of vacancies,  $U$  = the number

of persons unemployed, and  $N$ , the number of persons employed), which in turn generates the required rate of adjustment inflation. This reduced form equation follows from a “Phillips Curve-augmented” version of the Scandinavian model (Calmfors, 1977; Frisch, 1977, 1982).

Consider now the performance of the Austrian economy in the context of the Scandinavian model. During the period 1966–74 the domestic rate of inflation was on the Phillips Curve and on the average lay below

FIGURE 5-3 Phillips Curve and Aukrust Line



the “inflation margin.” The share of profit per unit of output and the international competitiveness of the Austrian economy increased. From 1975 to 1979 the rate of domestic inflation lay above but “near” the inflation margin. Therefore, the profit share in the E-sector had a tendency to decrease in this period and the competitiveness of the E-sector deteriorated. It is interesting to note that in the two years following the first oil shock the increase of wages was much larger than that justified by productivity growth and the international rate of inflation. It was a clear case of “overshooting.” Consequently, a severe loss in competitiveness relative to the main trading partners (West Germany, Switzerland) resulted and manifested itself in a deterioration of both the current balance and the profit margins in the E-sector. But this overshooting was subsequently corrected by wage moderation to improve the competitiveness and to restore the current balance equilibrium.

During the period 1980–83 the Phillips Curve shifted upward (not shown in Figure 5-3). The excess-demand variable  $\frac{U-V}{N}$  in the labour

market was on the average 2.4 percent in this period, explaining a domestic rate of inflation of 4.1 percent, while the actual rate of inflation was 5.5 percent. After the second oil shock an overshooting reaction of wages was prevented. In the period 1980–83 labour productivity  $\lambda_E$  rose by 2.8 percent and the price level in the E-sector by 4.7 percent. According to the Aukrust-EFO norm there was room for a wage increase of approximately 7.5 percent. However, the actual rise of employee’s per capita income amounted only to 6.2 percent (Table 5-3). Given the increase in consumer prices of 5.5 percent for this period, the real wage remained unchanged during this four-year period. The rise in wages below the Aukrust-line left room to restore profit margins in the exposed sector.

**TABLE 5-3 Average Annual Values (percent)**

	$p_w$	$\lambda_E$	$\lambda_S$	$\frac{U-V}{N}$	$p$
1965-79	4.09	4.9	2.7	+0.56	5.2
1980-83	4.7	2.8	2.1	2.37	5.5

It is interesting to compare these developments with the Swedish economy. In the wake of the first oil shock an overshooting in the development of wages occurred, resulting in a profound profitability crisis in the exposed sector. This wage development was not rectified by a subsequent period of subnormal wage increases. The two large devaluations of the Swedish krona in 1977 and 1981 were clearly intended to lower real wages and to raise the profit rates in the E-sector. In Austria, in contrast, the need for wage setting within the Aukrust margin to improve the competitiveness and restore the profitability of the E-sector had been accepted by the social partners, while the exchange rate was pegged to the Deutsche Mark and even revalued slightly (in real terms) during this period. In Sweden the more traditional instrument of devaluation was used, whereas in Austria incomes policy was implemented to reconcile real wages with the international competitiveness of the economy and to set conditions for bringing the economy out of the recession.

The price and wage development in Austria during the period 1966-83 can be interpreted as the result of incomes policy of the social partners (employers, trade unions and the government) in the context of the Scandinavian model. At the beginning of the 1970s the real sector of the Austrian economy benefited from the acceleration of the international inflation which was not fully transmitted into Austrian price and wage developments (the coefficient of transmission was less than 0.5). In the second period, especially after the second oil shock, incomes policy was again successfully implemented to bring wage developments in line with the Aukrust-EFO model.

For the entire period unemployment remained low in Austria and did not increase over 2 percent during the first oil shock period. After 1975 labour, which was laid off by the manufacturing sector, could be absorbed by many branches of the service sector (public as well as private, including the financial sector), the trade sector and tourism. With manpower policy instruments (retraining programs, incentives to increase labour mobility, etc.), labour hoarding by enterprises (in particular state-owned industries), and a reduction in the share of foreign workers, the registered unemployment could be maintained at a low level (at the price of low labour productivity) up to 1980. After the second oil shock the main channel for labour absorption was no longer effective since the pent-up demand for labour in the service sector was already

satiated. With the long-lasting recession at the beginning of the 1980s, financial pressures resulted in the shedding of hoarded labour even by the state-owned enterprises. Unemployment started to accelerate and climbed to 4.5 percent in 1983. This level, however, remained among the lowest of the industrial world.

## Monetary and Exchange-Rate Policy

In contrast to the (quasi-) monetarist practice in West Germany or Switzerland, the Austrian National Bank (ANB) did not pursue a quantitative money target. The principal objective of monetary policy was to maintain a fixed exchange rate against the Deutsche Mark. In effect the exchange rate was then fixed for a major part of foreign transactions; this required intervention in the exchange market and fluctuations in the monetary base. Owing to the dominating role of exchange-rate policy it was necessary to make monetary policy — at least as a medium-term objective — compatible with the exchange-rate target. For example, a system of credit rationing for commercial banks was implemented whereby the rate of credit expansion was not allowed to exceed a certain announced percentage rate a month. Under these circumstances the Mundell-Fleming model predicts that monetary policy would be completely ineffective. Every change in the domestic money supply which reduces the domestic interest rate below the international interest rate leads to a loss in international reserves, thereby generating a complete offsetting effect. The monetary authorities can only control the composition of the monetary base but not the money supply.

After the breakdown of the Bretton Woods system the ANB experimented with an “index-oriented” exchange-rate policy. From the middle of 1976 onward, however, the schilling was de facto pegged solely to the Deutsche Mark without fully following the erratic movements of this currency against the U.S. dollar. This linkage of the exchange rate to the Deutsche Mark has led to an effective appreciation of the schilling of about 44 percent in the period 1970–83. If the exchange rate appreciates exactly to the extent of the differential between the international rate of inflation  $p^*$  and the domestic rate of inflation  $p$ , there would be no “real” effects. In percentage rates we have  $\hat{w} = p^* - p$ , where  $\hat{w}$  represents the change in the exchange rate. If the rise in the effective (= nominal) exchange rate exceeds the inflation differential ( $\hat{w} > p^* - p$ ), a “real” revaluation takes place. If the effective exchange rate increases, but less than the domestic rate of inflation which falls short of the international rate ( $\hat{w} < p^* - p$ ), a “real” devaluation occurs (Seidel, 1978).

Tables 5-4 and 5-5 show that although the index of the effective exchange rate moved up throughout the period 1970–83, there was a real devaluation from 1978 to 1981. This decline was followed by a real appreciation of the schilling, in 1982 and 1983.

**TABLE 5-4 Development of the Effective and the Real Exchange Rate of the Austrian Schilling<sup>a</sup>**

	Effective Exchange Rate	Real Exchange Rate
1975	115.1	109.6
1976	119.5	113.1
1977	126.1	116.7
1978	127.2	115.5
1979	128.9	113.1
1980	132.7	112.5
1981	133.5	109.3
1982	138.4	110.2
1983	144.2	112

a. 1970 = 100.

**TABLE 5-5 Appreciation of the Effective Exchange Rate Compared with the Difference between Foreign and Domestic Rates of Inflation**

	$\hat{w}$ (change in the effective exchange rate)	$p^* - p$ (difference between the rates of inflation)
	(percent)	
1978	0.9	2.0
1979	1.3	3.4
1980	2.9	3.4
1981	0.6	3.4
1982	3.7	2.9
1983	4.2	2.6

The concrete form of the Austrian hard currency policy — namely, to keep the schilling in a relatively stable relation to the strong currencies of its main trading partners, especially the Deutsche Mark — seems to fit the stabilization policy in the framework of the Scandinavian model. Handler (1980) collected the following arguments in favour of the hard currency policy that may reflect the thinking of the Austrian policy makers:

- Pegging the schilling to the currency of an important trading partner that has a higher degree of price stability than Austria will result in “importing” stability.
- A small open economy is a price-taker in the world market. Prices in foreign currency are therefore assumed to be given. The “hard currency” policy will squeeze profits in the E-sector and motivate the firms to resist excessive wage claims of the trade unions. This will reduce inflationary pressure in the whole economy.
- The hard currency policy is likely to create a climate of monetary stability, thus breaking inflationary expectations and facilitating income policy.



- The profit squeeze in the E-sector as a result of the appreciating schilling will change the production structure and induce entrepreneurs to raise productivity. This in turn will improve the long-run competitive position of the E-sector.
- Empirical experience in other countries (the United Kingdom, Italy) shows that a "weak currency policy," that is, a purposely downward-floating of the exchange rate, very easily becomes a vicious circle. Devaluation produces greater inflation, which in turn induces offsetting movements in money wages; the higher wage costs lead to further devaluations; and so on.
- From econometric estimations about price elasticities it cannot be expected that a devaluation of the schilling would significantly reduce the share of imports or increase exports.

The dominant argument in the choice of a hard currency approach seems to be the "vicious-circle" argument. Following an exogenous depreciation, the economy will suffer a consecutive process of self-reinforcing inflation and depreciation, ending with a new equilibrium position where prices and exchange rates are higher than in an economy with flexible prices and a controlled money supply. The avoidance of this vicious circle seems to be a prerequisite to carrying out "incomes policy," one of the basic concepts of Austrian economic policy.

## **Fiscal Policy**

The dominating objective of Austrian stabilization policy was to keep the level of aggregate demand compatible with full employment. The Austrian policy makers tried to conduct an activist countercyclical fiscal policy. The question arises, however, whether the performance of Austrian fiscal policy can be labelled anticyclical. In order to determine whether the actual budget is expansive or restrictive, the concept of the full-employment budget (FEB) can be used (Table 5-6). The actual expenditure is thereby compared with projected tax revenues at the level of full-employment utilization (Guger, 1978).

In the recession of 1975 and 1976, with underutilized capacity the budget deficit unambiguously exhibited expansive effects. After the second oil shock the economy experienced an equally severe recession to that in 1975 but the FEB was generally procyclical. Why was there this difference?

In the period under consideration two new circumstances developed which constrained fiscal policy formulation:

- Owing to expansive fiscal policy, domestic absorption rose too fast, generating a significant deficit in the current balance. In other words, the fiscal expenditure multiplier was increasingly dissipated through the balance-of-payments deficit. This result was mainly due to stronger economic growth than occurred abroad.

**TABLE 5-6 Full Employment Budget**

	<b>GNP Gap in % of Potential Output</b>	<b>FEB in % of Potential Output</b>
1973	-1.5	+0.1
1974	-3.2	+0.2
1975	-4.1	-2.4
1976	-3.3	-2.3
1977	-1.9	-2.0
1978	-4.3	-1.7
1979	-2.2	-1.7
1980	-1.7	-1.5
1981	-3.7	-0.5
1982	-5.0	-1.4
1983	-4.5	-2.3
1984	-3.6	-1.6

- In this period both government debt and the interest component of the budget continuously increased, thereby causing a change in public opinion against expansive fiscal policy measures. This occurrence possibly explains the weaker fiscal policy reaction of the government after the second oil shock and the tendency to rely on the built-in stabilizers.

### **Incomes Policy**

A speciality of the Austrian economic policy is incomes policy, the so-called “social partnership” between the unions and the employers. While monetary and fiscal policy are used to influence aggregate demand and the level of employment, incomes policy is implemented to control “cost-push” developments. These are inflationary developments resulting from wage-push and/or profit-push impulses. The Austrian variant of incomes policy can be characterized by three factors:

- It is a long-run concept.
- It is based on voluntary co-operation between the “social partners” and the government.
- It does not formulate any quantitative, binding, wage and price guidelines.

Contrary to wage and price controls and wage and price stops introduced for a while in the early 1970s by Great Britain and the United States, incomes policy in Austria represents a continuous economic policy activity. It is based on the voluntary cooperation of representatives of employers, trade unions and the government in the so-called “parity commission,” where questions pertaining to wage agreements (“wage-rounds”), as well as demands for price settlements by particular firms or

even industries, are subjected to a voluntary procedure of approval. The objective of the parity commission is to accept price increases on a cost mark-up principle, and to keep wage negotiations within a framework given by labour productivity increases as well as accepted inflationary expectations. The objective of the Austrian incomes policy can easily be interpreted in terms of the "Scandinavian" model of inflation (Frisch, 1977). It is important to align the development of money wages to changes in the productivity of labour in the exposed sector as well as to the international inflation rate in order to guarantee the long-term competitive position of the Austrian economy. The wage and price review procedure of the parity commission could admittedly not prevent inflation, nor corresponding increases in money wages, during the period 1971-76; it could, however, considerably dampen the transmission of the rapidly growing international inflation in 1973 and 1974 upon Austrian price developments. Above all, incomes policy prevented excessive inflationary anticipations from becoming a direct element in wage and price determination and thus further enhancing the dynamics of the inflationary development. This incomes policy, which is directed toward price stability and a dampening of inflationary expectations, has been supported decisively by the hard currency option through its "import of price stability."

More recently (1982 and 1983), the need for wages moderation has been accepted by the social partners (especially by the trade unions) and the inevitable terms of trade loss caused by the oil price rise was not offset by higher nominal wage claims. The incomes policy reflected in wage moderation has been an important factor in enabling the Austrian economy to absorb relatively smoothly the second oil shock without a major loss of employment.

### *Note*

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## Switzerland: Macroeconomic Problems and Policies since 1973

JEAN-CHRISTIAN LAMBELET

The year 1973 is a convenient starting point for this short survey since that year witnessed both the final collapse of the Bretton Woods system and the first oil shock. With the inception of floating exchange rates, Switzerland's National Bank — and other central banks as well, of course — gained the opportunity to follow an autonomous monetary course, if they so wished. In Switzerland this opportunity was seized upon from the outset. Since it will be argued later that monetary policy is a central issue in the Swiss economy, we might as well start with it.

### Switzerland's Monetary Policy

As soon as it had gained its freedom of action, the Swiss National Bank and its head (Dr. Fritz Leutwiler since 1974) embarked upon a clear-cut monetarist course, the objective being to bring monetary expansion under control in order to stop inflation.

In Table 6-1, the "monetary base" is adjusted so that it reflects the monetary aggregate which, since 1973, has been under direct control of the National Bank. This base exploded in the final two years of Bretton Woods, in 1971 and 1972. As long as exchange rates remained fixed, there was no escaping this kind of imported monetary expansion, and hence imported inflation, which came about because the rest of the world, and particularly the United States, had turned increasingly inflationary. Switzerland did try to shield itself from forced monetary expansion and imported inflation by revaluing its currency in May 1971 by slightly more than 7 percent and again in December 1971 by a little less than 5 percent, but, Table 6-1 shows, these steps were not nearly sufficient to insulate the country.

**TABLE 6-1 Monetary Base, 1969-77**

	Adjusted Monetary Base <sup>a</sup>	M1 <sup>a</sup>	M2 <sup>a</sup>	M3 <sup>a</sup>	Interest Rates	
					Short-term <sup>b</sup>	Long-term <sup>c</sup>
1969	4.1	5.4	12.1	10.3	4.8	4.9
1970	6.4	5.0	8.1	7.9	5.4	5.7
1971	29.3	16.5	8.3	11.1	3.2	5.3
1972	14.1	17.5	5.4	12.0	1.8	5.0
1973	-5.1	2.3	6.1	8.5	4.0	5.6
1974	4.3	0.1	8.9	6.7	6.0	7.1
1975	6.7	4.3	-0.4	5.1	3.5	6.5
1976	3.0	7.7	3.8	7.4	1.2	5.0
1977	3.5	5.4	5.0	8.6	2.1	4.1

a. Percent change in annual average figure.

b. Three-month deposits with large banks in Zurich, yield in percent per year, annual mean.

c. Average yield of federal bonds with a 5-12 year maturity, percent per year, annual mean.

In January 1973 the National Bank decided to let the franc float freely and find its own level in the exchange markets so that the bank would be free to concentrate on controlling the monetary aggregates. This policy break is clearly reflected in the time profile of the monetary base (see Table 6-1). The paths of *M1*, *M2* and *M3*, however, are also influenced by other factors, for example, interest-rate movements. All in all, however, the monetarist stance adopted by the Swiss National Bank in the 1973-77 period shows up clearly in the slow growth of the monetary base.<sup>1</sup> Its impact on inflation, however, was significantly delayed by the first oil price shock in the fall/winter of 1973/74, and perhaps also by a temporary slight relaxation of monetary policy in 1975 which marked the trough of the 1974-76 recession in Switzerland (Table 6-3). The predominantly restrictive orientation of Swiss monetary policy combined with the oil price shock to bring about a deep recession in 1974-76 (Table 6-4).

The fall in Switzerland's real GDP in 1974-76 was the largest in the entire OECD area. That the unemployment rate did not climb any higher is due to two phenomena shown in Table 6-5. (Some reasons why the Swiss unemployment rate remains relatively low will be examined in the conclusion). First, somewhat less than one-fifth (18 percent) of the 1974-76 fall in employment was absorbed by the Swiss component of the labour supply as the average retirement age fell, as schooling years increased, and as some Swiss (e.g., married women) withdrew from the labour force. Second, the bulk of the 1974-76 contraction in employment, that is, almost three-fourths (74 percent), however, fell on foreign migrant workers who had little choice but to return to their native land, so that only about 8 percent of the reduction in total employment translated into an increase in unemployment.

This impact on foreign workers gave rise to the often heard state-

**TABLE 6-2 Exchange Rates, 1969-77**

	Swiss Francs per U.S. Dollar <sup>a</sup>	"Effective" Exchange Rate <sup>b</sup>
1969	4.312	57.9
1970	4.310	57.4
1971	4.112	58.9
1972	3.819	59.5
1973	3.126	66.5
1974	2.980	71.5
1975	2.584	79.9
1976	2.498	90.0
1977	2.402	92.7

a. Annual average.

b. Average exchange rate vis-à-vis 15 important foreign currencies weighted by Swiss exports; Nov. 1977 = 100. An increase in the effective exchange rate means that the Swiss franc is appreciating on average.

**TABLE 6-3 Inflation Rates, 1969-77**

	GDP Deflator	Private Consumption Deflator
	(percent p.a.)	
1969	2.6	2.8
1970	4.7	4.0
1971	9.2	6.9
1972	9.8	7.6
1973	8.1	9.0
1974	6.9	10.0
1975	7.1	6.6
1976	2.7	2.2
1977	0.3	1.2

**TABLE 6-4 Employment Rate, 1969-77**

	Real GDP <sup>a</sup>	Employment <sup>b</sup>	Unemployment Rate <sup>c</sup>
1969	5.6	1.7	0.05 percent
1970	6.4	1.4	
1971	4.1	1.4	
1972	3.2	0.7	
1973	3.1	0.4	
1974	1.5	-0.5	0.4
1975	-7.3	-5.3	
1976	-1.4	-3.3	
1977	2.4	0.2	

a. Percent change p.a.

b. Number of jobs, percent change p.a.

c. Fully unemployed.

**TABLE 6-5 Changes in Swiss Labour Force (number of persons<sup>a</sup>)**

	1974-76 Recession	1976-81 Recovery
Swiss Workers	- 60,000	+ 5,000
Fully Unemployed	+ 25,000	- 20,000
Foreign Workers	- 245,000	+ 100,000
Employment	- 330,000 <sup>b</sup>	+ 125,000 <sup>c</sup>

Source: Swiss National Bank.

a. Approximations in round numbers.

b.  $\approx$ 10 percent of the 1973 labour force.

c.  $\approx$ 4 percent of the 1976 labour force.

ment—or charge — that Switzerland “exported its unemployment.” Swiss authorities are prone to reply that Switzerland did not export its unemployment but stopped importing foreign labour. Perhaps this is more than just a quip: prior to 1973 several parts of the Swiss economy could and did expand strongly only because they could draw on foreign labour; this expansion was particularly true in the construction industry which, by 1973, was clearly suffering from hypertrophia. It could be argued that these branches would not have had to contract as much in 1974-76 (and, as a result, would not have had to fire, or failed to hire, as many foreign workers) if they had not been able previously to expand so much by relying on foreign labour. Be that as it may, by 1977 things were clearly under control again and the monetary policy of the National Bank could be deemed a fair success, as inflation was down to almost zero (Table 6-3) and as output and employment were expanding again (Table 6-4).

One fact that helped considerably is that the direct impact of the 1974-76 energy price explosion was relatively slight in Switzerland, which typically produces goods and services with high value-added and low energy content — for example, pharmaceuticals, chemical specialties, high-quality instruments and machines, banking, tourism. (There is no heavy industry worth speaking of in Switzerland.) Of course, Swiss producers and particularly Swiss exporters were not unaffected by the impact which the first oil shock had elsewhere: abrupt shifts in relative prices, changing and shrinking foreign markets, and general restructuration; but this disruption is not nearly as bad as when energy is a large cost component of production. In any case, by 1977 it looked as if the impact of the first oil price shock had been successfully absorbed, at least to a large extent.

Then, in 1978, disaster struck or, to put it more mildly and realistically, things went haywire. Largely because of the overexpansionary policies followed by the new Carter administration in 1977 and 1978, there was an international flight out of the dollar and into, among others, the Swiss franc (Table 6-6). In six months, from the spring to the early fall of 1978,



**TABLE 6-6 Exchange Rates, 1977-83**

	Swiss Francs per U.S. Dollar <sup>a</sup>	"Effective" Exchange Rate <sup>b</sup>
1977	2.402	92.7
1978	1.786	114.6
1979	1.663	115.7
1980	1.674	113.8
1981	1.964	117.6
1982	2.032	127.6
1983	2.100	135.5

a. Annual average.

b. Average exchange rate vis-à-vis 15 important foreign currencies weighted by Swiss exports; Nov. 1977 = 100. An increase in the effective exchange rate means that the Swiss franc is appreciating on average.

**TABLE 6-7 Employment Rate, 1977-85**

	Real GDP <sup>a</sup>	Employment <sup>b</sup>	Unemployment Rate <sup>c</sup>
1977	2.4	0.2	0.4
1978	0.4	0.6	0.4
1979	2.5	0.7	0.3
1980	4.6	1.8	0.2
1981	1.5	1.3	0.2
1982	-1.2	-0.7	0.4
1983	-0.3	-1.1	0.9
1984	3.0 <sup>d</sup>	0.3 <sup>d</sup>	1.0 <sup>d</sup>
1985	2.7 <sup>d</sup>	1.2 <sup>d</sup>	0.9 <sup>d</sup>

a. Percent change p.a.

b. Number of jobs, percent change p.a.

c. Fully unemployed.

d. Forecasts (Centre de recherches économiques appliquées — "Créa" — Université de Lausanne).

the Swiss franc appreciated by fully 25 percent on average and at one point (in late September) the dollar fell to SFr 1.44 on the spot market and the Deutsche Mark did even worse. (The franc/DM parity is quite important as West Germany is Switzerland's main export market, supplier, and competitor on third markets.) As a result, foreign orders to Swiss export industries dried up almost completely, the economy slowed down sharply (Table 6-7), and pressures from all quarters built up until, by the end of September, the National Bank had no choice but to announce that it would henceforth intervene on the foreign exchange markets to whatever extent necessary to bring the franc down, regardless of the money supply targets.

The bank did intervene (helped in good time by a symmetric change in the U.S. Federal Reserve's policy), and on such a scale that the ensuing bulge in monetary aggregates (Table 6-8) could not be made good before

TABLE 6-8 Monetary Base, 1977-85

	Adjusted Monetary Base <sup>a</sup>	M1 <sup>a</sup>	M2 <sup>a</sup>	M3 <sup>a</sup>	Interest Rates	
					Short-term <sup>b</sup>	Long-term <sup>c</sup>
1977	3.5	5.4	5.0	8.6	2.1	4.1
1978	16.8	16.3	7.4	9.1	0.6	3.3
1979	5.9	8.5	9.8	9.4	1.3	3.4
1980	-7.9	-9.0	17.8	6.5	5.0	4.7
1981	-0.6	-3.6	13.1	5.3	8.2	5.6
1982	2.6	3.0	4.0	3.5	4.4	4.8
1983	3.6	7.5	-3.3	6.7	3.3	4.5
1984	3.0 <sup>d</sup>	1.8 <sup>e</sup>	6.5 <sup>e</sup>	—	4.4 <sup>e</sup>	5.0 <sup>e</sup>
1985	4.0 <sup>e</sup>	2.7 <sup>e</sup>	4.4 <sup>e</sup>	—	4.4 <sup>e</sup>	5.3 <sup>e</sup>

a. Percent change in annual average figure.

b. Three-month deposits with large banks in Zurich, yield in percent per year, annual mean.

c. Average yield of federal bonds with a 5-12 year maturity, percent per year, annual mean.

d. Official target for 1984; may be undershot somewhat.

e. Forecasts ("Créa").

TABLE 6-9 Inflation Rates, 1977-85

	GDP Deflator	Private Consumption Deflator
	(percent p.a.)	
1977	0.3	1.2
1978	3.6	0.6
1979	2.0	4.4
1980	2.7	4.5
1981	6.9	6.6
1982	7.4	5.6
1983	3.2	2.9
1984	1.3 <sup>a</sup>	2.2 <sup>a</sup>
1985	2.9 <sup>a</sup>	2.8 <sup>a</sup>

a. Forecasts ("Créa").

1981. (Applying a 3 percent annual growth rate to the 1977 figure for the monetary base yields a series that converges with the actual series in 1981.) It is therefore not surprising that inflation, which was fully under control in 1976 and 1977, picked up steam in 1979-81 (Table 6-9).

From the monetary policy standpoint, the main lesson from the 1978 exchange rate shock may be summarized in a nutshell: whereas Switzerland's monetary policy from early 1973 until September 1978 could be aptly described as unalloyed monetarism — or, in French, as *monétarisme pur et dur* — it has since become more pragmatic. That is, it remains basically monetarist in outlook, but if need be the Swiss monetary authorities are prepared to shift temporarily from controlling the monetary base to controlling some other variable such as the external

value of the national currency. Furthermore, when the focus is on controlling the monetary base (as it should be most of the time), the annual official targets will be set low enough to bring inflation down to zero and keep it there. With real output growing trendwise by 2 percent per year or perhaps somewhat more, this translates into targets of the order of 2 to 2.5 percent per year. Should there be a really deep recession, however, a temporary relaxation probably could not be ruled out too (as happened in 1975).

It must be emphasized that deviations from the basic Friedmanite rule (i.e., keep the monetary base growing slowly and steadily<sup>2</sup>) should not be expected to occur unless and until there is some really big shock as in 1978. In normal times, presumably most of the time, the monetary base can be expected to follow a predictable path and the National Bank is quite ready to put up with the stronger short-term fluctuations in interest and exchange rates that might be the counterpart of a steady and slow monetary expansion.

So far this policy of enlightened monetarist pragmatism has paid off rather handsomely. Since 1981 the monetary base is back on track and its expansion is rather more steady and slow (Table 6-8) than what we observe in many and probably most other countries. As to inflation, the 1978-79 monetary spurt did not at first produce much of an acceleration (Table 6-9). Then, the unexpectedly high inflation rates in 1981 and 1982 (GDP deflator) or in 1979-82 (private consumption deflator) were due to two phenomena working in the same direction. First, there was the 1979-80 second oil price shock. Second, the Swiss franc went through a phase of relative weakness from 1978-79 until 1981-82 (Table 6-6). This phase was due not only to the rebound strength of the U.S. dollar but also to the fact that in international comparison, interest rates remained relatively low in Switzerland (Table 6-8). This outcome suggests that the central role attributed to U.S. interest rates and consequently to the U.S. public deficit in explaining high interest rates in other countries may be something of an exaggeration.

As Table 6-7 also shows, the 1981-83 recession was rather mild in Switzerland. Real GDP did decline slightly in 1982 and possibly in 1983 (final figures not yet in), but unemployment barely passed the 1 percent benchmark, although the "buffer role" of the foreign migrant labour force is becoming less important as a result of a clear shift in the federal government's immigration policies, where assimilation is now the central guideline (Table 6-10). In 1984 and 1985 growth is expected to resume at a respectable rate for Switzerland's mature economy (Table 6-7) while employment should start expanding again at a moderate pace; unemployment should start declining slowly some time soon. As to inflation, it is down to an acceptable level even though the 1984 forecast in Table 6-9 is probably somewhat on the optimistic side. The final figure for the private consumption deflator in 1984 is more likely to be of the order of

**TABLE 6-10 Changes in Swiss Labour Force (number of persons<sup>a</sup>)**

	1974-76 Recession	1976-81 Recovery	1981-83 Recession
Swiss Workers	- 60,000 ( $\approx 1/6$ )	+ 5,000 ( $\approx 1/20$ )	- 20,000 ( $\approx 3/10$ )
Fully Unemployed	+ 25,000 ( $\approx 1/12$ )	- 20,000 ( $\approx 1/6$ )	+ 25,000 ( $\approx 2/5$ )
Foreign Workers	- 245,000 ( $\approx 3/4$ )	+ 100,000 ( $\approx 4/5$ )	- 20,000 ( $\approx 3/10$ )
Employment	- 330,000 <sup>b</sup>	+ 125,000 <sup>c</sup>	- 65,000 <sup>d</sup>

Source: Swiss National Bank.

a. Approximations in round numbers.

b.  $\approx 10$  percent of the 1973 labour force.

c.  $\approx 4$  percent of the 1976 labour force.

d.  $\approx 2$  percent of the 1981 labour force.

2.5-3 percent. This comparatively favourable picture may well have something to do with the type of monetary policy followed by the Swiss National Bank.

Switzerland's macroeconomic experience since 1973 may perhaps also shed some light on a question of general interest: Is it possible for a small open economy to pursue independent macroeconomic policies, to "go it alone"? Or, alternatively, is permanent decoupling a feasible option for such an economy?

In an ideal world, successful decoupling means, to put it roughly, that the gap between foreign and domestic interest rates is equal to the appreciation/depreciation rate of the national currency, which in turn is equal to the inflation-rate differential. (Of course, several factors, for example, tax law differences, capital movement controls, productivity differentials, can qualify this simple picture.) Table 6-11 shows to what extent this three-way equality holds for Switzerland.

In the 1953-72 period, under Bretton Woods, the difference between the U.S. and the Swiss long-term interest rates was relatively small, that is,  $4.45 - 3.77 = .68$  considering the sample means.<sup>3</sup> This is as expected given that a high degree of convertibility existed between the United States and Switzerland in that period. On the other hand, if we consider the "average" foreign long-term interest, that is, INTETR in Table 6-11 where the weights are the same as those used to construct the "effective" exchange rate for the franc (i.e., EERCH), then the difference between the 1953-72 sample means is considerably larger:  $5.96 - 3.77 = 2.19$ .<sup>4</sup> Again, this is not unexpected since many countries in the sample of fifteen used to construct both INTETR and EERCH<sup>5</sup> retained some form of currency control even after 1958. Finally, even under Bretton Woods there was a slight but significant tendency for the franc to appreciate vis-à-vis the dollar and vis-à-vis most other currencies, a tendency most noticeable in the last years of the period.

Turning to the floating exchange-rate period (1973-83), the Swiss long-term interest rate remained stationary over that period while the similar

TABLE 6-11A Fixed Exchange Rates (1953-72)

	Mean	Standard Deviation	b (t-statistic)	Trend Growth Rate ( $\ln Y = \hat{a} + b \cdot \text{Time}$ )	r <sup>2</sup>
INTCH <sup>a</sup>	3.774	0.934	.0375 (10.1)		.84
INTETR <sup>b</sup>	5.962	1.057	.0266 (10.4)		.85
INTUS <sup>c</sup>	4.450	1.364	.0487 (12.5)		.89
EERCH <sup>d</sup>	56.72	1.309	.0034 (7.2)		.73
DOLLAR <sup>e</sup>	US\$1 =				
	4.37 until May 1971				
	4.08 until Dec. 1971				
	3.84 until Jan. 1973				

TABLE 6-11B Floating Exchange Rates (1973-83)

	Mean	Standard Deviation	b (t-statistic)	Trend Growth Rate ( $\ln Y = \hat{a} + b \cdot \text{Time}$ )	r <sup>2</sup>
INTCH <sup>a</sup>	4.965	1.176	-0.0304 (-1.4)		.09
INTETR <sup>b</sup>	10.473	1.598	0.0336 (3.5)		.52
INTUS <sup>c</sup>	9.522	2.456	0.0665 (5.9)		.77
EERCH <sup>d</sup>			0.0703 (11.3)		.93
DOLLAR <sup>e</sup>			-0.0501 (-3.5)		.52
PCH <sup>f</sup>			0.0374 (15.0)		.96
PW <sup>g</sup>			0.0890 (51.9)		.996
PUSH <sup>h</sup>			0.0725 (46.8)		.995

Note: All data are annual averages.

a. Swiss long-term interest rate.

b. Average foreign long-term interest rates, same countries and weights as EERCH.

c. Long-term U.S. interest rate.

d. "Effective" exchange rate for Swiss franc (export weights).

e. Swiss francs per U.S. dollar.

f. Swiss GDP deflator.

g. OECD GDP deflator.

h. U.S. GDP deflator.

U.S. rate experienced a significant positive trend, which complicates the comparisons. But even so, the difference between the U.S. and the Swiss long-term rates — that is,  $9.52 - 4.97 = 4.55$  considering the sample means — is compatible with the average appreciation rate of the franc vis-à-vis the dollar, that is, slightly more than 5 percent per annum. The latter, however, is rather more than the U.S.-Swiss inflation rate differential, that is,  $7.25 - 3.74 = 3.51$  percent per annum.

Comparing Switzerland with the group of fifteen countries used to construct INTETR and EERCH, we find over the same period that the difference in the average long-term interest rates, that is,  $10.47 - 4.97 = 5.50$  taking sample means, is quite close to the inflation rate differential —  $8.90 - 3.74 = 5.16$  percent — but rather less than the franc's tendency to appreciate, that is, 7.03 percent per annum.

A sample of eleven years is probably still too short for this type of comparison aiming at identifying long-term tendencies. Nevertheless, it suggests that decoupling is indeed a viable option over the long run even for a small open economy such as Switzerland, although the fact that West Germany (Switzerland's main economic partner and competitor) applies broadly similar policies probably helped a lot. True, if we examine the individual annual figures, it is clear that we are sometimes far away from the ideal situation where interest-rate differentials are equal to both the inflation rate differentials and the appreciation/depreciation rates. But this does not mean that policies aiming at decoupling necessarily impose unbearable short-run strains on the economy: after all, there is some resilience in the latter and profits, in particular, can act as a buffer in response to all but the most severe short-term deviations. Thus, the conclusion about permanent decoupling which all this suggests, at least to this writer, is the same as that reached above concerning the feasibility of an unalloyed monetarist stance (which is as it should be since the two are closely linked) — that is, both are feasible options for most of the time, but now and then (as in 1978) there may be shocks so severe that a policy reaction becomes unavoidable.

## **Fiscal Policies**

Whereas Switzerland's public sector was mostly in surplus in the 1950s and 1960s, the early 1970s witnessed a clear deterioration, largely as a result of a spurt in social spending. Then, the 1974–76 recession took over, by producing a shortfall in tax revenues. From then on, however, priority was given at all levels (federal, cantonal, local) to balancing the public accounts and, as Table 6-12 shows, this struggle by and large paid off. As a result, there is no “crowding out” worth mentioning in Switzerland, and budgetary policies are and likely will remain faithful to the old fiscal religion, the idea being that the public sector ought to be properly financed. It is interesting for anyone familiar with the fiscal

**TABLE 6-12 Combined Public Deficit as Percent of GNP<sup>a</sup>**

Years	Percent
1969	0.6
1970	0.5
1971	1.9
1972	1.9
1973	1.5
1974	1.7
1975	1.6
1976	1.8
1977	1.0
1978	0.3
1979	0.8
1980	0.4
1981	0.2
1982	0.7

a. Consolidated deficit at the federal, cantonal and local levels.  
The 1983 figure is not yet available.

situation in most other industrialized market economies to watch the Swiss federal parliament getting agitated, periodically, over federal deficits which would be considered trifling anywhere else.

This is not to say that there is no "activist" component at all to Switzerland's fiscal policies. Both the 1974–76 and the 1981–83 recessions induced the federal and many cantonal governments to enact special fiscal packages (the so-called programmes de relance). But the amounts involved were relatively small compared to the size of the economy, and recent research has shown that the actual spending occurred (or will occur) after the recession faded away. Consequently, it is best to view these emergency packages as political sops. Whenever the economy slows down and a recession looms on the horizon, something has to be done to pacify and appease the public. But whether this something is of any real consequence is another matter.

To sum up, there really are no fiscal policies worth the name in Switzerland — that is, no policies that aim actively and effectively at influencing the business cycle. My companion paper on the macroeconomic policies in federal states (paper 10) will give further reasons for this situation. Suffice it here to note that the conservative, non-activist budgetary policies which are actually followed do not work at cross purposes with monetary policy.

## Conclusions

On the face of it, it might look as if Switzerland were a good illustration of how effective "sound," conservative monetary policies à la Friedman can be. Clearly, however, these policies could be successfully pursued in

Switzerland because of a number of factors and circumstances, some of which have already been mentioned, and which may or may not be transposable to other economies:

- The important, though fading, buffer role of a large foreign labour force.
- Equally conservative budgetary policies that do not work at cross purposes with monetary policy.
- The fact that the labour market in general is no constraint, particularly because unemployment has been and likely will remain unusually low.

What are the reasons for this happy state of employee affairs? Besides the role of foreign labour, we may mention the relative flexibility of nominal wages, for which there is good econometric and casual evidence. Switzerland's economy being highly decentralized, wage negotiations tend to be conducted at the level of the individual firm, labour relations are generally non-adversary, and workers as well as employees will usually agree to moderate their wage claims whenever justified by their firm's financial situation. Mention should also be made of the relatively high per capita stock of human capital. To the extent that the average worker or employee is relatively well educated, this may make him or her more adaptable and better able to change jobs whenever necessary because of restructuration, thus keeping structural unemployment down. The relatively high per capita stock of human capital in Switzerland in turn is due largely to an apprenticeship system which still works fairly well. The two essential features of this system, which is described in greater detail in a recent OECD publication,<sup>6</sup> are that apprentices are trained in "real-life" firms, not in vocational schools equipped with obsolete machinery; and the pay of apprentices is kept sufficiently low, especially in the early stages, to make it profitable for firms to hire them in large numbers. The Swiss unemployment benefit system is a third reason explaining why the unemployment rate is not higher. By and large, this system is rather tough: the unemployed must report to the relevant bureau between two and five times a week (depending on the canton), and they are put under considerable pressure to keep looking for a job or to accept one that may not seem ideally suited. Clearly, then, it is easier to envisage and apply a restrictive monetary policy aiming primarily at controlling inflation in an economy where the labour market is fairly flexible and in fact tends to conform to the classical model, even if it is of course not instantaneously and completely self-clearing.

- Switzerland's monetary policy is not subject to any balance-of-payments constraint. If we except 1980, when the Swiss balance on current account registered a small deficit in the wake of the second oil price shock, the country regularly posts large surpluses, for example,



US\$3–4 billion in recent years or 3–4 percent of GNP. Again, it is arguable that monetary policy will enjoy more leeway, one way or another, in an economy which is traditionally a large (relative to its size) net capital exporter.

- Besides a sufficiently robust and flexible domestic economy, the type of sound, conservative monetary policy adhered to by the Swiss National Bank also requires a reasonably stable international economic (above all, monetary) context. Whenever the international economy and particularly the international monetary “system” are subjected to a severe jolt, the National Bank may have to forsake its main priority (to keep the money supply and inflation down) and start concentrating on, for instance, the external value of the Swiss franc. As the 1978–79 episode has shown, it takes time before deviations of this sort can be reversed.

Finally, and lest the reader be tempted to think that everything is rosy in Switzerland, it should be mentioned that there are a number of economy-wide problems in Switzerland today. Let us have a rapid glance at three of them.

- We find that some markets are definitely becoming political. For example, the mortgage rate is no longer free to adjust as it used to, because the public increasingly ties it to rents, and rents are a sizable portion of total expenditures (about 20 percent on average; most Swiss people — about two-thirds — live in rented quarters).
- Although government expenditures have not risen as much as elsewhere in relation to GNP, the share of investment expenditures in total public expenditures is going down.
- Taxation is becoming heavy. Because each canton and each local community has its own fiscal laws and tax schedules, it is difficult to estimate what the average and marginal tax rates are in Switzerland today. As a first approximation, it would seem that the highest marginal income tax rate is of the order of 50 percent, perhaps somewhat more, for most Swiss. True, this was the highest marginal rate in Sweden around 1955, “in the good old days” there. To many Swiss today, it is unacceptably high.

## Notes

This paper was presented at the symposium "Lessons from Recent European and Australian Macroeconomic Experience" organized by the Macroeconomic Research Section of the Royal Commission on the Economic Union and Development Prospects for Canada, Ottawa, June 8–9, 1984.

1. In these years the official target of the National Bank concerned *M1*, and not the monetary base as today. As mentioned in the text, however, the latter is under direct control of the National Bank and hence is a better indicator of Swiss monetary policy.
2. Of course, Friedman's policy prescription for central banks is to ensure a steady growth of the money supply (say, *M1*). Why the Swiss National Bank has chosen instead to focus on the monetary base is a question which cannot be adequately discussed in this short survey.
3. If we treat each yearly figure as one observation — and hence if we neglect the fact that the yearly figures are themselves the means of a number of daily observations — then the difference between the two sample means is not significant at the 95 percent level.
4. Proceeding as in the preceding note, the two sample means are significantly different at the 95 percent level.
5. These 15 countries are Switzerland's main trading partners.
6. See the April 1982 OECD country study for Switzerland.

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## Summary of Discussion on Papers Relating to Austria and Switzerland

JOHN SARGENT

The discussion resulted in several useful extensions of points raised in the papers.

Professor Frisch noted that there is a high degree of integration of Austrian capital markets with those of West Germany, thus extending the parallel between Austria/Germany and Canada/United States. The government is not able to borrow directly from the central bank. But when it borrows abroad and converts the proceeds into domestic currency, the effect may well be to cause the central bank to expand the money supply in order to maintain the exchange rate. There is informal coordination (exchange of information) between the government and the central bank, and government enterprise must obtain the bank's permission before borrowing abroad.

Professor Frisch was asked to comment further on the reasons for the "Austrian miracle," and on whether the Austrian welfare state was subject to the crisis which earlier sessions had suggested applied to the Dutch and Swedish welfare states. Professor Frisch noted some qualifications to the "miracle." Pent-up demand for labour in the service sector helped ease the adjustment to the first oil shock; this was a "once-for-all" piece of good fortune. Unemployment rose substantially after 1980 though it is still lower than in most other countries. He attached importance to the successful conduct of monetary, fiscal and incomes policy, but noted that, in the most recent recession, fiscal policy has been constrained by the government and by current account deficits which had built up as a result of expansionary fiscal policy after the first oil shock.

With respect to the lack of apparent crisis in the Austrian welfare state, Professor Frisch attached great importance to the fact that the

Austrian labour market has in many respects continued to function well. The absence of widespread wage indexation helped Austria to avoid the severe squeeze on profits which followed the first oil shock in countries with widespread wage indexation: Belgium, the Netherlands and Italy. The Austrian apprenticeship system, with its low wages and training, is effective in helping young people gain initial employment.

Professor Lambelet added that the association of high payroll taxes with the welfare state, and the resulting divergence between employer costs and employee incomes, is another important specific way in which labour market functioning has been impaired in some welfare states. (There was no explicit mention of the relative importance of payroll taxes in Austria.) In general, the two panelists stressed that, to the extent there is a crisis, it may not be inherent in the welfare state but rather may reflect particular distortions which have been allowed to develop in labour markets.

Dr. Jakobsson noted that Professor Frisch has continued to be able to apply the "Scandinavian model" of inflation in an open economy to Austria, whereas this model is now generally viewed as having broken down in Scandinavia itself. He attributed the latter breakdown to a tendency in Scandinavia for governments to act as if "inflation was internationally determined with any kind of policy you might follow," whereas Austria recognized the limits implied for its monetary and fiscal policy if a stable exchange rate was to be maintained.

Mr. Allsopp contrasted the shared relatively successful record of performance of both Austria and Switzerland, with their very divergent wage determination systems: corporatist in Austria's case, and highly decentralized and *laissez faire* in Switzerland. He asked whether the success of the Austrian incomes policy at the macro level had not given rise to problems of excessive rigidity in relative wages at the micro level — the Achilles' heel of successful incomes policies. Professor Frisch acknowledged that rigidities in relative wages were a problem, that the Austrian labour market displayed less mobility than did Switzerland's, and that the rigidities could be expected to be a source of difficulty when major adjustment was required as appeared to be the case for steel.

The discussion concluded on the issue of the transferability of one country's experience to other countries. Both Professors Frisch and Lambelet were cautious in this regard, Professor Lambelet noting that at least some of the Swiss success was due to the good fortune of having very few single industry areas. This made adjustment easier and, more importantly, lessened tendencies for strong regional political pressure to develop in favour of government intervention to save declining industries. Professor Frisch, while also cautioning against facile attempts to transfer the Austrian model, did disagree with the suggestion that the

Austrian success might be due almost entirely to the particular labour and government leaders in place since the war (who might be expected to leave the scene shortly). He suggested that the Chamber of Labour/ Chamber of Commerce/Chamber of Agriculture institutional structure played a significant role in enhancing cooperation.

## **PART IV**



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# **Australia and the United Kingdom**



## **Recent Macroeconomic Experience in Australia**

R.G. GREGORY

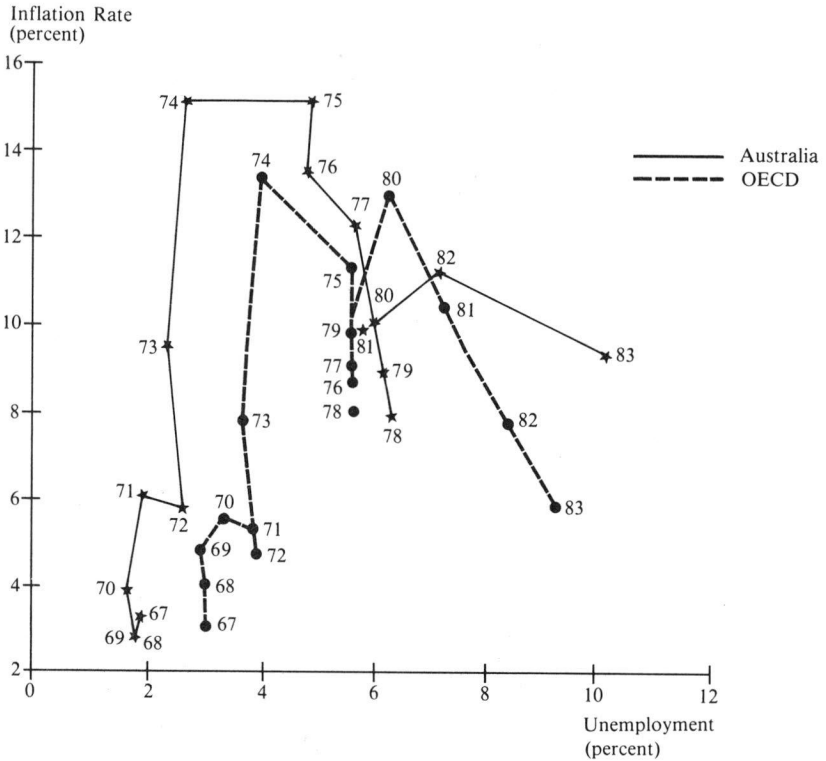
Along with most member nations of the OECD, the economic performance of the Australian economy during the 1970s and 1980s has deteriorated in almost every dimension. Indeed, in some important respects, the deterioration of our performance has been greater than average. In these remarks I focus primarily upon certain aspects of what many see as the central policy issue: the inability to restore full employment at low rates of inflation. Most of the comments in the first part on inflation and unemployment emphasize labour market relationships. In the second part there are comments on exchange-rate management and protection policy.

### **Inflation and Unemployment in Australia**

**Lesson 1: The Australian economy has been subject to the same influences as most OECD countries.**

The recent inflation-unemployment history of Australia and OECD member nations<sup>1</sup> is given in Figure 7-1. The most obvious feature is that changes in the Australian inflation and unemployment experiences are almost the same as those of the OECD average, despite flexible exchange rates, an Australian mineral boom, and a unique wage-setting institutional structure.<sup>2</sup> It is important to bear this close parallel of experience in mind, not as an excuse for a policy vacuum — What can we do when world influences are so strong? — but to temper expectations as to what local policy makers might be expected to achieve. Although our economy seems to be primarily influenced by world factors, there is still room for local policies.

FIGURE 7-1 Inflation and Unemployment, Australia and the OECD



Source: Organisation for Economic Co-operation and Development *Historical Statistics* (Paris: OECD, 1982), and *Economic Outlook* (Paris: OECD, July 1983).

Despite the overwhelming similarity of Australian and OECD experiences there are a number of important differences which deserve some comment. During the sixties and until 1970 Australia generally had a lower rate of price inflation and a lower unemployment rate than the OECD average. Since 1970, however, we have consistently done worse with respect to at least one of these policy objectives and often with respect to both. It is not really known why the performance of our economy has changed. A list of possible factors includes changing immigration flows (Hughes, 1975), the changing level of unemployment benefits and welfare payments (Trivedi and Baker, 1983), the growth of two-income families, the growth of the government sector, and structural changes generated by the rapid decline of the manufacturing sector. In practice it is very difficult to explain fully why the economic performance of countries changes over time. There is no clear consensus in Australia as to why our performance deteriorated.



In the following sections I take a narrower approach and focus upon some recent analyses of the wage-unemployment relationship and why that tradeoff has deteriorated for Australia.

**Lesson 2: Higher and steady levels of unemployment do not seem to moderate wage inflation, at least in the medium term.**

### *The Australian Phillips Curve*

Although there has been some weakening of this view, most Australian economists see inflation and unemployment as linked together by a Phillips Curve. Wage changes are believed to respond systematically to the level of unemployment and to expectations of future price changes:

$$w = a - bu + cp^e \quad (1)$$

where  $w$  is the rate of growth of money wages

$u$  is the rate of unemployment

$p^e$  is the expected rate of growth of prices.

Until quite recently there seemed, in the Australian academic literature, to be a reasonable degree of agreement as to the nature of (1). The coefficient attached to the unemployment rate was negative and statistically significant and the coefficient attached to the price expectations variable was very close to unity, which perhaps implies that there was no long-run tradeoff between wage increases and unemployment (Hagger, 1978). The natural rate of unemployment was estimated to be somewhere between 1½ and 2 percent. The empirical results indicated that unemployment rates lower than this figure would be accompanied by accelerating inflation.

Under these circumstances the current Australian rates of unemployment of 9–10 percent should reduce wage inflation quite quickly. Furthermore, even if the employment growth rate should accelerate sufficiently to reduce unemployment to say 5 or 6 percent in the near future, the rate of growth of wages should still continue to decline. The Australian Phillips Curve literature, therefore, suggested that over the next few years it should be possible to achieve large reductions in wage inflation and unemployment quite quickly.

Despite the findings of this literature it seems to be a central proposition of economic policy in Australia that if unemployment is reduced quickly, wage inflation will accelerate significantly.<sup>3</sup> The current view of most policy makers was strongly influenced by the wage outcomes of the economic upturn of 1979–81. During this period, employment grew at normal rates, unemployment stopped increasing but did not fall significantly, and there was an acceleration of wage inflation from 7.7 percent in 1978/79 to 13.6 percent in 1981/82. This level of wage inflation was not predicted by a simple Phillips Curve such as (1) above. On the basis of that equation, wage inflation should have continued to fall.

Perhaps the two most popular explanations for the acceleration of wage inflation are:

- The wage acceleration was a reaction to the prices and incomes policy that operated between 1975 and 1980. This policy, particularly toward the end of the period, attempted to reduce real wages marginally and some have argued that this reduction led to a wage breakout that could have been avoided by a more generous attitude toward real wage increases on the part of the government and the Commonwealth and Arbitration Commission (Isaac, 1981).
- The wage acceleration was a response to a widespread belief that a significant increase in Australian real wealth was about to be generated by recent mineral discoveries and developments. The wage acceleration was the manifestation of labour's attempt to gain its share of the forthcoming wealth.

It is interesting that neither of these explanations of the 1979–81 period relates wage increases to excess demand in the labour market.<sup>4</sup> Both stress labour market responses to expectations on the part of workers as to what is a reasonable rate of growth of real income. The academic literature has yet to investigate fully these explanations. Instead, it has taken a slightly different tack. Since about 1980 there have been two attempts to integrate the wage and unemployment experience of this period into a Phillips Curve. One attempt focusses on the measure of labour utilization (Gregory, 1982; Gregory and Smith, 1985) and the other on the measure of price expectations (Dornbusch and Fischer, 1984).

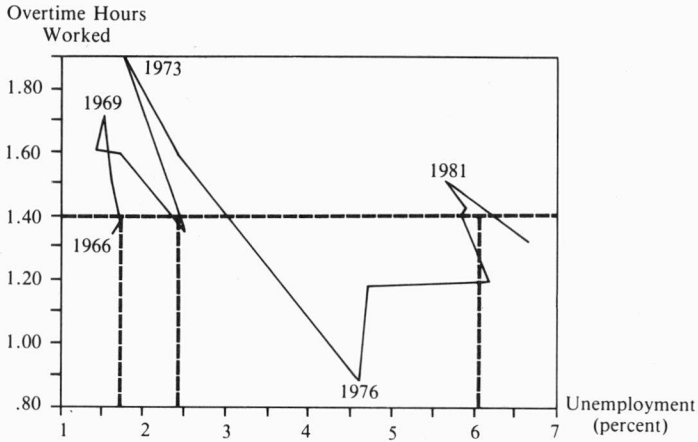
### *Explanations of the Shifting Phillips Curve*

#### *The Labour Utilization Measure*

It has been argued that over the range of unemployment experienced in Australia to date, it is the labour utilization rate within firms (measured by overtime hours worked) that is particularly important for wage outcomes rather than the labour utilization rate within the economy (measured by the rate of unemployment).<sup>5</sup>

Before 1975 these two labour utilization rates moved together and the Phillips Curve was stable whichever labour utilization measure was used as an independent variable. Since 1975 the behaviour of the two utilization rate measures has diverged. After the 1975 recession the utilization rate of labour within the firm gradually returned to normal levels whereas the utilization rate of labour in the economy did not (Figure 7-2). For example, during 1979 and 1980, when unemployment was about twice that which prevailed in the two decades before 1975, the average level of factory overtime had already returned to near previous long-run and normal levels. For the employed labour force, therefore, economic conditions within a firm did not appear to be different from a period when

**FIGURE 7-2 Unemployment vs. Overtime Hours Worked, 1966-82**



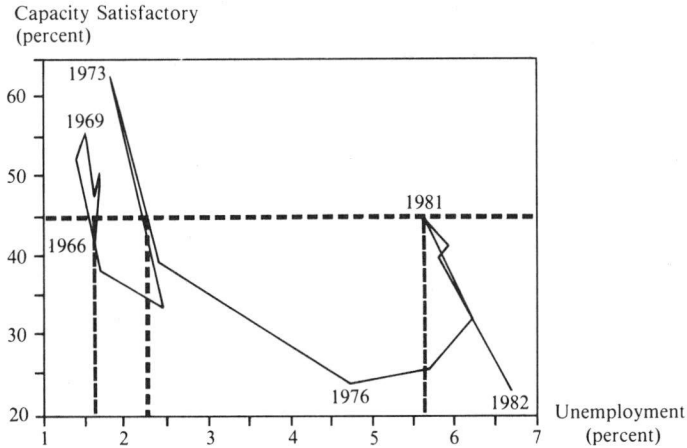
Source: Overtime hours worked: To July 1979, Monthly Review of Employment Situation, Department of Employment & Youth Affairs; July 1979 forward, ABS Cat. No. 6302.0. Unemployment rate: *The Labour Force*, ABS Cat. No. 6204.

full employment in the economy as a whole prevailed. The employed labour force seemed to be as busy as was usual during previous booms. For example, management asked the employed labour force to work above average levels of overtime just as it had always done in previous times when labour was scarce. Consequently, if wage claims are related to the perception of the employed labour force as to conditions within the firm, then a much higher rate of unemployment in 1979 and 1981 would be associated with a rate of wage inflation similar to that of an earlier period when unemployment was lower. The Phillips Curve would be stable when defined with respect to labour utilization rates within the firm but unstable when defined with respect to labour utilization rates for the economy as a whole.<sup>6</sup>

A similar divergence has occurred between the level of unemployment and the rate of capacity utilization within the firm as measured by the proportion of respondents in a manufacturing survey who report that their capacity utilization rate is satisfactory.<sup>7</sup> In 1970, when 45 percent of respondents reported a satisfactory rate of capacity utilization, the level of unemployment was 1.6 percent. In 1974 a similar response rate was associated with about 3.3 percent unemployment. By 1981, the same response rate was associated with 5.5 percent unemployment.<sup>8</sup> The Australian economy now reaches full capacity utilization rates within the average firm well before labour is fully utilized in the economy as a whole.

This dislocation has important implications for the likelihood of the

**FIGURE 7-3 Unemployment vs. Capacity, 1966-82**



Source: Capacity Utilization: *Survey of Industrial Trends in Australia*, The Confederation of Australian Industry and Bank of New South Wales. Unemployment rate: *The Labour Force*, ABS Cat. No. 6204.

economy being able to return to low unemployment and inflation rates in the future. It suggests that there may be a ratchet effect operating with each increase in unemployment, if that unemployment is associated with a long recession during which utilization rates of factors within the firm can return to normal but the utilization rates of factors within the economy do not. It suggests that the natural rate of unemployment may depend very much on the past history of unemployment (see Buiter, 1983).

Figures 7-2 and 7-3 can be used to calculate the unemployment rate at which full utilization of resources within the firm occurs. For example, if we define 1.4 hours as a normal rate of overtime, then the equilibrium unemployment rate has moved upward, from about 1.7 percent for 1970 to 2.4 percent for the 1970-79 period and about 5.8 percent for the 1979-82 period (Figure 7-2). Similar calculations can be made from Figure 7-3.

If this analysis is correct, it suggests the following lines of thought:

- If the economy grows very quickly, so that the recession, measured by the level of unemployment, is short lived, then the equilibrium unemployment rate may not increase much. The ratchet effect will be avoided. In terms of Figures 7-2 and 7-3 the economy may reverse its path along a relationship not very different from that between 1981 and 1982. If, as we suggest, wage inflation is related to utilization rates of factors within the firm, then the inflationary implications of such an expansion should not be too serious. This line of thought leads to a very different set of policy responses from those which were followed

in Australia and most of Europe after the 1975 recession, when governments tended to set policies to avoid fast rates of recovery. It further suggests that if the economic recovery is a lengthy process, the equilibrium unemployment rate will drift upwards and a drawn-out recovery similar to the 1974/75 to 1978/79 recession, for example, should establish a new equilibrium rate of about 9.5 percent. There will be a very serious ratchet effect.

- Less controversially, there is a need for policies that will change the perceptions of those employed within firms so that they identify more with general levels of unemployment. Higher but steady levels of unemployment are not enough to moderate the rate of wage inflation. These policies include various prices and incomes policies, but do not include those policies that have developed in Europe to protect the jobs of those currently employed at the expense of those unemployed.

### *The Price Expectations Measure*

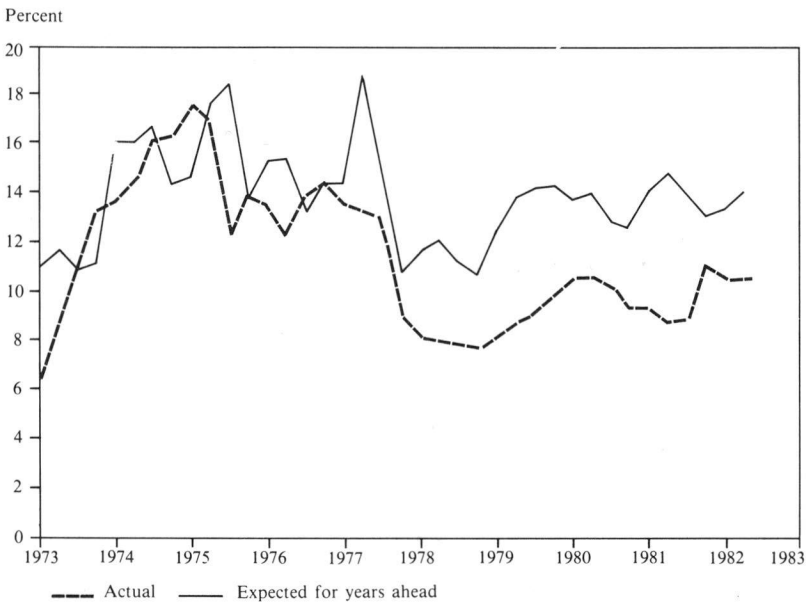
If price expectations are measured by a simple lag structure defined on past price increases, then, as suggested in the previous section on labour utilization, the Australia Phillips Curve, defined with respect to the unemployment rate, is unstable. If the coefficients are subject to stability tests, the coefficient attached to the price expectation term begins sometime after 1975 to drift upwards above unity and does so quite significantly. Once overtime hours are substituted for the unemployment rate, both the overtime and the expectation coefficients are stable (Gregory and Smith, 1985). This outcome explains the line of reasoning in this previous section.

The question is naturally raised whether a substitution of a different price expectation term can generate stability in the Phillips Curve without the need to substitute overtime for the unemployment rate.<sup>9</sup> This issue is pursued by Dornbusch and Fischer (1984) in their recent survey of the Australian economy.

A direct measure of price expectations can be constructed from a quarterly survey undertaken for the Institute of Applied Economic and Social Research.<sup>10</sup> The arithmetic mean of expected inflation from this survey is given in Figure 7-4 as the broken line. The actual inflation is given as the unbroken line. The expected and actual rates of inflation are fairly well correlated, but, significantly, since about 1975 expected inflation has generally been above actual inflation. During the recession of 1975/76 to 1977/78 expectations as to future price changes were slower to adjust downward than actual prices. Moreover, the upward movement in expectations that is observed in 1979–82 predated the increase in actual inflation.

Dornbusch and Fischer show that substituting this price expectation series can generate a stable Phillips Curve without the need to substitute a different measure of labour utilization for the unemployment rate.

**FIGURE 7-4 Annual Inflation Rates, 1973-82**



*Source:* Price expectations: Institute of Applied Economic and Social Research, University of Melbourne. Actual inflation: Consumer Price Index, ABS Cat. No. 6401.0.

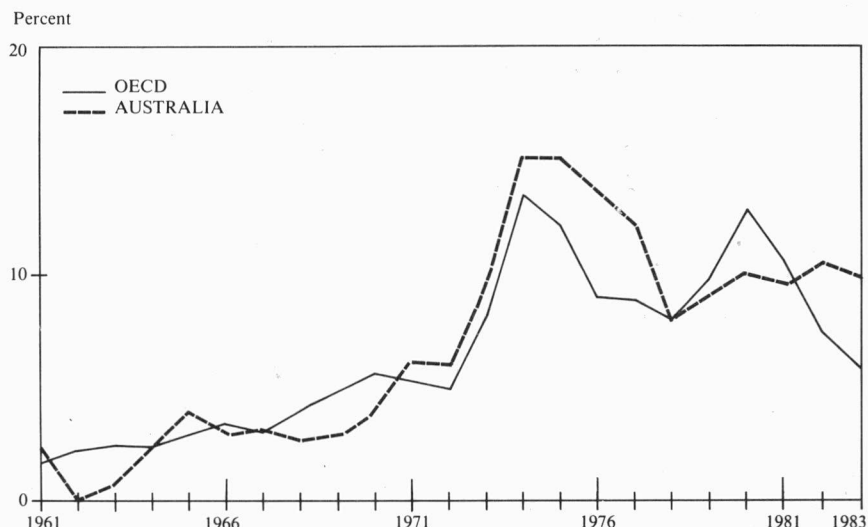
*Note:* Inflation expected for each year is that which was expected 12 months earlier.

They therefore reject the argument in the section on labour utilization and emphasize the stability of the Phillips Curve when defined with their measure of price expectations.<sup>11</sup>

It is important to realize, however, that this evidence is not necessarily a rejection of the arguments of this previous section nor, more importantly, is it a statement that nothing has really changed with respect to the Phillips Curve and macroeconomic management. What Dornbusch and Fischer have done is to change the important question from “Why has the Phillips Curve shifted when defined with respect to one price expectation term” to “Why have price expectations, as measured by them, shifted relative to past price changes”? There is also a subsidiary question as to why price expectations have been above actual price increases for almost a decade. Both these issues are yet to be addressed.

These two developments of the analysis of the Australian unemployment-inflation relationship pose new problems for economic management because both suggest the need for policy instruments over and above those which can affect the unemployment rate. They suggest either the need for influencing attitudes toward wage increases or influencing expectations as to price increases in a way that is yet to be fully explored.

**FIGURE 7-5 Growth of Consumer Prices, 1961-83**



Source: Organisation for Economic Co-operation and Development, *Economic Outlook* (Paris).

**Lesson 3: Because there is no agreement on a wage equation to explain nominal or real wage changes, there is no agreement as to the efficacy of Australia's price and income policies.**

There have been two recent periods in which Australia has adopted price and income policies. During the first period, 1975-80, the policy appeared to be largely one of real wage maintenance. The second period, beginning in 1983, has involved some real wage reduction brought about by a nominal wage freeze that operated during the first six months of 1983. Since then the policy has been one of real wage maintenance.

At this stage of our understanding, and partly because of the difficulties discussed above, it is not known whether the first policy was a success (Phipps, 1981) or whether the second policy will be successful.

If the first prices and incomes policy was a success, then it was not a dramatic one. In Figure 7-5 we plot the average inflation rates of the OECD countries and Australia and it is clear that price inflation in Australia was generally a little slower at coming down than the average inflation rate of OECD countries. Nevertheless, by 1978 inflation rates were similar and during 1979 and 1980 lower in Australia. It appears that during the current period Australian rates of inflation will again be slower to fall than the OECD average.

At this stage, 12 months after the Prices and Incomes Accord was introduced and with unemployment hovering around 9 percent (50 percent above the level of two years ago), it is generally believed in the

community that the current policy is a success. Over the last 12 months employment growth has been far stronger than predicted a year ago. Indeed, employment growth has been at record levels, but there has not been a serious breakout of wage increases.<sup>12</sup> High productivity growth and a real wage reduction introduced by the previous government have substantially restored profit margins and there seems to be a general feeling of optimism in the community. The rate of inflation is currently above OECD levels but is falling quite quickly. The real test of the Prices and Incomes Accord, however, will come about when utilization rates of factors within firms return to normal as they should do reasonably quickly and before unemployment falls to the levels prevailing before the current recession.

**Lesson 4: Unemployment changes in the Australian economy are increasingly an inadequate indicator of the underlying rate of economic growth and employment.**

As a general rule, the labour force grows more rapidly in periods of economic recovery and more slowly during recessions, thereby dampening cyclical fluctuations in unemployment<sup>13</sup> (Table 7-1). Before the recession of 1974/75 this relationship was sufficiently consistent for most economic commentators and analysts to treat unemployment and employment changes as different sides of the same coin. Since 1974/75 variations in participation in the labour force have become a more important factor contributing to unemployment variations and now need to be considered. Three examples will illustrate the point:

- Using changes in the unemployment rate as a criterion for measuring downturns, the period 1974/75 was, at that time, the most severe economic recession since before World War II. The unemployment rate increased 2.2 percentage points within a 12-month period (Table 7-1). Using employment growth as a criterion, the 1974/75 recession was relatively mild and not as serious as either the recession following the Korean War boom or that of 1960/61. These judgments are reconciled by the fact that during the early stages of the 1974/75 recession the participation rate increased and did not fall as it had done in previous recessions.
- During 1977/78, and on the basis of employment growth, Australia experienced an economic downturn almost as serious as that of 1974/75, but in this instance the participation rate fell along with employment growth so that the recession was scarcely detected in the unemployment data.
- Over the period 1979/80 employment grew at high rates, and the participation rate moved upward along with employment growth so that unemployment was not responsive to the improved economic conditions.



**TABLE 7-1 Employment, Labour Force and Unemployment (changes, selected periods)**

	Economic Downturns		
	Aug. 1974 to Aug. 1975	Aug. 1977 to Aug. 1978	Aug. 1981 to Aug. 1982
	(total persons)		
Change in			
Employment	- 13,900	- 25,800	- 8,700
Labour Force	+ 123,600	+ 10,600	+ 72,600
Unemployment	+ 137,500	+ 36,400	+ 81,300
Unemployment Rate	+ 2.2 percent	+ 0.5 percent	+ 1.1 percent
Participation Rate	+ 0.2 percent	- 1.1 percent	- 0.6 percent
	Economic Upturns		
	Aug. 1969 to Aug. 1970	Aug. 1972 to Aug. 1973	Aug. 1979 to Aug. 1980
	(total persons)		
Change in			
Employment	+ 212,600	+ 173,100	+ 205,200
Labour Force	+ 211,900	+ 134,800	+ 223,700
Unemployment	- 700	- 38,200	+ 18,500
Unemployment Rate	- 0.1	- 0.7	+ 0.1
Participation Rate	+ 1.0	+ 0.3	+ 1.0

Source: The Labour Force, ABS 6204.0, 6203.0. Taken from National Economic Summit Conference, *Documents and Proceedings*, Vol. 1 (1983), p. 369.

There are a number of important implications flowing from this changing participation behaviour:

- Australian governments are increasingly shifting their criterion of a satisfactory economic outcome toward employment growth and away from unemployment decreases. Thus the new Labour government, on its election in March 1983, promised to create 500,000 jobs over the following three years. Unemployment reductions were shifted into the background. The community, in general, seems quite prepared to accept this downgrading of the full employment objective.
- Over the last decade a significant fraction of the employment loss has been financed by welfare payments other than unemployment benefits. These include sickness benefits, invalid pensions, and early retirement to take up old-age pensions. Consequently, from a public finance viewpoint, the fact that unemployment has not always increased significantly during a recession does not relieve the government of the need to support those who left employment.
- As indicated in the previous section on labour utilization, it appears that unemployment levels and changes in unemployment are becoming

ing less satisfactory indicators of underlying capacity utilization rates in the economy.

- Although participation rate changes are becoming increasingly important as contributors to unemployment variations, it still remains true that variations in employment growth are the key determinants of unemployment.

At this stage it is not known why participation rate behaviour has become so erratic. Part of the explanation lies in the growth of fringe elements in the labour market — for example, the increasing importance of part-time employment — but this is by no means the whole story.

## **Exchange Rates and Protection Policy**

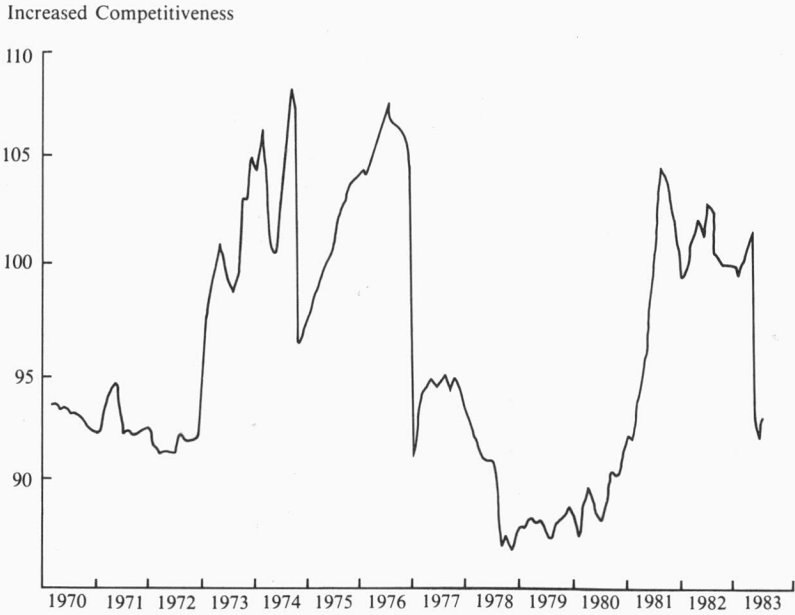
Australian economic policy has always been significantly affected by the balance-of-payments constraint. Throughout the 1950s and 1960s there was some concern that the rate of economic growth in Australia would be held back by our ability to export. This pessimism was generally attributed to a belief that future increases in agricultural supply were limited, that the terms of trade were steadily moving against our principal exports (wool, wheat, beef), and that the manufacturing sector was subject to a cost structure that prohibited exports.<sup>14</sup> During the 1970s the situation changed considerably, and most economic discussion has been directed toward the ways in which the economy might adjust to a rapidly growing export sector based upon mineral production. These debates and discussions have focussed on the effect of mineral exports on the size and nature of the import competing manufacturing sector, the need to adopt a more flexible approach to exchange rate management, and the need to reduce the overall level of import protection enjoyed by Australian manufacturing. In this second part I comment briefly on some of our experiences since the rapid growth of mineral exports began to exert a noticeable effect on the Australian economy.

### **Lesson 5: Large variations in the Australian exchange rate have not seemed to insulate the Australian economy significantly against world inflation trends.**

Australian policy makers were reluctant to allow exchange rates to vary significantly during the transition period after the Bretton Woods system collapsed, but economic circumstances gave them little choice. After a slow start in appreciating the exchange rate in 1972/73, the rate has become increasingly flexible so that since 1984 Australia has operated a freely floating exchange rate.

The real effective Australian exchange rate is presented in Figure 7-6. The upward and downward swings have been very dramatic. Whenever

**FIGURE 7-6 Real Effective Exchange Rate Index, 1970-83**



Source: Morgan Guaranty.

the world economy begins to grow at a reasonable pace the Australian exchange rate, fed by demands for minerals and primary products, begins to appreciate. These rapid appreciations may have moderated the Australian rate of inflation but apparently not sufficiently to change the relationship between Australian and OECD inflation systematically and obviously (Figure 7-5). Similarly, the large devaluations that have occurred do not seem to have increased the rate of inflation to a noticeable extent. The belief that exchange-rate changes would have dramatic and quick effects on the Australian price level was widely held during most of the seventies, but that belief has not been vindicated by events.

Of course, the juxtaposition of Figure 7-5, the OECD and Australian inflation rates, and Figure 7-6, the effective exchange rate, and noting the lack of a strong relationship, is not enough to indicate that the Australian rate of inflation has been independent of the large exchange-rate changes. It merely suggests that in the short term the relationship between exchange rates and inflation in Australia is not so strong as to be clearly evident. It should be remembered, however, that exports account for only about 16-18 percent of gross domestic product. In the short to medium term, inflation in Australia seems to be much more of a phenomenon that originates in labour markets.

**Lesson 6: Each exchange rate appreciation places considerable pressure on Australian manufacturing, and temporary assistance measures involved in response to this pressure have tended to last a long time. After the exchange rate devalues, the assistance has not been removed.**

The last decade and a half have seen remarkable changes in the sectoral shares of the Australian economy. Manufacturing employment, for example, has fallen from 29 percent of total employment in 1967/68 to 18 percent of total employment in 1981/82. The contribution of the rapid growth of mineral exports to this deindustrialization of the Australian economy has been the subject of much research and debate in Australia. For a survey see Helliwell (1984).

The rapid decline of the manufacturing sector, accompanied by increasing unemployment, led the Australian government between 1974 and 1977 to introduce import quotas to cover 10 percent of manufacturing production. The main industries to benefit from the quotas were footwear, clothing, textiles, and motor vehicles. The introduction of quotas was accompanied by a number of government statements to suggest that they were temporary and that they would be subject to steady liberalization. Quotas were to be introduced to enable a more planned rate of structural change and to give the industries a breathing space to adjust.

The liberalization of import quotas has not occurred. Between 1977/78 and 1981/82 the effective rate of protection has continued to increase in each of these industries although the import share has not been reduced. It appears that the adjustment required for these industries is now even greater than at the time import quotas were introduced. Quotas have not provided a breathing space for industries that need to undergo significant structural change. The ability of these industries to survive at reasonable rates of tariff protection has continued to deteriorate further behind higher levels of production (Table 7-2).

**Lesson 7: Our experience with quotas seems to have limited the extent of new trade restrictions during the current recession. This may be the result of both considerable expenditure on disinterested research and information collection on the results of the trade restrictions of 1975.**

During the current recession there has only been one new major trade restriction initiative: the subsidization of local steel production for a period of five years. The government successfully avoided extending import quotas to the steel industry, perhaps because of experiences in 1974-77 of import restriction initiatives. Australia has the advantage of an Industries Assistance Commission which continually reports on and calculates the costs of industry assistance. Australian industry assistance is probably the best documented in the OECD.

TABLE 7-2 Average Effective Rates of Assistance to Australian Manufacturing Subsectors, 1968/69-1981/82

	1968-69	1972-73	1973-74	1974-75	1977-78	1978-79	1981-82
				(percent)			
Food, Beverages and Tobacco	16	19	18	21	13	13	8
Textiles	43	45	35	39	57	52	54
Clothing and Footwear	97	88	64	87	149	145	204
Wood, Wood Products and Furniture	26	23	16	18	18	16	13
Paper and Paper Product, Printing	52	51	38	31	29	29	30
Chemical, Petroleum and Coal Products	31	32	25	23	18	19	13
Non-Metallic Mineral Products	15	14	11	11	5	5	5
Basic Metal Products	31	29	22	16	14	12	14
Fabricated Metal Products	61	56	44	39	32	34	34
Transport Equipment	50	51	39	45	61	63	79
Motor Vehicles	52	n.a.	41	77	124	130	158
Other Machinery and Equipment	43	39	29	4	21	21	22
Miscellaneous Manufacturing	34	31	24	27	27	27	27
Total Manufacturing	36	35	27	27	26	25	26

Source: Industries Assistance Commission Annual Reports (various issues) (Canberra: AGPS).

There has been an interesting institutional change in the area of industry policy. The Australian government is currently experimenting with industry councils as part of their policy to develop more consensus in the Australian community. The councils consist of trade union officials and employers drawn from the industry and a number of outside representatives. It will be interesting to see whether these councils act as institutors of possible structural change or whether they serve only to increase the ability of pressure groups to gain government support for their present structures. A number of councils are already calling for significant increases in government assistance for their particular industry. The Industries Assistance Commission which is charged with an economy-wide responsibility for industry assistance has always opposed the development of councils, which they see as increasing the political strength of those who place major emphasis on industry-specific policies and minor emphasis on the interests of the community at large.

## Notes

This paper was presented at the symposium "Lessons from Recent European and Australian Macroeconomic Experience" organized by the Macroeconomic Research Section of the Royal Commission on the Economic Union and Development Prospects for Canada, Ottawa, June 8-9, 1984.

1. This is only one of many comparisons that would show a similar range of experiences for Australia and OECD countries. Other similarities include a slowdown in productivity growth, a large government deficit, rapid growth of female employment and the service sector, and a large increase in the welfare budget.
2. The question that naturally flows from Figure 7-1 is why are the experiences of the OECD average and Australia so similar? Do the trade flows generate this result? Is it common variations in interest rates? Or just better communications in general? I have not seen any recent work in Australia on the relative strength of these linking factors.
3. When the new Labour government was elected in 1983 it called a National Economic Summit in May 1983 to consider the State of the Nation. A number of scenarios as to possible future economic outcomes were presented, but none included a significant reduction in unemployment. The implication was clear. As of May 1983, it was believed that to avoid an acceleration of wage inflation we would need to live with high unemployment for some time.
4. Both these explanations are consistent with some of the facts but a further reflection upon the data of Figure 7-1 will make clear the following two points. First, the wage acceleration of 1979-81 was not confined to Australia. It was a phenomenon that was general to OECD countries and therefore it is unlikely that uniquely local factors can explain the Australian experience. Second, it appears that the timing of key differences between Australia and the average performance of the OECD economies is not confined to this period. In terms of Figure 7-1 the larger differences in the rate of inflation seemed to occur during the early years of the seventies and again in 1983 and the larger differences in unemployment seem concentrated in 1975, 1977, and again in 1983. To some extent, therefore, the Australian policy discussions which are currently focussed upon the 1979-81 experiences need to be broadened and to go back to encompass the early period.
5. The statistical support for these arguments is given in Gregory and Smith (1985).
6. There are a number of reasons why unemployed labour resources outside the firm fail to exert much influence on the wage negotiation process. One reason is that unem-

ployed labour is very different from employed labour; the two types of labour are not close substitutes. In Australia the employed labour force, for example, can expect a job tenure with the current employer in the current geographical location of about 12 years. Furthermore, about 20 percent of the employed labour force can expect a job tenure of more than 20 years. For most of the work force, their employment experience relates to a particular firm during which time they not only build up firm-specific capital but are able to develop and reinforce many non-economic relationships with members of the firm which will affect economic decisions. By contrast, most of the unemployed have either not had a job, or their last job has been of short tenure. For example, as of May 1976, approximately one-half of the unemployed had not been employed in a full-time job in the previous 18 months; of those who had held a full-time job, about half had held that job for less than 26 weeks. The unemployed tend to be young, inexperienced and unskilled. There is a large degree of separation of the employed and unemployed. The implications of this separation for wage determination are discussed more fully in Gregory (1982).

7. Taken from the *Survey of Industrial Trends in Australia*, the Confederation of Australian Industry and Bank of New South Wales.
8. The comparison between 1977 and 1981 is also striking. The level of unemployment is the same in both years — about 5.5 percent — but the proportion of factories reporting acceptable rates of capacity utilization has almost doubled, increasing from 26 to 46 percent.
9. Since Equation (1) is linear, the changing contributions of the price expectations term  $cp^e$  can be accommodated either by a changing coefficient  $c$  — that is, the equation is unstable — or by substituting a different measure of price expectations  $p^e$  that shifts upwards relative to the previous price expectation variable to allow the coefficient to be constant.
10. In this survey 2,000 respondents are asked whether they expect prices to rise, fall or stay the same over the next 12 months. A further question asks those respondents who expect a price change to express a percentage estimate.
11. Dornbusch and Fischer (1984) also use another measure of price expectations. This series is constructed from a regression of actual inflation on past inflation and wage growth and can be regarded therefore as a price expectation term defined on past price increases, with the inclusion of a shift factor which becomes operative whenever the relationship between wage and price increases becomes distorted. The recent history of wage and price increases suggests that the shift factor became operative during 1973–74 and during the economic uprising of 1979–81.
12. There has been some non-compliance, however. The Builders Labourers' Union has won wage increases as have some food processor workers. At present the official statistics show a noticeable drift outside indexation, but these data are not widely believed.
13. This section draws on Appendix 2, The Labour Market in National Economic Summit Conference, *Documents and Proceedings*, Vol. 1 (1983).
14. This balance-of-payments pessimism was not shared by most academic economists. They were more optimistic about the ability of the economy to bring about and adjust to relative price changes that would remove the balance of payments as a constraint.

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## Macroeconomic Policy in the United Kingdom, 1970–84

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In common with other industrialized countries the United Kingdom has, since 1970, been buffeted by international shocks — such as the 1972/73 commodity price boom, the two oil crises, and, more recently, the gyrations of the dollar and world interest rates. Policy makers have faced severe problems of high and volatile inflation, major changes in the exchange rate and the terms of trade, a sluggish real economy displaying increasing structural problems, and, especially in the 1980s, a massive rise in unemployment to about 13 percent of the labour force. It is of obvious interest to analyze the policy responses, the successes and failures, and to draw out some features which may be relevant to other developed countries. There are also aspects unique to the United Kingdom. The first is the long-standing relative decline of the United Kingdom so that the problems of the 1970s were superimposed on a situation which was, in many respects, already unsatisfactory. The second is the possession of North Sea oil, which meant that the United Kingdom faced the first oil crisis as an oil importer and the second as a self-sufficient oil producer. The third is that the major recession of the 1980s was both earlier and deeper than in most other developed countries and (especially because of North Sea oil) cannot adequately be explained simply as a reaction to world events — however much policy makers would like to do so.

The most outstanding feature of the United Kingdom, however, must be the extraordinary change in policy attitudes and in the perceptions of how macroeconomic policy works that has occurred over the last decade. In the early 1970s the consensus view on economic management in the United Kingdom could be typed as broadly Keynesian (perhaps extremely so), with the accent on demand management to maintain

activity. In the 1980s policy became avowedly "monetarist" with the rhetorical emphasis on the "supply side." A major concern of this paper is to account for this change in the basis of policy and to examine the extent to which there really has been a "conversion" to a new economic ideology, as opposed to a more ordinary change in objectives (toward a tougher line on inflation) with the instruments of monetary and fiscal policy playing their traditional roles.

A principal theme of this paper is that it is possible to account, in broad terms, for economic developments in the United Kingdom (including the recession of 1980–82), given the monetary and fiscal policies followed, within an eclectic demand-management type of framework, so long as account is taken of the influence of inflation (especially in assessing the stance of fiscal policy) and of plausible financial linkages. This is not intended to imply that there are no areas of ignorance: there are some notable ones, particularly over the reasons for the rise in sterling in 1979 and 1980. It does mean, however, that it is plausible to see economic policy in the United Kingdom in terms of a gradual process of diversion of the demand-management instruments away from their traditional role of maintaining activity toward the control of nominal magnitudes and inflation, a process which occurred in many other countries. In the United Kingdom it started in the late 1960s<sup>1</sup> and, after several U-turns and changes of direction, was effectively complete with the Conservative administration of 1979–83.

But whilst it is possible to see policy in this way (and there is no doubt that many within the administration or outside who supported or acquiesced in the Conservative's strategy did see it basically as a conventional monetary and fiscal deflation against inflation<sup>2</sup>), the intellectual rationale for recent policies (and their public presentation) was very different. Initially, the rhetoric was monetarist, involving the usual optimism that the money supply was controllable and that control would reduce inflation rapidly with small costs as well as the effective neglect of fiscal policy. This soon gave way, however, to the Medium-Term Financial Strategy (MTFS)<sup>3</sup> which reintroduced fiscal policy as a central feature of the anti-inflationary strategy via a set of projections to 1984 showing a declining proportion of public borrowing (the Public Sector Borrowing Requirement or PSBR) to GDP.<sup>4</sup> The main rationale for the fiscal projections was that public borrowing should be "consistent" with the monetary targets. Beyond this, the United Kingdom's version of "PSBR monetarism," or of "Fiscalism,"<sup>5</sup> involved the active use of the fiscal instruments to achieve monetary objectives. In the United Kingdom, fiscal policy has been, in comparison with other OECD countries, almost uniquely tight.

A key issue, and one of more than parochial interest, is to evaluate the posited links between fiscal and monetary policy, which appear to underly the United Kingdom's financial strategy, against alternative

views of the relevant interactions. As in other countries, the debate over the effects of public borrowing and of national debt has become extremely confused, and there is little consensus. Different models or views, however, have very different implications for the future conduct of policy. There is also an extremely important question (which remains difficult to answer) about the relative weight to be assigned to financial policy, to North Sea oil, and to world events in explaining the massive rise in the United Kingdom's real exchange rate — which played so much part in determining the extent and shape of the recession (concentrated on manufacturing, which declined by no less than 20 percent). A lesson which can be drawn is the danger of concentrating on domestic financial targets in an open economy with floating exchange rates.<sup>6</sup>

In a short paper it is not possible to review the period in any great detail. The next section provides some brief background information on the main phases of policy since the early 1970s. This is followed by three sections giving a closer analysis of some of the prominent features of monetary policy, fiscal policy, and then of the interactions and balance between them (including the MTFs). The next section looks briefly at the problem of accounting for the United Kingdom's recession in 1980/81, and is followed by a section which looks forward, indicating some of the policy issues that seem likely to be important in the recovery period. A final section draws out some (tentative) conclusions as well as pointing to some of the uncertainties and areas of ignorance and dispute.

## **Changes in Policy Regime since 1970**

The 1960s were marked by a series of attempts to break out of a perceived vicious circle of slow growth, poor productivity, and balance-of-payments difficulties. Notable amongst these were the Maudling “dash for growth” of 1963–64; the 1964 Labour government's attempts at planning (the National Plan 1969), incomes policy (through the period 1964–70), and finally and reluctantly the devaluation of sterling in 1967. Though unemployment remained low, in terms of the public perception at least, these attempts were judged as failures and the 1960s ended with severe fiscal and monetary deflation — in order to make devaluation “work.” As is well known, the incoming Heath administration in 1970 started with a greatly reduced commitment to high employment policies and a generally tough line on labour relations and inflation. Sharply rising unemployment in 1970/71 (to exceed the politically sensitive one million mark) led to the famous U-turn, which basically involved a resumption of attempts to manage the economy via demand; reliance on incomes policy to try to control inflationary pressure (together with a softer line on labour relations); and the commitment to let the exchange rate float down if balance-of-payments problems and exchange pressure developed. Another feature of the period was the reform of the monetary

system (Competition and Credit Control, 1971) toward greater reliance on market forces, which led in 1972 and 1973 to an explosion of credit and growth in broad money (£M3), the total liabilities of the banking system held by U.K. residents.

The effects of the U-turn, which by itself may be judged as not very dramatic, were compounded by major policy errors (especially misjudging the lags before policy relaxations take effect), by the explosion of broad money and credit,<sup>7</sup> and above all by the international factors of the commodity price boom, the excessive international upswing, and subsequently the first oil crisis. The conjunction of exceptionally unfavourable errors and events meant that the U-turn itself came to have almost mythological significance: the political perception of its disastrous consequences was a major factor behind the adoption of radical anti-Keynesian policy attitudes by the Conservative administration of 1979–83.

The problems posed for the United Kingdom by the 1973/74 oil crisis were similar to those faced by most other developed countries. The United Kingdom had effectively no oil production in 1973 (though the major discoveries had been made and the rise in production from about 1976 onwards could be foreseen).<sup>8</sup> The mechanical impact of the price rise of imported oil on the balance of payments and on the price level (at about 3 percent of GDP) were of similar magnitude to those in other European countries and Japan.

The government changed in early 1974 after Heath called an election over the miners' strike. The Labour government's initial strategy appeared muddled and sometimes contradictory. In public pronouncements the need was seen for some deflation (to remove excess demand), but beyond that it was maintained that the "tradeoff" was very unfavourable and that a strategy of deflation and rising unemployment to quell inflation would be costly if not actually counter-productive. The United Kingdom's position on international issues was in favour of offsetting action to lessen the risk of serious world recession and in favour of official intervention in the recycling process. Events led to a concentration of the oil impact on the financial balance of the corporate sector (leading to destocking and labour shedding which was also induced by the international recession) — pressure which was relieved by specific budgetary help to the corporate sector in late 1974, and more generally by the automatic stabilizers which swelled the budget deficit as recession developed. The budget deficit in 1975 and 1976 rose to about 5 percent of GDP (Table 8-3) — a figure comparable with that experienced by other major OECD countries. The rise in inflation was substantially worse in the United Kingdom than in most other countries and the peak occurred later, in 1975. Wage inflation at the peak was running at over 30 percent per annum.<sup>9</sup>

The Labour government's strategy between the two oil crises relied

heavily on (voluntary) incomes policy. A particularly simple form was adopted which had the feature of fixed rises for most workers and hence implied a progressive narrowing of differentials. This policy, combined with a somewhat tighter demand-management policy and a reduced commitment to a rapid return to full employment, was apparently extremely successful: wage inflation tumbled down to reach about 8 percent in 1979.<sup>10</sup> Price rises fell quickly too, helped by the favourable movements in world commodity prices as the rapid world upswing in 1976 petered out into 1977.

An important change in policy regime occurred, however, halfway through the Labour government's period of office, following the sterling crisis of late 1976 (and the signing of the IMF Letter of Intent). Prior to that crisis, one strand of policy appeared to seek a competitive pound (or at least to acquiesce in downward movements) as an aid to the longer-term health of industry. A competitive exchange rate was, moreover, seen, at least in part, as a way of managing demand (and supply) in a way which did not require budgetary action. Indeed, a successful strategy of export-led expansion, it was argued, would curtail the need for deficit finance. Unfavourable aspects of a low exchange rate, especially in setting off inflation, were to be dealt with by incomes restraint.

There was a period in 1976 when the broad lines of this strategy appeared to be succeeding. Wages and prices were coming under control, the world economy was expanding again, and industry was extremely cost competitive. The balance-of-payments deficit had fallen sharply (0.7 percent of GDP in 1976) and North Sea oil was expected to build up in significant quantities very soon. Despite this improvement, and for reasons which remain obscure, there were a series of sterling crises through 1976 and a major run on the pound in the last quarter. The proximate cause of the latter seemed to be an article in October in the *Sunday Times*<sup>11</sup> suggesting that the visiting IMF delegation would have a target for the dollar/pound parity of \$1.50. It is likely that in some quarters there was an unofficial target that would have maintained competitiveness. In any case, market reaction was sudden and severe, necessitating, it was argued, a conventional deflationary package with higher interest rates and cuts in public expenditure. The Letter of Intent which accompanied the IMF loan negotiated in December spelt out targets for Domestic Credit Expansion and for Public Sector Borrowing. A monetary target of a somewhat informal kind had already been introduced in July 1976: from 1977 onward announced targets for £M3 were an important part of government economic strategy.

The IMF measures themselves were probably mainly important as an earnest of the government's intentions, marking as they did the abandonment of a "low" exchange-rate policy. The conversion was not initially complete, however. There was a spectacular turnaround in international sentiment in 1977 with strong capital inflows. Upward pressure on the

exchange rate was resisted through much of 1977, via a policy of intervention and rapid reduction in interest rates. The policy was, however, abandoned in October — the exchange rate was “uncapped” — as it was thought that sterilization of the inflows was impossible and monetary expansion excessive. From that period on the exchange rate was, in effect, left to market forces whilst attention was concentrated on domestic indicators of the thrust of financial policy — £M3 and the PSBR. (The regime change in 1977 is one reason why econometric investigation of the determination of the sterling exchange rate is so difficult, and has proved so inconclusive.)<sup>12</sup>

Though this development looks like the start of the so-called “monetarist” policies pursued by the subsequent Conservative government, there is an important difference which is not just of degree. Financial targets or indicators were well established from 1977 onwards, but were seen as guideposts to markets of the general thrust of monetary and fiscal policy.<sup>13</sup> The main weight of counter-inflation policy fell on incomes restraint. Demand-management policy needed to be consistent with the thrust of counter-inflation policy and, beyond that, a public commitment to monetary and fiscal targets could be helpful in stabilizing financial markets and increasing the credibility of the overall strategy.<sup>14</sup> The political attractions of such a package deal, especially for the monetary authorities, are apparent.

The budgets of 1977 and 1978 were framed within the terms of this strategy, although incomes policy started to disintegrate and wage increases picked up.<sup>15</sup> Some of the contradictions and pressures, especially those due to the squeezing of skill differentials and the public sector falling behind in successive phases of incomes policy, came to a head in the “winter of discontent” of 1978/79. In terms of public credibility, at least, the strategy lay in ruins.

Against this background, the change of policy with the Thatcher “experiment” of 1979–83 must seem less dramatic than is sometimes portrayed. Nevertheless, there was a further substantial “regime change” in moving from a supportive role for monetary and fiscal targets to a strategy of apparently complete reliance on them. Incomes policies were swept away,<sup>16</sup> as were exchange controls. Nevertheless, the extent of the change did not become fully apparent until the recession took hold, industry declined, and unemployment rose to three million, without leading to a significant loosening of financial policy. The “credibility” of the strategy against inflation probably owed far more to the government’s tolerance of adverse real economic developments than to the pre-announced financial strategy — especially as its central feature, the targets for £M3, were, in the event, very substantially exceeded. Despite the tight policies (in fact in part because of them), inflation rose, though not as high as after the first oil crisis (the peak for both earnings and prices was a little over 20 percent per annum). The scale of recession

greatly exceeded that in 1974/75. These events occurred despite self-sufficiency in oil and energy production which was achieved around 1980. Inflation, however, did respond, falling to about 5 percent in 1983–84.

## Monetary Policy

During the 1970s there was a considerable shift in emphasis toward reliance on monetary policy. Initially, at least, this shift owed little to the paradigms of academic monetarist theory and reflected instead a pragmatic response to inflation and the move to floating exchange rates. Monetary targets when introduced in 1976 were combined with a continuing emphasis on fiscal policy and incomes policy, an eclecticism which was fully in the tradition of the “package deal” approach of the fifties and sixties.

Since U.K. monetary policy is often misunderstood (particularly when analogies are drawn with North America), it is important to stress that monetary targets have (until very recently) been for broad money (£M).<sup>17</sup> Most of £M3 is interest bearing, and most of it is “inside money.” Apart from notes and coin — available of course on demand — central bank money (bankers’ balances at the Bank of England) is a minute fraction of total banks assets, literally only a few hundred million pounds. Liquid asset ratios were not thought to be of great operational significance, and have now been abolished. Small as they are, the requirement that bankers’ balances at the Bank of England remain above a minimum gives the central bank operational leverage on short-term interest rates.<sup>18</sup>

The institutional framework has some immediate implications. The first is that though attempts to meet monetary targets (when it appears that they might be overshot) lead to a reaction by the authorities and private sector agents, which raises interest rates, there is no certainty that higher interest rates will slow monetary growth — and there are circumstances when the response can be (and has been) perverse. The problem is that as the yield on deposits rises, asset holders may be encouraged rather than discouraged from holding them. Changes in the demand for £M3 depend on much more complex expectational effects, such as alterations in the implicit term structure. In general terms, while the link from monetary targetry to interest rates may be similar to that in other countries, the link to control of the monetary aggregate may be much weaker (or perverse). This does not mean, however, that monetary actions are ineffectual; higher interest rates bear directly on the cost of credit, the exchange rate, expectations, and directly and indirectly back into the demand for money.<sup>19</sup>

In practice, the problems of monetary control may be more severe than first appears. In the short term the effects of interest-rate rises on



the cost of borrowing money raise the demand for credit from the banking system if companies, for example, are badly hit and become "distress borrowers" as they did in 1980. The deficits created via the credit counterparts may, if interest rates are high, be willingly held swelling £M3. These problems are superimposed on more normal difficulties, such as financial "innovation"<sup>20</sup> and "disintermediation," if controls are imposed on the banking system.<sup>21</sup>

The authorities have relied heavily on funding policy as one method of influencing money. In practice, this system relies heavily on short-term interest-rate policy. Reliance on funding has been one reason for the authorities' continuing concern over public borrowing as an influence on money.<sup>22</sup> The public sector's contribution to money has been small through the 1970s, and substantially negative in some recent years. Alternatively, the main counterpart to the rise of M3 has been bank lending to the private sector which, as noted, may not respond easily to interest-rate rises.

Clearly, the operation of monetary policy in the United Kingdom is a great deal more complicated than suggested by the paradigms of monetarist or, for that matter, Keynesian theory. The use of a wide aggregate means that a simple story of the links between money and inflation via the transactions demand is not possible. The institutional structure means that it is probably best to see £M3 as "demand determined," given the level and structure of interest rates, but the determinants of demand are complex. Quantitative supply-side controls have played little role. When they have been used, disintermediation has been rapid. The use of targets is best seen as imposing a reaction function on the authorities which, nevertheless, may fail to meet the targets. The difficulty of meeting targets has meant that the authorities have been concerned that the targets should be realistic and they have been tolerant of overshoots by allowing "base drift."

It is obviously of interest to try and assess the stance of monetary policy over the 1970s and particularly in the period since 1979. Given the lack of adequate models, or even of an empirically stable demand for money function over the period, any such assessment is inevitably difficult, and the Bank of England has insisted, even more than in most countries, on the necessity for judgment based on a range of indicators. Table 8-1 shows some indicators over the period 1967-82.

The first column shows the ratio of £M3/GDP (reciprocal of velocity). It clearly indicates the major rise — following Competition and Credit Control — to reach a maximum of 0.40 in 1974. On the face of it, monetary policy was extremely expansionary over this period.<sup>23</sup> The figures for £M1, however, tell a different story, declining gently throughout the period. The interest cycles are apparent. Real interest rates<sup>24</sup> were strongly negative around the time of the first oil crisis, probably reflecting the unanticipated nature of inflation at that time. £M3



TABLE 8-1 Indicators of Monetary Stance, 1967-82

Year	£M3/GDP	M1/GDP	Short <sup>a</sup> Interest Rate	Long <sup>b</sup> Interest Rate	Real <sup>c</sup> Short	Real <sup>c</sup> Long	Real <sup>d</sup> Exchange Rate	£M3 End Year % Change
1967	0.32	0.20	6.18	6.80	1.49	2.11	100.6	9.55
1968	0.33	0.20	7.45	7.55	1.81	1.91	91.6	7.76
1969	0.33	0.19	7.85	9.05	1.99	3.19	95.3	2.04
1970	0.32	0.19	7.25	9.22	-1.18	0.79	98.9	9.43
1971	0.32	0.19	5.68	8.87	-0.86	1.33	103.0	12.89
1972	0.35	0.19	5.92	8.91	-2.73	0.26	94.9	24.61
1973	0.38	0.18	10.00	10.56	-7.16	-6.60	86.0	27.17
1974	0.40	0.17	12.29	14.79	-11.39	-8.89	97.7	10.46
1975	0.35	0.15	10.38	14.39	-5.34	-1.33	100.1	6.73
1976	0.32	0.15	11.17	14.43	-4.03	-0.77	86.3	9.52
1977	0.29	0.14	8.88	12.73	0.08	3.93	92.9	10.20
1978	0.29	0.15	9.07	12.47	-3.68	-0.28	97.2	15.13
1979	0.28	0.15	13.71	12.99	-2.52	-3.24	117.0	12.71
1980	0.28	0.13	16.31	13.79	5.52	3.00	148.2	19.05
1981	0.30	0.13	13.25	14.74	5.18	6.67	131.2	13.26
1982	0.30	0.13	11.93	12.88	5.83	6.78	134.4	9.77

a. Clearing Banks Base Rate.

b. 20-year gilts.

c. Interest rates minus consumer price inflation one year ahead.

d. Competitiveness based on Normalized Unit Labour costs.

was brought down sharply as a proportion of GDP, reaching a low point of 28 percent in 1979 and 1980, before rising a little in 1981 and 1982.

It is difficult to draw any strong conclusions about the post-1979 period. The figures for the change in £M3 (last column) indicate that monetary growth was rapid, and overshot massively in 1980.<sup>25</sup> Interest rates were, in effect, negative in the early part of the period.<sup>26</sup> In common with other countries, they turned strongly positive as inflation came down later in the recession.

The apparent looseness of policy contrasts sharply, however, with the indication given by the exchange rate. It has already been noted that a conflict between internal and external financial indicators or implicit targets was a feature of 1977. From that period the real exchange rate rose massively by no less than 70 percent from 1976 to 1980. The major rises occurred in 1979 and 1980. Thus, the authorities faced contrary indications from internal and external indicators of the thrust of policy.<sup>27</sup> In the event, policy was judged tight despite the overshooting of domestic targets. Quite generally, the assessment of U.K. monetary policy as tight in the period 1979–82, and therefore a major reason for the recession experienced, depends crucially on the behaviour of the exchange rate. But a glaring gap remains in that there is no adequate quantification, or even explanation, of why the monetary policy should affect the exchange rate to such an extent. It is, in fact, equally plausible to see the authorities' reaction as offsetting the more relaxed attitude to monetary policy being a result of the obvious deflationary effects of the rise in sterling.

## **Fiscal Policy**

As noted, fiscal policy has been actively used as an instrument of economic management in the United Kingdom, an activism which has continued (though in different form) under the Medium-Term Financial Strategy. There are, however, some notable difficulties in assessing the stance of fiscal policy and its effects in the inflationary period under consideration, owing to alternative (and changing) views about its role. This section picks out some salient features of the debate over fiscal policy, public borrowing and debt in the United Kingdom — a debate which is also active in other countries.

Attention is focussed on summary indicators of fiscal stance, such as public borrowing, in nominal terms, as well as cyclically and inflation adjusted measures.<sup>28</sup> First, however, it is useful to review the forecasting record — at least as it appears from official projections. Since these forecasts are based, by and large, on traditional income/expenditure type models (such as the Treasury model), they provide some indication of how well or badly the traditional apparatus of quantitative economic analysis was working.<sup>29</sup> Table 8-2 collects together the official proj-

**TABLE 8-2 Budget Forecasts and Outturns, Change in Real GDP, 1969-84**

	Forecast (first half to first half year later)	Estimate (one year later)	Outturn
1969-70	2.9	3.1	2.0
1970-71	3.5	1.3	2.0
1971-72	3.1	3.9 <sup>a</sup>	2.1
1972-73	5.9 <sup>a</sup>	7.1 <sup>a</sup>	8.9
1973-74	4.5	-4.5 <sup>b</sup>	-2.3
1974-75	2.5 <sup>b</sup>	2.5 <sup>b</sup>	-0.7
1975-76	1.5	1.0	1.8
1976-77	4.0	1.0	3.0
1977-78	1.5	1.0	3.0
1978-79	3.0	1.0	2.2
1979-80	-1.0	-2.0	-0.7
1980-81	-1.5	-4.0	-3.8
1981-82	1.0	1.0	0.7
1982-83	2.0	1.4	2.4
1983-84	2.5		

*Source:* Financial Statement and Budget Report, relevant years.

a. Estimates for individual years affected by strikes.

b. Estimates affected by miners' strike and three-day week.

ections made at budget time (which may of course be shaded by official optimism/pessimism). Broadly, the record is not too bad.<sup>30</sup> One feature is the overestimation of the response of the economy in the early seventies, and then the subsequent overshooting in 1972/73. Major errors occurred in the first oil crisis period (which is not surprising owing to the unanticipated oil price jump, and then the confusion caused by strikes and the three-day week) and in 1980/81, when the extent of the recession was miscalculated. This underprediction (by about 2 percent of GDP) was a feature of most unofficial forecasts as well, though generally the recession, if not its extent, was anticipated.

Summary measures of the government deficit and the cyclically adjusted deficit are presented in Table 8-3. They show the massive turnaround in fiscal policy (from severe deflation to expansion) between 1970 and 1973 and the rise in the deficit in 1974, 1975 and 1976. The cyclically adjusted figures show that this latter rise was largely due to the operation of the automatic stabilizers, though it can be argued that fiscal policy remained relatively expansionary. (The difference between the OECD-based figures and those based on the IMF is largely due to an assumed reduction in supply potential, embodied in the IMF figures: that is, the implicitly "neutral" policy according to the IMF involved a tightening of the fiscal instruments in line with the reduced supply potential.)

TABLE 8-3 Government Financial Balance, 1970-82

	General Government Financial Balance	Cyclically Neutral Balance			Cyclically Adjusted Balance	
		I <sup>a</sup>	II <sup>b</sup>		I	II
1970	3.0	-0.5	—		3.5	—
1971	1.4	-0.7	—		2.1	—
1972	-1.3	-1.1	-1.1		-0.2	-0.2
1973	-2.7	0.1	0.6		-2.6	-3.3
1974	-3.8	-1.2	-0.3		-2.6	-3.5
1975	-4.6	-2.5	-1.8		-2.1	-2.8
1976	-4.9	-2.4	-1.7		-2.5	-3.2
1977	-3.2	-2.0	-1.8		-1.2	-1.4
1978	-4.2	-0.7	-1.1		-3.5	-3.1
1979	-3.2	-0.6	-0.9		-2.6	-2.3
1980	-3.3	-2.4	-2.1		-0.9	-1.2
1981	-2.6	-4.4	-3.5		1.8	0.9
1982	-1.7	-5.7	-3.8		4.0	2.1

Sources: Budget balance: economic trends. OECD adjustment: based on R.W.R. Price and J.-C. Chouraki, "Public Sector Deficits: Problems and Policy Implications," *OECD Occasional Studies* (June 1983), Table 5. IMF adjustment: based on *World Economic Outlooks* 1981, 1982 and 1983.

a. Based on OECD figures.

b. Based on IMF figures.

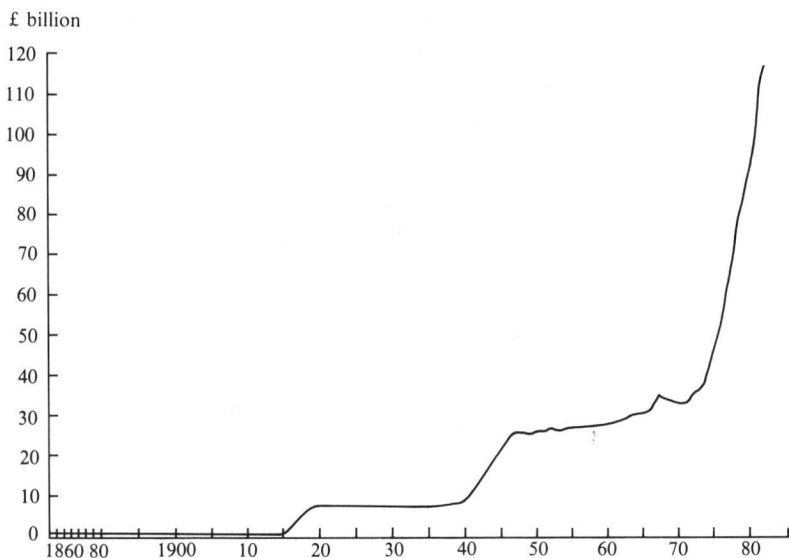
**TABLE 8-4 Inflation Adjustment, 1967–82**

	General Government Financial Balance	Inflation Adjustment	Inflation Adjusted Balance	Cyclically and Inflation Adjusted Balance	General Government Debt (proportion of GDP at market prices)
1967	−1.0	1.0	0.0	−0.3	63.2
1968	−0.5	3.0	2.5	2.4	59.7
1969	2.1	3.0	5.1	5.3	56.9
1970	3.0	3.5	6.5	7.0	50.3
1971	1.4	3.7	5.1	5.8	45.0
1972	−1.3	3.3	2.0	3.1	42.2
1973	−2.7	3.7	1.0	0.9	38.6
1974	−3.8	7.2	3.4	4.6	35.5
1975	−4.6	7.3	2.7	5.2	32.0
1976	−4.9	4.1	−0.8	1.6	33.2
1977	−3.2	4.1	0.9	2.9	32.8
1978	−4.2	2.6	−1.6	−0.9	31.2
1979	−3.2	4.7	1.5	2.1	30.1
1980	−3.3	3.4	0.1	2.5	27.9
1981	−2.6	3.3	0.7	5.1	29.6
1982	−1.7	1.9	0.2	5.9	26.5

Both sets of cyclically adjusted figures show a massive tightening of “discretionary” policy from 1979 to 1982; by no less than 6.5 percent of GDP on the OECD basis and 4.5 percent on the IMF basis. Recent changes in the IMF’s procedure for calculating the “cyclically neutral” budget balance<sup>31</sup> would have the effect, however, of increasing their estimate of fiscal tightening to be roughly in line with the OECD-based estimates.

The other adjustment to the deficit figures that can be made is for inflation, though it is a highly contentious issue as to whether such adjustments should be made in assessing fiscal policy. The basic rationale for such adjustment is one of accounting — the public sector gains during inflation from the “inflation tax” as the value of its financial liabilities is eroded by price rises. The inflation tax is not, however, included in the national accounts; hence, the figures for the public sector deficit are biased upward (and equivalently, the private sector is worse off than appears and is saving less).<sup>32</sup> Table 8-4 shows estimates of the “inflation adjustment” and of the inflation adjusted balance since 1967. The figures are based on the Bank of England method of adjustment,<sup>33</sup> which effectively applies the current rate of inflation to the stock of government debt outstanding.<sup>34</sup> It can be seen that the accounting adjustment for inflation has been large in the inflationary 1970s, and rose to over 7 percent of GDP in 1974 and 1975. With the rapid fall in inflation recently, the adjustment is now quantitatively much less important. Taken at face value, the inflation and cyclically adjusted figures indicate

**FIGURE 8-1 Central Government Debt, 1855-1982**

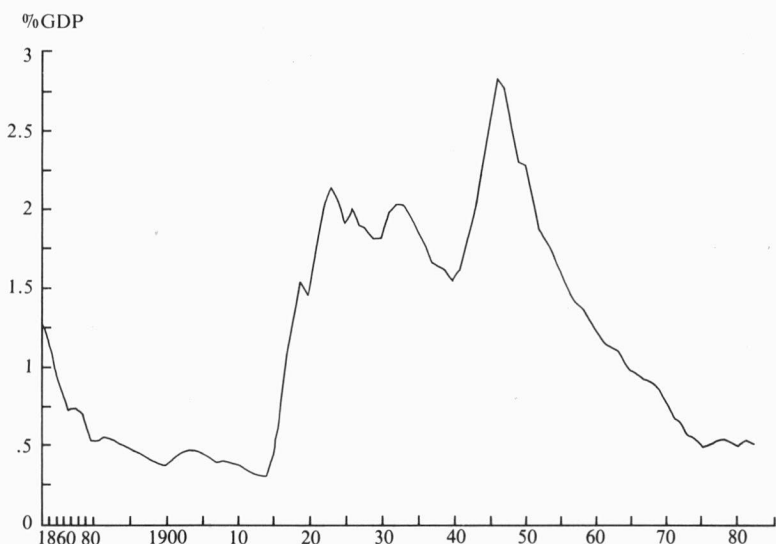


the tightness of policy in the early 1970s, in 1974/75, and in the most recent period. Policy appears much looser in 1973 and especially in 1978 (as inflation fell sharply whilst the nominal deficit rose). The recent tightening owes much more to the procedures of cyclical adjustment than inflation adjustment.

Another way to approach the same information is to look directly at the proportion of national debt to GDP (Table 8-4, column 5). This amounts to focussing on the effects of the deficits adjusted for both inflation and real growth.<sup>35</sup> The figures confirm that the general government debt has been in surplus over the period (growth corrected). The proportion of debt outstanding has declined. It was relatively constant at just over 30 percent of GDP between 1975 and 1979, before declining further since. (Use of potential as opposed to actual GDP would strengthen the apparent tightening from 1980 onward, by about a further 2 percent of GDP.) These figures need to be seen against longer-term trends in national debt in the United Kingdom (Figure 8-1). On the same basis, large "surpluses" were run during the 1950s and 1960s, reducing national debt as a proportion of GDP from two and three-quarter times GDP after World War II to the present moderate levels (Figure 8-2).<sup>36</sup>

The question of how the budget deficit should be measured, and the bearing of such measures on the assessment of fiscal stance, has been much debated in the United Kingdom. Inflation adjustment is considered first, before looking at the even more contentious issue of allowance for the cycle or recession.

**FIGURE 8-2 Ratio of Central Government Debt to GDP, 1855-1982**



Inflation adjustment is, as noted, basically a matter of accounting: but what do the accounts show, and what relevance do the accounting concepts have for economic behaviour? The problems can best be illustrated by considering the period around the first oil crisis, a period of major disequilibrium with unanticipated inflation and negative real interest rates. During that period, there is no doubt that the government gained and the private sector lost owing to inflation, an effect which was largely compensated for by the large nominal deficits of the time. What was happening, however, was that private sector asset holders lost owing to negative real interest rates (and capital losses) whilst the compensation via the public deficit accrued as income to others — those who gained from lower taxes or increased expenditure. There was a distributional effect within the private sector from the holders of national debt to others. A kind of capital levy was being balanced by transfer payments and reduced tax. It is likely that the behavioural effects would be different between the gainers and losers; or, alternatively, the wealth effects would not balance the income/expenditure effects of the transfer payments and reduced forces on income or output. Such a characterization suggests that the problem is familiar and is basically the same as that which arises with any use of the deficit as an indicator of stance — different components of expenditure and tax should be weighted differently, leading to concepts of the weighted budget balance. Ignoring inflation adjustment amounts, in effect, to imposing zero weight on the “inflation tax,” which would be valid if there were no behavioural

effects. Inflation adjustment can be seen as ascribing unit weight to the inflation tax in a given year, along with similar weighting for other components of the budget. Either procedure may be regarded as extreme.<sup>37</sup> Clearly, the assessment of fiscal stance in a period of inflationary disequilibrium is very hazardous, basically since empirical knowledge of the magnitude of wealth effects is so rudimentary.<sup>38</sup>

In more normal times, when inflation is anticipated and real interest rates nearer to equilibrium, conditions are much easier. In a fully adjusted economy, nominal interest payments rise with inflation (leaving real rates unaffected) and the interest flow in the national accounts balances the inflation tax. Holders of government debt lose owing to the “inflation tax” and gain from nominal interest rises. The two effects balance and there are no wealth effects.<sup>39</sup> There remains, however, an accounting problem in that the interest flow is included but the inflation tax is not. Inflation adjusted figures correct this problem by putting back an estimate of the inflation tax. Clearly, in an adapted world, there is a much stronger presumption that the inflation tax and the increased nominal interest flow will balance (though, in principle, wealth holders could have different attitudes to the two components). Returning to the analogy of the weighted budget deficit, the increased nominal interest flow and the inflation tax could be expected to have equal weights whereas the unadjusted figures assign weights of one and zero to the interest flow and the inflation tax, respectively. Adjustment could be made either by including the “inflation tax” or by excluding the effect of inflation on nominal interest. This latter solution justifies an alternative inflation adjustment — by excluding the excess of interest payments on national debt over and above some assumed “real” rate.<sup>40</sup>

Thus it would seem that for economies that are (approximately) adapted to inflation, the inflation adjusted figures are vastly to be preferred. There is still a matter of interpretation, however, when policy is directed toward reducing inflation.

The inflation adjusted position can be taken as indicating how tight or loose fiscal policy is against the current rate of inflation:<sup>41</sup> if it is in surplus, or moves toward surplus, the fiscal position is non-accommodating or becoming more non-accommodating. Objections to the use of the adjusted budget balance (or PSBR) in the United Kingdom have, however, focussed on something rather different — its inappropriateness as a target for the public sector. The objection is the same as that against formulating monetary targets in real terms: that that would imply a willingness to accommodate increases in inflation. This is perfectly reasonable, but does not constitute an argument against the inflation adjusted position as a measure of fiscal tightness, any more than setting nominal targets for money implies that the real money supply, or the money/GDP ratio, cannot be used as an indication of monetary



tightness during adjustment. It does suggest, however, that the authorities may be interested in another concept: the budget balance adjusted for target inflation. If the target were zero, this would amount to focussing on the unadjusted deficit, which then becomes an indicator of how much inflation is presently being accommodated. Thus, in a period when fiscal policy is being used as a counter inflation tool, both measures are interesting. The inflation adjusted measure indicates the extent to which policy is non-accommodating against the present rate of inflation; the unadjusted measure is an indicator of how much inflation is being accommodated.<sup>42</sup> In equilibrium, of course, when actual and target rates of inflation coincide, the two measures would converge.<sup>43</sup>

In looking at the United Kingdom's position over the 1970s and 1980s it has been seen that the budget position (general government) has typically been in nominal deficit and inflation adjusted surplus. What this suggests<sup>44</sup> is that fiscal policy has been quite tight against inflation (particularly in 1974 and 1975) but that a substantial amount of inflation has nevertheless been accommodated. This seems in accord with common-sense assessments. (Assessment of the early 1970s, when interest rates were negative, is subject to the considerable difficulties outlined above.) Policy relaxed in the late 1970s as inflation came down. Since 1979 the inflation adjusted position has been approximately balanced. A similar picture would result from looking directly at figures for national debt. In nominal terms it has risen (accommodating inflation and growth); relative to GDP it has tended to decline.

Cyclical or recession adjustment is an even more contentious political issue. The procedure adjusts for the automatic effects of recession against some assumed trend of the economy. The difficulty is that recession effects may not be temporary, cyclical or reversible. There is no dispute that the instruments of fiscal policy were massively tightened in the recent period since 1979. The question is whether that result was desirable. One possible reason why it might have been is that supply potential dropped equivalently over the period (so that a neutral policy was to match the reduction by overriding the automatic stabilizers). Another would be if the natural rate of unemployment (or NAIRU) was thought to have risen at that time, which would also justify policy tightening. In either case, fiscal policy would not be assessed as tight against the step down in supply potential that occurred; and policy now (on the assumption of continuing unemployment at three million plus) would be assessed as approximately neutral. Against that, the conventional demand-management view would be that deficits should be allowed to rise in an offsetting way in recession and that the stance of policy should be assessed against some norm of full (or better, average) utilization of labour and capital — for example, at approximately the trend level in 1978/79 which is built into both IMF and OECD figures for

the cyclically neutral position. Moreover, if the economy recovered, then the adjusted figures show that vast surpluses would result unless taxes were reduced or expenditures increased.

Thus, the cyclically adjusted figures are easy to interpret. They indicate a large fiscal tightening in the United Kingdom from 1979 to 1982. The contentious issue is over whether that result was desirable.

There is a final problem of assessing recent fiscal policy in the United Kingdom that needs to be brought out: the influence of oil price rises and of changes in the structure of taxation. In 1973 the international oil impact imposed a swing on the United Kingdom's balance of payments (current account) which had a counterpart in a deterioration in the private sector's financial position, not balanced by the public sector.<sup>45</sup> If, in looking at fiscal policy, attention is focussed on the private sector rather than the public sector (and it should be if it is private sector economic behaviour that is under examination), then the surplus/deficit position of the private sector also reflects the external situation and should be computed as (the negative of) the public sector surplus minus the balance-of-payments deficit. In 1973 and 1974 fiscal stance assessed this way would be tighter than indicated by the public sector deficit to the extent of the oil impact.<sup>46</sup>

Around 1980, however, there was no balance-of-payments impact owing to the second rise in oil prices, since the United Kingdom was approximately self-sufficient. Domestic prices of oil did, however, rise in line with price rises in the world economy. Theoretically, since most of the increased rent (effectively due to increased taxation on oil) accrued to the U.K. government, a neutral policy would have been to lower other taxes (e.g., VAT) in a compensating way. This was not done, so that the oil impact on the non-oil private sector was as large as in other countries, and so was the implied fiscal tightening.

In practice, the picture was complicated by lags, in that oil producers could make use of various allowances, and the actual increase in revenue to the public sector was substantially delayed — by three to four years. The surplus due to oil thus accrued temporarily to the oil sector. With a fixed policy for the flow of public borrowing (under the MTFs), this meant an uneven impact on the non-oil private sector — high initially, but then reducing as the tax revenues came through. Allowance for this factor would markedly increase the apparent degree of fiscal tightening in 1979 and 1980 (by 2–3 percent of GDP), and lower it later (when in theory there was room for “fiscal adjustment” under the MTFs).<sup>47</sup> The developing recession, however, meant that (against the declining targets for public borrowing) there was little room for fiscal adjustment when taxes did accrue, since by that time unemployment benefit and other recession-induced effects were having a major effect on the deficit. It should be noted that a non-offsetting policy meant that the oil impact was also directly price raising in the United Kingdom, in spite of self-

sufficiency. The price rises, unless subsequently reversed as taxes came through, implied a further tightening (given a fixed policy for public borrowing) of the inflation adjusted deficit (which, however, unlike the oil impact itself, is captured by the inflation adjusted figures).

At the same time as the oil impact in 1979, there was a major change in the structure of taxation — from direct to indirect. This move (which was regarded as highly dangerous at the time by most outside commentators) raised the consumer price level directly by 3–4 percent. Since the tax changes roughly balanced, the effects on the public deficit were minor. The rise in the price level, which soon fed into wage rises as well, effectively tightened the inflation adjusted stance of the budget.

The main conclusion of this section is that fiscal policy since 1979 can be seen as very tight and tightening. On a recession adjusted basis it tightened by upward of 6 percent of GDP. Allowance for oil would increase the initial tightening in 1979/80 very substantially, altering the time profile (but with much less effect on the ultimate extent). Much of the impact appears to have been concentrated on the financial position of companies, especially those exposed to international competition as the exchange rate rose. Fiscal policy emerges as a principal reason for the recession experienced, and, since the changes raised prices, for inflation.

## **The Balance between Monetary and Fiscal Policy**

As noted, there has been much concern under the MTFs that monetary and fiscal policies should be “consistent” with each other.<sup>48</sup> How should consistency be defined, and what are the consequences of inconsistency?

An obvious starting point is to look separately at the stance of monetary and fiscal policy and to assess their relative tightness. This has been done above, and there is little doubt that, according to conventional indicators, both monetary and fiscal policy have been directed against inflation; to that extent they have been consistent. Further, if allowance is made for recession effects on the deficit, fiscal policy appears as markedly tighter than monetary policy. Even in terms of the MTFs, the fiscal “targets” (or projections) have been much more nearly achieved than the monetary targets, in spite of the induced effects of recession. Table 8-5 shows the projections set out in the 1980 Financial Statement and Budget Report. Taking the monetary targets first, there was a massive overshoot in the first year of the MTFs, 1980/81. The 6–10 percent target range was, however, retained for the next year, but rebased to incorporate the previous overshoot. In spite of this adjustment, a further overshoot occurred, and in 1982/83 concentration on a single monetary target was, in effect, abandoned. A new range of 8–12 percent was adopted which was to apply to £M1 and PSL2 as well as £M3. In 1983/84 the range was 7–11 percent. On the fiscal side there was a large

**TABLE 8-5 Financial Projections, 1978-84**

	Projected PSBR/GDP (%)	Target £M3 (% change)	Actual PSBR/GDP (%)	Actual £M3 (% change)
1978/79	5½	8-12	3.5	11.8
1979/80	4¾	7-11	5.1	11.0
1980/81	3¾	7-11	5.8	19.6
1981/82	3	6-10	3.4	13.0
1982/83	2¼	5-9	3.2	11.2
1983/84	1½	4-8		

*Source:* Financial Statement and Budget Report, 1980.

overshoot in 1980/81 (target £8.5 billion, outturn £13.6 billion), much of which was due to the unanticipated severity of the recession. Though some allowance was made for this in projecting a PSBR for 1981/82 of 4.75 percent of GDP in the 1981 budget (compare the original projection of 3 percent), the 1981 budget was, in conventional terms, substantially deflationary to reduce the PSBR.

Consistency can also be looked at in terms of the "Portfolio Balance" approach to public borrowing,<sup>49</sup> which basically focusses on a supposed equilibrium relationship between national debt and money in the long run. As has been seen, movements of national debt and money have been broadly consistent with each other from about the mid-1970s on, though with some evidence of relative fiscal tightening. There is a great deal of difficulty, however, about what the assumed normal long-run relationship should be — particularly since the empirical evidence suggests vast changes in the relationship between national debt, GDP, and money over the long run, and considerable year-to-year variation. (Moreover, there is a serious question as to whether the relationship should or should not be allowed to vary with recession, with national debt rising in an offsetting way.) The portfolio balance relationship (if it exists even in "equilibrium") would imply a relationship between monetary growth and the growth of national debt, which in turn would imply a relationship between the nominal deficit of the public sector and the rate of growth of the money supply. Such a relationship is used in the Liverpool model,<sup>50</sup> where, in effect, announcements for the PSBR/GDP ratio are announcements about the rate of growth of the money supply.<sup>51</sup>

Whilst monetary and fiscal policy may look broadly consistent over recent years, the rationale behind the posited links is very obscure and has never properly been spelt out. The focus on consistency and "equilibrium" conceals a multitude of possible links and interactions: different views of the main interactions lead to widely different implications if fiscal policy varies relative to monetary policy. The interesting questions arise in "disequilibrium," or when monetary and fiscal policy change relative to each other.

The standard government line is that excessive public borrowing leads either to "crowding out" (cumulatively if the deficit persists) or to inflation.<sup>52</sup> This combination of views is commonplace in OECD countries, but is in fact very peculiar. The statement can be seen as implying that a fiscal expansion is either deflationary or inflationary, a rather extreme form of hedging one's bets. (Some even manage to believe both propositions simultaneously.)

The Treasury has attempted to explain the interaction between public borrowing, interest rates and the money supply (the "triangular relationship") by wealth effects on the demand for money.<sup>53</sup> Public borrowing swells national debt, increasing financial wealth, raising the demand for bank deposits. Against a fixed money supply this would raise interest rates, leading to crowding out, directly or via the exchange rate. Since no other interactions are put in (in particular, wealth or flow effects on expenditure are suppressed), this easily leads to the view that fiscal policy is *perverse*; a fiscal relaxation *depresses* activity. However, if the increased demand for money is accommodated,  $M_3$  rises. What is not clear is why this should matter (apart from the obvious embarrassment of overshooting targets), since demand and supply rise together. It is possible, but hardly plausible, to argue that the private sector does not know what is going on and that expectations of inflation (and hence actual inflation) rise. Generally, the approach has the somewhat embarrassing implication that, against fixed targets for the money supply, a sufficiently irresponsible fiscal policy, with large deficits, would be disinflationary.

This result has led some authors to look for a connection between public borrowing (and national debt) and the *supply* of money, which could more plausibly be regarded as inflationary.<sup>54</sup> In practice, it is very hard to believe that the amount of national debt outstanding has these supply effects, especially as U.K. banks hold little short-term gilt-edged stock.<sup>55</sup>

Both these approaches have the feature of leaving out of account the direct effects of fiscal policy on activity or prices. If these effects were included, we would be back in the familiar territory of the "crowding out" debate; a fiscal expansion, especially if accommodated by the banking system, would directly raise prices and/or activity in the normal way. The demand for money would be affected indirectly via nominal incomes, as well as directly via wealth effects. It is not at all original to remark that many controversies in economics arise not from what people put into the analysis but from what is left out. In the United Kingdom, attempts to see fiscal policy as working exclusively via money has led to a very confused debate, and to some odd policy presumptions. (The major models include very substantial effects from fiscal policy directly on to activity and/or prices.)<sup>56</sup>

During a period when both monetary and fiscal instruments are being

used against inflation in a consistent way, questions of the links between them are suppressed. It is possible to explain events as due to monetary policy, fiscal policy, or fiscal policy working via money (though there is some difficulty in the United Kingdom in explaining recession and disinflation as due to monetary tightness unless monetary policy is credited with (blamed for) the rise in the real exchange rate). Effectively, monetary and fiscal policy can be seen as a single instrument.<sup>57</sup> The disputes rise to the surface when fiscal policy is varied relative to monetary policy. In a recovery period, one school would see a fiscal relaxation as stimulating even if monetary policy remained non-accommodating; others would see it as having perverse effects. The issue is basically empirical, but comparison of model properties in this important area is not particularly helpful since so many of the relevant interactions (or exclusions) are imposed *a priori*.

An issue which has received much less attention than it deserves is what effect a “consistent” monetary and fiscal policy against inflation would be expected to have on the exchange rate. If consistency is seen, for convenience, as implying a constant relationship between stocks of national debt and of money (justified, for example, by portfolio balance considerations), it may be interpreted as focussing on a model with a single (composite) financial asset.<sup>58</sup> Financial tightening (via a lower PSBR and monetary control) could be expected in equilibrium (or perhaps in the long term) to affect inflation and leave the real exchange rate unaltered. In an adjustment period, however, considerable overshoot could occur, owing to current account effects (induced by recession), high nominal interest rates initially, and expectational effects generally. There may be a clue here to some of the factors behind the United Kingdom’s experiences of a rising real exchange rate.<sup>59</sup>

Within such a view, which sees a fiscal tightening combined with a “consistent” monetary policy as tending to raise the exchange rate, there is room for “inconsistent” policies to have very different effects. In particular, expansionary fiscal policy, if it led to the actuality or expectation of relative monetary tightening and high interest rates, could lead to upward pressure on the exchange rate in spite of current account deficits and expectations of inflation.

## **Accounting for Recession and its Effects**

There have been a number of formal attempts to account for the scale of recession in the United Kingdom using one or other of the econometric models that are in common use.<sup>60</sup> Whilst there are great difficulties in defining an appropriate counter-factual base, and in interpreting the results (which may show more about the adequacy of the models than about the causes of recession), the results have been quite illuminating. No more than a sketch can be attempted here, based on Budd and Ellis (1983), which uses

the LBS model, and Artis et al. (1984), which compares the results from the Treasury and National Institute models (Table 8-6).

A feature of practically all simulations is that world recession accounts for relatively little of the United Kingdom's fall in GDP (the actual fall was somewhere between 6 and 8 percent relative to trend). By the fourth quarter of 1982 the world recession per se accounts for between 1.25 percent fall in GDP (Treasury model) and 3 percent (LBS model), with the National Institute at 2 percent. The timing in every case suggests that the effects came after the main downward movement in the United Kingdom; that is, world events, whilst they intensified the output fall, did not cause the recession. Other common features are the large upward effects on the price level owing to the change from direct to indirect taxes in 1979; initially all three models rise between 3 and 4 percent and, while the CBS and NIESR stimulations continue to build up, the Treasury model, after having risen to nearly 5 percent, starts to fall, since it has a more responsive price/wage sector built into it. In the LBS simulations (which are the only ones to consider a counterfactual with no oil price rise) the total price-raising effect is 11 percent from oil and the VAT change by the end of 1982. The models all indicate the importance of exchange-rate movements in magnifying the effects of domestic policy (and in the case of LBS, oil price rises). None of them track the rise in sterling, however, so that the linkages may have been a good deal stronger than the simulations suggest. Differences between the models, particularly in the wage/price nexus, are very important.

A general conclusion is that though all the models show strong effects from policy over the period in raising prices and inducing recession, an understanding of some of the processes involved remains rudimentary. In particular, much work remains to be done on exchange-rate linkages and on financial and supply-side effects in manufacturing. A principal feature of the period was the financial squeeze on exposed sectors of industry, as wages and exchange rates rose against continuing tight policies: the reaction was sudden and severe. Such effects are hard to capture, however, first because exchange-rate equations performed so poorly, and second because financial effects seem to come into play non-linearly when some threshold is passed.<sup>61</sup>

Turning to the effects of recession, some interesting features emerge. First, the downward effects on inflation (after the initial upsurge) were generally rather stronger than anticipated on the basis of previously estimated relationships, though there is still much dispute over the mechanisms involved (e.g., over the importance of exchange rate effects as compared with direct Phillips Curve-type effects). Inflation came down to about 5 percent. Second, productivity rose, or rather fell less than would be expected on the basis of Okun's Law.<sup>62</sup> The obverse of the relatively good productivity performance in manufacturing was the exceptional rise in unemployment to 13 percent. The reasons why



TABLE 8-6 Model Simulations to Explain the Recession

Quarter	Actual Shortfall of GDP (percent)	Flexible Exchange Rate			
		Fixed Exchange Rate		Predicted Shortfall	World Trade <sup>a</sup>
		Predicted Shortfall	Policy		
<i>National Institute</i>					
1979.4	-0.8	0.2	-0.1	—	-0.1
1980.4	4.3	1.1	1.7	1.3	0.4
1981.4	6.9	2.8	4.1	3.4	0.8
1982.4	6.3	4.5	6.7	4.4	2.3
<i>HM Treasury</i>					
1971.4	-0.8	0.6	1.2	1.4	-0.3
1980.4	5.3	3.3	4.6	4.2	0.4
1981.4	7.0	4.9	6.4	5.9	0.5
1982.4	6.8	3.8	4.0	2.9	1.2
<b>Flexible Exchange Rate</b>					
	Actual Shortfall of GDP	Predicted Shortfall	Policy	World	
				Output	Oil <sup>b</sup>
<i>LBS</i>					
1979.4	-1.0	0.6	0.3	-0.1	0.4
1980.4	6.0	3.3	1.0	0.7	1.6
1981.4	6.9	5.4	1.7	1.2	2.5
1982.4	7.8	7.8	2.5	3.2	2.1

Sources: M.J. Artis, R. Bladen-Hovell, E. Karakitsos and B. Divolatzky, "The Effects of Economic Policy, 1979-80," *National Institute Economic Review* (May 1984): 54-67; A. Budd and R. Ellis, "Fiscal Policy: The Price of Energy and the UK Recession," Discussion Paper 107 London: London Business School, 1983.

Notes: Studies not strictly comparable.

a. Defined as a residual; total predicted minus effects of monetary and fiscal policy.

b. Defined as a residual; total predicted minus effects of policy and effects of world output. In the original study the oil price effects are larger, since they include an effect on world output. Total oil price effects rose to 3.6 percent by 1982. 4. The figures above are only approximate, and include interaction effects.



Okun's Law was "overridden" are the subject of much debate.<sup>63</sup> It obviously occurred as a result of "shake-outs" of labour from the hard hit manufacturing sector. The question is whether this outcome reflected a permanent change in attitudes, which might be expected to change the trend, or once-and-for-all effects owing to the particularly severe recession. There is some evidence that a substantial part of the "exceptional" productivity performance can be accounted for by the behaviour of a few state industries, particularly British Steel and British Leyland.

As the recession developed, the slant of government rhetoric changed. The early optimism that control of the money supply would bring down inflation with relatively small costs gave way to the argument that heavy recession was necessary to bring down inflation. The emphasis changed to the supply side, with ministers pointing to the supposedly beneficial effects on industrial relations, workplace attitudes, productivity and competitiveness. The success of the counter-inflation strategy continued to be ascribed to monetary policy, rather than to the direct effects of fiscal policy or the exchange-rate rises.

### **The Present Situation**

A moderate recovery at about 2–2 1/2 percent per annum started in 1981 or 1982 (depending on which statistics are emphasized). The turnaround owed, as usual, much to the stock-building cycle (an end of destocking), as well as to the effective loosening of monetary and fiscal policies as inflation came down, a fall in the exchange rate, better prospects for world trade, and some fiscal and monetary relaxation in 1983. The recovery has been largely consumer-led, with a large fall in the savings ratio. Part of this may reflect the wealth effects of declining inflation, but the proximate cause was a major expansion of consumer borrowing as credit restrictions were relaxed and as borrowing from building societies expanded markedly (much of the increased borrowing for house purchase or improvement has "leaked" into consumer demand). A large part of the increased domestic demand has been satisfied from abroad, and the major current account surpluses of the recession period have given way to approximate balance — in spite of North Sea oil which is at or near its peak. Manufacturing has gained much less, though there are some signs that investment may be responding. Unemployment reached a plateau, but has recently started to rise again. The recovery (such as it is) is, as in other countries, clearly threatened by high real interest rates.

The problems that could potentially arise in the recovery period are mostly familiar. There is particular interest, however, in the operation of MTFs. (Although somewhat loosened, the MTFs was continued in the 1984 budget.) The first question is, evidently, whether a recovery is sustainable under continuing financial constraints and with an uncompetitive exchange rate (except against the dollar). But an even more

important question is how it would work if recovery is less or more than anticipated. As has been seen, at high employment the fiscal deficit would greatly shrink (becoming a surplus). What this tends to suggest is that fiscal relaxations would accompany any spontaneous upturn, threatening to create the kind of instability that occurred in the downswing. Moreover, if the recovery peters out, the fiscal instruments could be tightened.

This analysis of the dangers contrasts with the view sometimes expressed that a fiscal tightening would actually aid recovery via effects on interest rates, the exchange rate and money. Thus the question of how fiscal policy actually operates is of greatest importance. Unfortunately, the confusion over the issue is, as noted, extreme (and extends to financial markets, conditioning expectational responses). The lack of a theoretically coherent and empirically robust analytical framework emerges as one of the principal problems in the United Kingdom.

Finally, there is little evidence that the MTFs has had any special effects other than those that operate through massive recession and a rise in the exchange rate. The effects on industry and inflation are perhaps far from surprising. Any recovery, whether induced by policy or occurring spontaneously, could revive inflation, and there are already signs that pent-up frustrations and problems of differentials in the labour market could lead to a re-emergence of all the old problems of the British economy.

## **Conclusions**

Any assessment of the United Kingdom over the last decade or so must depend heavily on the underlying view of how the economy functions as well as on value judgments about the weight that should be given to the objective of curbing inflation.

The general thrust of this paper has been to suggest that most of the developments can be perfectly well understood within a fairly conventional demand-management type of framework, with monetary, fiscal and exchange rate policies playing their traditional roles. From that point of view, policy falls into two phases since 1974. During the first, under Labour governments, the main weight of counter-inflation policy fell on consensus-type incomes policy, with monetary and fiscal policy playing a supporting rôle. During the second, "corporatist" strategies were abandoned in favour of a more market-oriented approach, and the full weight of counter-inflation policy fell on the monetary and fiscal instruments. Fiscal deflation, in particular, was applied in a draconian fashion, with the results that any demand manager schooled in the 1960s would have expected.

Opinions obviously differ about what would have happened if "corporatist" strategies had been continued after 1979. Incomes policy was

clearly breaking down, but the degree of wage inflation that would have resulted is unknowable. What is clear is that policy was coming to rely more and more on financial control, and the attempt to benefit the real economy via a low exchange rate had been abandoned. With the breakdown in incomes policy, many "demand managers" were reluctantly concluding that monetary and fiscal policies would have to bear the brunt of the struggle against inflation, though few had any illusions about the probable costs.

This suggests that the "Thatcher experiment" should be seen as part of a continuing process of the diversion of the demand-management instruments toward the control of inflation, though the extent of deflation was unprecedented and (probably) largely unintended. The new feature was monetarism (which surely does not apply in any simple form to the United Kingdom) and then the MTFS, which reintroduced fiscal policy as a centre-piece of the strategy via a posited connection between public borrowing and money.

Again, from the demand managers' viewpoint, the MTFS imposed a particularly severe fiscal deflation as the automatic stabilizers were overridden. This can be regarded as desirable in allowing a sufficiently strong "downward management of demand" (Fforde, 1983) or as a major and possibly unintended error arising from the excessive rigidity of the MTFS and a misunderstanding of the underlying economics. Figures for the budget deficit (cyclically and/or inflation adjusted), as well as model simulations, are fully consistent with the view that fiscal policy was a major reason for recession, and allowance for the fiscal impact of oil price rises strengthens the initial impact effects.

In fact, fiscal policy impacts also account for a major initial rise in the price level owing to the change in VAT and to the non-offset of the oil impact. Price rises in turn led quickly into wage inflation. Given the policies followed, it is hardly surprising that the United Kingdom had an inflationary recession in spite of self-sufficiency in oil.

It is clear that the fiscal squeeze was administered in a particularly unfortunate price-raising way (later the main effect was on public investment, which was cut dramatically). Raising prices via tax increases to deflate the economy and cut inflation is not self-evidently crazy in all circumstances, but it does make the task harder if expectations are affected and wages react.

In the process of deflation, the real exchange rate rose massively, concentrating the squeeze on exposed sectors of industry and leading to a 20 percent decline in manufacturing production. A major problem is that adequate explanations of the rise do not exist (many of the models in use at the time were basically international monetarist). It seems likely that tight fiscal policies were part of the story. (Often tight fiscal policies are seen as exchange rate lowering via interest-rate effects. The textbook mechanisms, however, rely on a relative tightening of fiscal policy

and often ignore direct fiscal effects working, for example, through the current account.) The exchange-rate rise was allowed to happen, though it is possible that it led to some monetary relaxation (though not fiscal relaxation).

If the general lines of this interpretation are accepted, then there may be some broad lessons. The first is that in the absence of consensus policies, the demand-management instruments may have to be diverted to inflation control at possibly heavy cost. That was always the argument for income policies. Second, the operation of the MTFS clearly illustrates the dangers of a concentration on domestic financial targets in an open economy with a floating exchange rate. The dangers are particularly acute if the relevant interactions are unknown or uncertain. They are fearsome if at the same time the economy is subject to major change, such as the coming on stream of North Sea oil.

Within the MTFS itself, the major danger is that it leads to instability not just in the downswing (when the stabilizers were offset) but potentially in an upswing as well. The objective of financial control imposes a reaction function on the authorities which, arguably, is appropriate for price shocks and variations in inflation. But real changes are magnified.

Finally, the credibility of the strategy was probably enhanced by the MTFS. But the targets, especially for money, were missed. Ultimately, the credibility of a strategy depends on experience of it — particularly the observed willingness of the authorities to impose, or tolerate, adverse real developments.

Needless to say, the government would not see the MTFS as a disguised strategy of demand deflation. But there are some notable difficulties in explaining recent U.K. history in terms of the monetarist paradigms. A key aspect of government thinking is that public borrowing affects the economy via money. This link has never been made clear, and the debate over public borrowing, debt and money is extremely confused. That, at least, is a problem the United Kingdom shares with other OECD countries. Thus, the rationale for the MTFS, if it is not disguised demand management, rests on extremely shaky foundations. This is very unsatisfactory and could lead to major policy errors in the future.

## Notes

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1. Or even earlier if the maintenance of the exchange rate is seen as a policy against inflation.
2. See the illuminating discussion by Fforde (1983).
3. Introduced in the budget of 1980. See Financial Statement and Budget Report.
4. A term used, for example, by the financial secretary to the Treasury, Lawson (1980).
5. The government has generally avoided calling their projections for the PSBR "targets."
6. See also Buiter and Miller (1981), who apply a Dornbusch-type overshooting model to the experience of the United Kingdom.
7. Which was unintended, and arose because of serious underestimation of the extent to which credit flows had previously been rationed.
8. In principle, the knowledge of future production would be expected to affect policy (especially toward the balance of payments) and expectations in financial markets. Presence of North Sea oil may have been a factor behind the unexpected strength of sterling in 1974; but such foresight is difficult to square with the apparently myopic behaviour of foreign exchange markets later, and especially during the sterling crisis of 1976.
9. One reason commonly cited for the very poor inflation response by the United Kingdom is wage indexation — the "Threshold Agreements" — which were introduced in the summer of 1973 but allowed to continue until the autumn of 1974.
10. Average earnings, third quarter 1977 on a year earlier. Wage rates came down even further, to about 5 percent, over the same period.
11. By Malcolm Crawford.
12. See Haache and Townend (1981).
13. Governor of the Bank of England (1978); Fforde (1983).
14. A view put forward (in the international context) in the McCracken Report (McCracken et al., 1977). See also Price and Chouraqui (1983).
15. Growth in the United Kingdom picked up in 1978/79. In part this was due to the previous fall in inflation behind wages, so that real incomes rose. It also reflected official intentions: most European economies improved following the Bonn Summit of 1978 when modest reflationary measures were agreed.
16. Though the public sector comparability study set up under Labour (the Clegg Awards) was honoured by the new government, substantially boosting wage inflation and public expenditure in 1980.
17. Though £M3 is still the most important target variable, other broader and narrower aggregates are now subject to the target ranges — £M1 and PSL2. Very recently emphasis has also started to be placed on MO.
18. The basic argument against reserve ratio control in the United Kingdom is that any shortage of assets leads to banks bidding against each other for deposits, raising interbank money market rates (banks are liability managers). Thus the shortage appears as a shortage of cash which can be relieved by the authorities — for example, by discounting Treasury or Commercial Bills.
19. The effects, especially on the exchange rate, would not be invariant with respect to the change in regime which occurred in 1977 (when the exchange rate was uncapped), nor the regime change in 1979/80.
20. Particularly owing to a tendency, especially in the 1980s, for more intermediation to occur through the banking system (e.g., the entry of the clearing banks into the market for home loans in the 1980s) (Fforde, 1983).

21. Particularly due to the operation of the "Supplementary Special Deposits Scheme" — the "Corset" — which led to a jump in £M3 when removed in 1980 of unforeseen magnitude. The corset became ineffective after the removal of exchange controls.
22. The public sector's contribution to money is the PSBR — sales of gilt-edged stock outside the banking system. In practice, the PSBR has been fully funded most years or even "overfunded" — draining the banking system of Treasury Bills or increasing the authorities' holdings of commercial paper.
23. Nevertheless, as the expansion occurred as a result of reduced "rationing" in financial markets, combined with low (real) interest rates, there is a question as to whether the expansionary effects should be seen in terms of easy credit or an excessive stock of relatively liquid £M3 balances. As far as any influence on inflation is concerned, the picture is complicated by the international commodity price boom, oil prices, and wage reactions.
24. Computed as nominal interest rates corrected for the rate of inflation over the next year.
25. A substantial portion of this growth was due to reintermediation following the removal of the corset. Allowance for this would have the effect of making policy look less tight in 1979, and somewhat more under control in 1980.
26. If the current, as opposed to the future (one year ahead), rate of inflation were used, then interest rates in 1980 would appear negative.
27. Public borrowing also overshot substantially in 1980, in part owing to the recession.
28. Concentration on such imperfect measures may, in part, be justified by the attention that is given to them in public debate and because they are less "model specific" than simulation runs. The difference is one of degree, however, and summary measures can only be interpreted against some underlying implicit model or models.
29. Such comparisons are, moreover, relatively immune to the criticism (which applies, for example, to estimates of the stabilization achieved) that the authorities' objectives may have been changing from year to year — for example, swings between the objective of internal and external balance, so characteristic of the 1950s and 1960s.
30. Particularly given the way in which estimates of the outturn have changed as more information became available, and as figures were revised (including rebasing).
31. Reported in IMF World Economic Outlook, 1983. Rises in payments for unemployment benefit and social security are now treated as "cyclically neutral" which would raise the "cyclically neutral balance" and tighten the apparent stance of policy against their "norm."
32. It is important to distinguish the accounting point from the question of whether the public sector actually gains from inflation. In particular, in a fully adapted economy, nominal interest increases would compensate for the "inflation tax" and the public sector would neither gain nor lose. The public deficit would still be mismeasured, however, as it would include debt interest but exclude the inflation tax.
33. See Taylor and Threadgold (1979) for an exposition of the method.
34. Other methods of inflation adjustment are possible. In particular, figures based on the market value of outstanding debt give a somewhat different profile (Miller, 1982), though the order of magnitude of the adjustment remains unchanged. Application of an assumed long-run "real" interest rate in computing the adjustment gives very much lower figures for the period 1972–76, since ex post real interest rates were strongly negative (Table 8-1). In the 1979–82 period such a procedure makes relatively little difference. It can be argued that such measures understate the effects of unanticipated capital losses which were large and systematic in the earlier period. For discussion of inflation adjustment see Miller and Babbs (1983), Buiter (1983), and Buiter and Miller (1983). For a comprehensive study of the public sector's position see Ashworth, Hills, and Morris (1984).
35. Suppose a "neutral" baseline is defined as a constant proportion of national debt to GDP:

$$\begin{aligned}
 N &= k PY \\
 \Delta N &= k (\dot{p} + \dot{y}) \\
 PY
 \end{aligned}$$

where  $N$  = National Debt  
 $PY$  = nominal GDP

Inflation adjustment amounts to "correcting" the actual proportional deficit for the term ( $k\dot{p}$ ) — that is, the rate of inflation times the debt/income ratio. The baseline of constant proportional debt involves adjusting for growth as well via the term ( $k\dot{y}$ ).

36. Inevitably, in this area, different definitions give rather different numbers, and the figures are not strictly comparable. Moreover, a proper analysis of the public sector position should take into account other changes, such as real asset holdings and North Sea oil. See Ashworth, Hills, and Morris (1984).
37. The procedure suggested by Miller (1982) of computing *ex ante* Hicksian income by applying a national constant real interest rate to the costs of debt service may be seen as ignoring unanticipated capital gains/ losses owing to *ex post* rates of return differing from *ex ante* expectations.
38. Wealth effects and inflation adjustment effects are frequently confused. The former is a matter of behaviour, the latter of accounting. They come together in a comprehensive permanent income framework, so long as true permanent income is the relevant determinant of behaviour (which is unlikely owing to liquidity and other constraints). In such a framework there is, moreover, a question as to whether government debt should be regarded as wealth at all (Barro, 1974).
39. In practice, the interaction of nominal interest rates and the tax system may mean that neutrality is impossible. Furthermore, when inflation changes, capital gains and losses on longer-term debt occur and should be taken into account.
40. In disequilibrium this tends to give a smaller adjustment, since interest payments adapt slowly. This is just another way of saying that *ex post* real interest rates are negative. Again it amounts to ignoring the "holding losses" owing to negative real interest rates: weighting them at zero. Thus it is similar to the procedure outlined by Miller (1982). By 1982 there was, in fact, a fairly good correlation between the inflation adjustment obtained directly and that obtained by excluding debt interest payments (about some level) for most OECD countries.
41. Strictly, some norm of neutrality for the budget deficit, generally different from zero, needs to be defined. Year-to-year comparisons suppress the dependence on the implicit norm.
42. For an analysis of U.K. budgetary policy in terms of the budget balance computed at target, rather than actual rates of inflation, see Miller (1982).
43. In principle, measures could be derived (subject to considerable empirical difficulties) which looked at the fiscal stance in terms of three rates of inflation: respectively, the actual rate, the accommodated rate and the target rate. As indicators of "stance," the inflation adjusted deficit effectively picks up the difference between the first two; the nominal balance picks up the difference between the second two (if the target is zero).
44. Subject to important qualifications about what should be taken as the neutral position.
45. The *ex post* balance of payments was affected by recession. Strictly, the balance of payments should also be cyclically adjusted for the relative conjunctural position of the United Kingdom.
46. The impact is the mechanical effect of oil price increases minus the increase in exports due to oil. Obviously the latter increased as OPEC absorption increased.
47. This is a simplification. It can always be argued that, but for oil, the policies of the government would have had to be even tighter: that is, that oil was taken into account within the MTFs and that if oil prices had not risen, other taxes would have been raised.
48. See the Treasury paper "Background to Government Economic Policy" (United Kingdom, 1981).
49. See Burns and Budd (1979) and Beenstock (1980).
50. Directed by Minford.
51. Suppose, for simplicity, that  $N/M = \text{const.}$  ( $N$  = government debt,  $M$  = £M3). Then  $\dot{m} = \dot{n}$ . However,  $\dot{n} = \frac{\Delta N}{N} = \frac{PSBR}{GDP} \frac{N}{GDP}$ .



Thus the growth of the money supply is equal to the government deficit as a proportion of GDP times the national debt to GDP ratio.

52. See especially Lawson (1980); United Kingdom (1981).
53. See United Kingdom (1981).
54. Beenstock and Willcocks (1981) use a portfolio balance approach working from the supply side of the banking system.
55. Treasury Bills held within the banking system have, in fact, been largely replaced with commercial paper as "overfunding" occurred in the 1980s.
56. This is, of course, not to deny that certain combinations of fiscal and monetary policy may have perverse effects. In particular, there are circumstances where a fiscal relaxation against (say) a fixed money target can deflate the economy. What is happening, however, is that the fiscal expansion is more than balanced by the implicit monetary tightening. This is just a special case of the general proportions that a sufficient monetary tightening can more than offset a fiscal loosening.
57. In a recent study Chouraqui and Price (1984) remark "that fiscal and monetary policies seem to offer policy makers nearer one instrument than two."
58. Such models are common in the literature, but frequently assume that the single asset is (non-interest-bearing) money.
59. See also the discussion of exchange-rate effects in the companion paper on North Sea oil (paper 14).
60. An exercise set up by the Bank of England led to two of the earliest studies, by Worswick (1981) and by Budd (1981). Two more recent studies are Budd and Ellis (1983) and Artis et al. (1984).
61. Swings in the company sector deficit, followed by destocking and labour shedding, were also a feature of the late 1960s squeeze and of the period following the first oil crisis.
62. See Matthews (1982).
63. See Mendis and Muellbauer (1983) and Buiter and Miller (1983).

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## Summary of Discussion on Papers Relating to Australia and the United Kingdom

JOHN SARGENT

As the chairperson remarked in introducing the session, the economic experience of, and economic problems faced by, these two countries tend to strike a much more familiar chord with the Canadian audience than did either the "miracles" of Austria and Switzerland or some of the particular problems of the Netherlands. Familiarity led to some debate over interpretation of actual experience. Professor Laidler argued both that the Heath government's U-turn toward expansion in the early seventies was more dramatic than Mr. Allsopp had suggested, and that monetary policy in 1980–81 had been tighter than suggested. Among other things, M1 growth was consistent with the views that policy was strongly expansionary after the U-turn and strongly restrictive in 1980–81.

There was some exploration of the issue of the possible tendency of long periods of weak activity to raise NAIRU, owing to deterioration in the human and physical capital stocks. Whatever the possibilities in this regard, Professor Gregory did not assign it much weight in accounting for the recent apparent upward shift in NAIRU in Australia. The view that such a shift had occurred was based on a single observation: the combination of strong employment growth, continuing high unemployment, and wage acceleration over the 1979–81 period. If the shift in NAIRU had indeed occurred, it reflected more a change in the relative impacts of the employment and unemployment situations on wage behaviour than in deterioration of the human capital stock. Dr. Higgins noted that the "classical," or "excessive real wage," explanation of insufficient capital formation and, consequently, of high unemployment, sometimes advanced for Europe, constituted a further possibility that was distinct from the "prolonged high unemployment tends to increase NAIRU" view.

Some attention was also given to the issue of the potential for "self-levitating" recovery, that is, of recovery without a shift to more expansionary policy. Mr. Allsopp noted that reductions in inflation would have some expansionary impact given the settings of monetary and fiscal policy. However, he also re-emphasized the view, put forward in his paper, that the fixed nominal deficit targets of the Medium-Term Financial Strategy involved a danger of destabilization by eliminating the automatic stabilizing response to either fast recovery or a stalled recovery.

The discussion ended with questions by Dr. Slater and Commissioner Barber on the Australian experience with terms of trade changes, and the "disturbances" such changes could cause to wage behaviour. Professor Gregory agreed that favourable shifts in terms of trade were important in explaining periods of strong real wage gains. But he viewed the impact on wages of the terms of trade as tending to be non-symmetric. Real wages of most workers did not fall at all easily as the terms of trade declined (partly due to widespread indexing). Farmers were the only labour group whose incomes varied more or less symmetrically with the terms of trade. He noted that there had been talk, at various times, of "trying to redistribute the wealth that comes from the terms of trade changes in such a way that you can chop off the problems." However, as a result of difficulties with the taxation devices which would be involved, there had not been much action. The prospective move to a resource rent tax in the mineral sector might go some way in dampening the impact of shifts in the terms of trade.



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## **The Conduct of Macropolicy in a Federal, Regionally Diverse Economy**



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## The German Experience

UWE WESTPHAL

In my presentation I would like to focus on three questions. First, how expenditure and revenue in Germany is divided among the federal government, the 11 state governments, and approximately 9,000 municipalities. Second, what procedures have been adopted to compensate for the fact that regions differ with respect to their economic situation. Third, what problems arise for macro stabilization policy from the fact that Germany is a federalist state.

Before I start, let me make a brief remark. The Canadian economy is much more diverse than ours. The 11 German states show a diversified structure of production and are, therefore, similar. The differences among them are primarily "A difference in average income and, therefore, a difference in the ability to pay taxes."

According to our constitution, the federal government is responsible for external affairs, defence, communications, transportation, tax administration, and social security. The state governments are responsible for schools, universities, administration of justice, police, and regional policy. The municipalities are active in the areas of energy, gas, water, local transportation, and public health.

The authority for tax legislation belongs nearly exclusively to the federal parliament. The parliaments of the states can only decide on minor taxes; for example, taxes on beverages and on dogs. Municipalities are not allowed to pass tax laws. However, they can pick the level of the property tax and trade tax. Thus, except for these not so important areas, taxes are uniform all over the Federal Republic.

With respect to the distribution of tax revenues, we have two different systems. The revenues of some taxes belong directly to the federal government, the state governments, or the municipalities. For example,

mineral, oil, and tobacco tax belong to the federal government; tax on motor vehicles to the state governments. However, these taxes account for no more than 25 percent of total tax revenues. The other 75 percent comes from the income tax and the value-added tax.

The territorial authorities share in this 75 percent of total tax revenues according to a formula which has to be agreed upon. The formula for the distribution of income tax was changed in 1970 and 1980. The formula for the distribution of the value-added tax is changed more frequently, approximately every three years. Thus, the federal government, state governments, and, to a lesser extent, municipalities have a more or less parallel development of tax revenues when the formula of distribution of taxes is unchanged.

When divergences between expenditure and revenue develop in all three levels of authority, a tedious process of renegotiation sets in. In theory, each state will get the agreed quota of the income tax and value-added tax collected in its region. This allocation, however, would lead to a distribution of income among the states which is not compatible with the principle of a uniform economic development in a federal state. Therefore, payments have to be made from rich states to poor states. The payments are calculated according to a formula which is too complicated to explain here. The basic idea behind this formula is that no state should have tax revenues per head of population less than 95 percent of the average. A state pays transfers to the different municipalities of its region according to a similar formula, so that no municipality is more than 5 percent below the average.

Since tax laws can only be changed by the federal parliament, and thus it is not possible for taxes to be increased in one state and decreased in another, it might seem that the conditions for anticyclical tax policy are in place. However, things are not as favourable as they look.

Tax laws that would lead to a reduction in the tax revenues of the states require the approval of the Bundesrat — the second Chamber, consisting of representatives of the state governments. A typical example is an income-tax reduction planned by the federal government for 1986. This reform is meant to reduce marginal tax rates, and it may also be appropriate from an anticyclical point of view. It is generally expected that the growth of the German economy will fall in 1985–86; thus a change in fiscal policy might be useful in avoiding recession. Moreover, and this may be the primary motive, a tax reduction in 1986 will be helpful for the ruling coalition in the election in early 1987.

Despite these three good reasons, most of the state governments oppose these plans for an income-tax reduction. They see no payoff for themselves. There is no direct relationship between a tax reduction by the federal government and voting behaviour in state elections. What counts for the state governments is that an income-tax reduction would make their balancing of the budget more difficult. Thus, they propose to

combine the income-tax reduction with an increase in the value-added tax rate, so as to compensate for the loss of their tax revenues. However, this would not be effective from an anticyclical point of view.

The situation is somewhat better with respect to time-limited changes in income taxes. According to the 1967 law for stability and economic growth, the federal government, not the federal parliament, is allowed to decide on a time-limited proportional change of the income tax. The change must not exceed 10 percent. The federal government used this power in 1973–75.

To see how expenditures can be used for anticyclical purposes, we have to look at the structure of expenditures of the federal government, state governments, and municipalities. We need not consider wages, salaries, and transfers to private households which are usually not suitable for anticyclical purposes. Instead, we focus on public expenditure on construction and equipment. Statistics show that only 15 percent of total public investment expenditure is done by the federal government, 20 percent by the state governments, and 65 percent by the municipalities.

Investment expenditure by municipalities is procyclical, whereas that by the federal government is anticyclical. With respect to the investment of state governments, the picture is not very clear. Obviously, municipalities spend what they have, and when revenue expectations are good, they dare to borrow. This procyclical behaviour seems quite reasonable from the standpoint of the municipalities. Rates of inflation and unemployment, the current account balance, and the strength of the Deutsche Mark are issues which may have an influence on federal parliament elections; however, they are highly unimportant at the municipal level. What counts is that the municipality was successful in building a new kindergarten or swimming pool, or in attracting a new factory to the area.

Some consideration has been given to changing the procyclical investment behaviour of municipalities. One idea was that municipalities should get only those taxes which show no clear-cut, procyclical behaviour. Another idea was to reduce the tax revenues of municipalities to make them more dependent on transfers from the state governments. These transfers could then be changed in an anticyclical pattern. While these proposals would lead to an improved performance of the economy, they would have serious consequences from the standpoint of stabilization policies. They would reduce the independence and the degree of self-government of the municipalities, which is essential for a sound democracy. At the same time, the quality of public goods might be reduced as the knowledge and experience within that municipality would no longer be used in the allocation of resources.

Thus, we conclude that a sound democracy and a superior quality in the supply of public goods have a higher priority than stabilization. To

achieve these goals, macropolicy has to live with the procyclical investment behaviour of municipalities.

### *Note*

This paper was presented at the symposium "Lessons from Recent European and Australian Macroeconomic Experience" organized by the Macroeconomic Research Section of the Royal Commission on the Economic Union and Development Prospects for Canada, Ottawa, June 8-9, 1984.





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## The Swiss Experience

JEAN-CHRISTIAN LAMBELET

Switzerland, this “landlocked island” hemmed in by the Alps, the Jura Mountains, Lake Constance, the Rhine and Lake Geneva, can be fairly described as a collection of heterogeneous minorities. The reason is that linguistic, religious and cultural cleavages do not coincide but are cross-cutting. As conventional wisdom has it, this particular composition is what Switzerland may owe its very existence to. If, for example, nearly all German-speaking Swiss were Protestants, and nearly all French-speaking Swiss were Catholics, there likely would be no Switzerland. But history saw to it that religion, language and culture cut across each other so that there is no dominant group in Switzerland today.<sup>1</sup>

Of course, Switzerland’s heterogeneity also means that there is really little in common between, say, a “German”-speaking Catholic peasant<sup>2</sup> of Appenzell I.R. and, say, a French-speaking Protestant urbanite such as a denizen of Geneva or Lausanne. Switzerland therefore has to be federal, as even that dyed-in-the-wool centralist, Napoleon, realized in his time.

The question may well be asked: To what extent do the country’s regionally diverse nature and federal political structure affect the conduct of macroeconomic policy? Answering this question is necessarily hypothetical since we must imagine how things would be if Switzerland were neither regionally diverse nor federal. In the following remarks I shall limit myself to some aspects of the question without pretending in any way to give a complete answer.

### Regional Economic Diversity

The concept of regional diversity needs to be defined more precisely since we can give it at least two interpretations. First, an economy can

be regionally diverse to the extent that it consists of a juxtaposition of compact, economically homogeneous regions. For example, one region (say, the Ruhr) is dominated by heavy, "smokestack" industries while other regions are predominantly agricultural, or trade-oriented. Second, an economy can also be regionally diverse — perhaps "diversified" would be a better word — if none of the regions depends on a single or dominant industry. Instead, what will be found is a blend of various industries, private services, public administration, and agriculture.

The geographically balanced nature of Switzerland's economy means that it is regionally diverse in the second sense. Indeed, with one significant exception to be dealt with shortly, none of its regions suffers from anything approaching "mono-industry." Regional diversity in this second sense does not mean that all industries, in the widest definition of the word, must necessarily be spread evenly over the entire country. As a matter of fact, there is some geographical bunching in many Swiss industries. Chemicals, for example, are concentrated in Basle; and banking gravitates around Zurich, Geneva and Basle. What is meant by regional diversity in that sense is rather that each region will harbour several, but not necessarily all, industries.

To the extent that Switzerland's historical and recent economic performance can be deemed a fair success, as I think it can, the geographically balanced nature of its economy is the one explanation which, to my mind, stands out among all others. The crux of the matter has to do not so much with the economy *per se* as with the interactions between the economy and the political apparatus. To see why, suppose that for some reason one particular industry finds itself in difficulty, and more so than the other industries; indeed, it is a rare situation where all industries are equally in trouble at the same time. If this particular industry is spread more or less evenly over the entire national territory, or even if it is not spread so evenly but does not dominate any one region, it will, firstly, be easier for redundant workers and employees to find employment in another industry without having to move to another region. But, probably more important, the particularly hard hit industry will find it difficult to gather enough political clout to put pressure on the national authorities for "assistance." In general, it and other industries when in a similar situation will have no choice but to adjust as best they can, with the overall effect of making the whole economy more supple and adaptable. And, of course, this makes it easier to pursue a relatively simple type of macroeconomic policy, for example, steady monetary growth and balanced public accounts.

The one exception to the geographically balanced nature of Switzerland's economy is the French-speaking regions of the Jura which are dominated, or used to be dominated, by the watch-making industry. Not surprisingly, this is the one industry where there was, at one time, significant intervention by the federal government, almost to the point of

featherbedding (meaning *le statut horloger*, which was adopted in the 1930s, at a time when the dominating ideology was not one favouring government intervention). It is also today, at least so far, the Swiss economy's only real *Sorgenkind* ("problem child"), in the sense that it failed to foresee the consequences of recent technological changes in watch-making. The problem is not so much technological changes per se — after all, quartz movements are a Swiss invention — as the failure to take the necessary adaptive steps early enough. Swiss watch-making firms might have chosen earlier to concentrate on the upper product range (expensive pieces often akin to regular jewelry), or they might have decided to branch off into, for example, *la mécanique fine* (very small and high precision mechanical devices such as electrical micro-motors) long before they had to do so under the pressure of events (when they did not perish purely and simply). Instead, with cozy memories of "collective defensive action" going back to the thirties, they went on making quick francs while the going was still good — until the early seventies. Of course, there are exceptions to this pattern, but it is revealing that the watch-making firms which adapted best and are flourishing today are in general to be found not in the Jura heartland of the Swiss watch industry, but in Geneva or Zurich.

It is noteworthy that a federal structure may be something of a drawback in such a "mono-industrial" situation. The cantonal governments involved (Neuchâtel and Jura, in the present example) will then tend to become powerful mouthpieces and relaying stations for political pressures on the federal authorities, and may complicate and possibly jeopardize the conduct of national macroeconomic policy.

In the case of the watch-making industry, there were repeated attempts in the 1970s by the governments of the cantons involved to induce the National Bank to "save" the watch industry by intervening on the foreign exchange markets so as to bring the franc down to a "more realistic" level. In the event, these pressures were successfully resisted,<sup>3</sup> but there is no guarantee that this will always be so. Of course, local and regional pressures exist in centralized political systems too, but they will perhaps not be as effective if they cannot enroll powerful regional governments in their lobbying efforts.

## Swiss Federal Structure and Macroeconomic Policy

Besides the one possible drawback just mentioned, Switzerland's federal structure may complicate the country's overall macroeconomic policy for yet another reason.

Existing cantonal laws make it difficult and expensive to move from one canton to another. For example, educational systems are often quite different from canton to canton, making it hard for children to change schools. Similarly, cantonal tax laws are such that moving from one

**TABLE 10-1 Total Fiscal Income and Expenditure**

	Share in Total Expenditures		
	Confederation	Cantons	Local Communities
		(percent)	
1950	37.6	34.0	28.4
1960	35.1	37.5	27.4
1970	32.4	39.4	28.2
1980	31.3	39.2	29.5

	Share in Total Revenues		
	Confederation	Cantons	Local Communities
		(percent)	
1950	42.2	31.7	26.2
1960	40.1	33.3	26.6
1970	33.9	39.1	27.0
1980	29.8	39.5	30.7

canton to another often means a temporary increase in income-tax rates: income taxes lag income by up to four and even five years, but settling in a new canton generally means a transitory assessment based on more recent and hence presumably higher annual income. This situation will, of course, inhibit spatial mobility and make the economic apparatus less supple and adaptable, which in turn may put more of a burden on macroeconomic policy and make it less effective.

Table 10-1 illustrates another possible drawback caused by Switzerland's federal structure. In the United States, by contrast, the federal government received almost two-thirds (65.5 percent) of total government receipts in 1982 and its expenditures represented about 70 percent of total government outlays in the same year. The much larger, and increasing, share of cantonal and local government in Switzerland means that any "activist" fiscal policy either would entail impossibly large swings in the federal budget, or would mean coordinating the policies of 26 cantons and some 3,000 local communities. It is therefore understandable why there really are no fiscal policies worth the name in Switzerland and why the old, balanced-budget fiscal religion still holds sway in the country at large.

For those who believe that market economies have to be stabilized by means of an activist fiscal policy, the consequences of Switzerland's federal structure would therefore be viewed as unfortunate. But for those who, for various theoretical and practical reasons, look askance at the very idea of activist fiscal policies, they would rather be a blessing.

Table 10-1 highlights a possibly interesting feature of Switzerland's recent fiscal evolution — the rapid decline of the federal government's share in total fiscal income and expenditure. Traditionally, that is, before World War II, the role of the central government was rather limited in

Switzerland, national defence being its main function and foreign trade duties its main source of income. Then, during the war, the federal authorities were entitled to levy a special ("national defence") tax on both households and firms. After 1945, however, things did not return to the statu quo ante bellum. Reasons for this had to do with the inception of the Cold War, the trend toward the welfare state, and the beginning of a long period of sustained economic growth, which meant that the additional tax bite was more easily accepted.

Table 10-1, however, suggests that things tend slowly to return to the old, prewar norm. Of course, we must not exaggerate: in addition to national defence, there are a number of duties and functions which are unlikely to revert to the cantons and local communities, or be suppressed, and which will consequently remain in the federal government's purview. Examples are social security *latu sensu*; some limited spatial income redistribution, for example, between low- and high-lying regions; fundamental (as opposed to applied) scientific research; and subsidies such as those to agriculture. But the trend away from the central authority is clear; in a sense, this expresses a fundamental fact about Switzerland: the fact that cantonal and local communities come first, the federal government second.

## Conclusion

A federal structure would seem to entail both positive and negative consequences for the conduct of macroeconomic policy. Some of these results have been discussed above, but there may be others. In Switzerland, the balance has clearly been positive, at least in my judgment, primarily because of the spatially diversified nature of the economy. This characteristic is a sufficient condition for a federal structure to facilitate, or at least not hinder, the conduct of macroeconomic policy. Whether it is also a necessary condition is another question.

## Notes

This paper was presented at the symposium "Lessons from Recent European and Australian Macroeconomic Experience" organized by the Macroeconomic Research Section of the Royal Commission on the Economic Union and Development Prospects for Canada, Ottawa, June 8-9, 1984.

1. Assuming that the three main cleavages are Catholic vs. non-Catholic, Latin vs. non-Latin, urban vs. non-urban, the largest group — non-Catholic, non-Latin urbanites or (mostly) German-speaking Protestant city-dwellers — represents about one-third of today's population.
2. The word "peasant" carries no disparaging connotation in Switzerland today.
3. The one time when the National Bank gave in and intervened on a grand scale to stop the franc's tendency to appreciate, in 1978, was when pressures to that effect came from the entire industrial spectrum, not just the watch industry.

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## **Summary of Discussion on Papers Relating to the Conduct of Macropolicy in a Federal, Regionally Diverse Economy**

PIERRE FORTIN

Michael McCracken enquired about tax equalization payments and tax policy formation in Switzerland and the Federal Republic of Germany. Jean-Christian Lambelet stated that no equalization payments exist in Switzerland. The small mountain regions receive some direct help from the federal government. The large state universities are federally subsidized. Also, agriculture is subsidized by the central government. Uwe Westphal indicated that tax and land price competition between the states in Germany is a fact of life.

Fred Gorbet asked about the constraints on state borrowing. According to Lambelet, no strict borrowing rule seems to exist in Switzerland. Westphal indicated that public borrowing is generally bounded from above by the level of capital expenditure at the state level and, even more strictly, at the local level.

Gerry Godsoe wondered how the debate on regional unemployment differentials is carried on in Switzerland. Lambelet reminded him of the very low average level of unemployment there. Regional differences are not great. The small federal unemployment program is not differentiated by region.

Gordon Sparks wanted to know about any non-tariff trade barrier erected by the states in Germany and the cantons in Switzerland. Lambelet discussed the importance of such behaviour in Switzerland. Westphal said the trade taxes are redistributed to the states by the central government independently of the geographic sources of the taxes.

David Slater asked about any difference between the magnitudes of the automatic stabilizers at the federal and the canton/state levels in the two countries. Westphal and Lambelet indicated that social transfers are

an exclusive responsibility of the federal government in Germany and Switzerland, except for welfare payments which are made at the local level. Lambelet added that since there is no withholding income tax system in Switzerland, it could be argued that there was automatic destabilization in the short run.

William White pointed out that regional disconnectedness is much more important in Canada than in either of the two countries. He argued that the tensions between the cyclical behaviour of the manufacturing and resource sectors and regions are crucial in Canada. Provincial governments are also fiscally powerful. For all these reasons, the macro-policy mix has to be different in Canada from other countries and even other federations. Monetary policy usually bears the main burden of the required cyclical policy adjustments. Lambelet differed with White in one respect. The central government in Switzerland is fiscally less powerful than its Canadian counterpart. In his view, there is little in his country worth the name of "counter-cyclical fiscal policy." Moreover, he went on to emphasize the very high labour immobility resulting from the high degree of decentralization of Swiss institutions.

John Sargent emphasized three strands in Canadian thought on the implications of decentralization and regional diversity for the conduct of macropolicy in Canada. First, there is the argument that the rise of the provinces has provoked a decline in the relative importance of the federal government and in its ability to stabilize. While still popular in some circles, this view is partly offset by the observation that provincial growth has come at the expense of the private sector, not of the federal sector. Second, the debate also centres on whether the provinces themselves should conduct counter-cyclical fiscal policy. Ontario, Quebec and British Columbia have done so at times. On average, there is no evidence yet that provincial budgets have a systematically perverse cyclical bias. Third, there is also a debate about whether the federal government should conduct counter-cyclical fiscal policy on a regionally diverse basis. In addition to the implicit differences in the regional incidence of given national measures (for example, income tax changes), the central government has at times introduced explicitly differentiated measures, most notably in capital subsidy programs and tax incentives for investment.

Robert Gregory made the point that the high rate of labour mobility within Australia helped equalize the regional unemployment rates. He also reported that in instances where some states diverged from federal government fiscal policy, they soon bumped against financial constraints.

Chris Higgins closed the discussion with a number of observations. First, the Australian states have regrouped together to get better interest rates domestically or abroad through a central borrowing agency. In the 1950s the federal government borrowed for the states, but in the 1960s the

latter wanted to exercise more power. Second, the takeover of the income tax field by the central government created an important federal-state conflict. Third, Australia has complex and elaborate revenue-sharing and equalization schemes. Fourth, there have indeed been instances of divergence between the federal government and some states (as mentioned by Gregory) on matters of fiscal policy objectives. Fifth, one important instrument for the regionalization of federal fiscal policy is direct job-creation programs.



**PART VI**



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**The Role of Incomes Policy in  
Macroeconomic Strategy**



## The Role of Incomes Policy in Austria

HELMUT FRISCH

In this note I shall develop further the section on incomes policy in my paper on macroeconomic experience in Austria (paper 5). Incomes policy in Austria is based on a system of institutions with a long history. The Austrian Constitution stipulates the establishment of various chambers to represent the different occupational groups. Membership in the various chambers is compulsory. Every entrepreneur is by law a member of the Chamber of Commerce, every employee is a member of the Chamber of Labour, and every farmer belongs to the Chamber of Agriculture. These three chambers are empowered by law to represent the interest of their occupational groups in public affairs and with the authorities. For example, the chambers must be consulted by the government on economic and financial legislation and policy. In addition, there are two important voluntary organizations: the Trade Union Federation (representing approximately 60 percent of employees) and the Union of Austrian Industrialists.

These institutions, including representatives of the government, form the Joint Commission for Prices and Wages, also known as the Parity Commission. In the absence of a legal basis for this institution, participation is based on voluntary cooperation and decisions must be taken unanimously. The members of the government do not vote; they try, if possible, to effect a compromise between the social partners. With two subcommittees, a subcommittee on wages and another on prices, the Parity Commission tries to review and influence wage and price developments. The Wage Committee has no influence on the actual bargaining agreement worked out by the unions and the employers association in a particular branch of the economy. The principal role of the Wage Com-

mittee is rather to determine the date and the sequence of new wage negotiations and partially to influence the intensity of the negotiations. Although no wage guidelines exist, the following interpretation might be compatible with the practice of the Wage Committee: the wage development should be in accordance with the change of labour productivity and the rate of inflation in the open sector of the economy.

The Price Committee, in contrast, reviews the pricing of about 20 percent of the Austrian output. Presentations of proposed price increases by individual firms or branches are voluntary and in practice no direct penalty follows (besides "poor" public image) from not accepting the price-reviewing process. The deliberations of the Price Committee are based on information provided by the applicant. The committee works on a cost/mark-up principle, permitting price adjustments only to cover cost increases.

Given the fact that decisions about proposed price increases require unanimity, the actual effectiveness of the price side of Austrian incomes policy seems to be doubtful (Flanagan, Soskice, and Ulman, 1983, p. 62). It is more likely that the appearance of symmetrical treatment of wages and prices was needed by the unions to make a wage policy in a macroeconomic context more plausible to the rank and file.

Let us compare the Austrian version of incomes policy with a standard definition. For example, Faxén (1982, p. 365) defines incomes policy "as government efforts to coordinate wage and salary developments with monetary, fiscal and exchange rate policy by means of direct pressures on collective bargaining." This definition completely fails to capture the reason why incomes policy was successful in Austria. In contrast to this definition and the situation in many other countries, the incomes policy institutions that have emerged in Austria have not been the result of direct government intervention. The unusual abstinence of the government and the inherently voluntary nature of the incomes policy have been noted by several observers (Flanagan, Soskice, and Ulman, 1983, p. 58). The strength of the social partnership in Austria lies in the transfer of real authority and responsibility for incomes policy from the government to the major economic interest groups.

At the end of the 1960s and the beginning of the 1970s incomes policy could not prevent inflation but rather worked to reduce the transmission of the acceleration of international inflation. Combined with the hard currency option, this policy prevented a vicious circle of devaluation, higher import prices, and higher nominal wages which would have quickly caused a dilution in the restorative power of exchange-rate adjustments. At the beginning of the 1980s incomes policy was used for wage moderation after the second oil shock. This was an important factor in enabling the Austrian economy to absorb relatively smoothly the second oil shock without strong unemployment increases.

## **Reasons for Success of Incomes Policy**

### ***Historical Experience***

There was a strong desire by all parties to avoid a repetition of the experience of the First Republik (1918–38), where political and class differences culminated in a brief civil war (1934) and ended with the German occupation of Austria. World War II was followed by ten years of Allied occupation, a period during which it proved useful to transfer decision making to the social partners in order to avoid intervention by the Allies. This transfer of authority was a precondition for a successful operation of incomes policy.

### ***Political Consensus***

The above political consensus facilitated cooperation among the major economic interest groups. The implicit economic ideology of the social partners was a consensus that (a) the status quo of income distribution is “fair,” and that income distribution should not be changed by means of wage and price policy, and (b) that a high level of employment is only possible if the international competitiveness of the Austrian economy is protected. The unions in particular accepted the argument that a loss of international competitiveness is a loss of jobs.

### ***Role of the Chambers***

The social partners not only deal with price and wage problems but through the chambers also influence the general course of economic policy making in Austria. The Chambers of Commerce and Labour must be consulted by the government in formulating economic and financial legislation and policy. The results of investigations on economic and social affairs by the Economic and Social Advisory Board serve as a basis for recommendations to be made to the federal government. These large fields of activity and influence were additionally strengthened by the Austrian government practice of transferring decision making in incomes policy to the social partners. On the one hand, this state of affairs differentiates the system from other countries and explains its efficiency and duration. On the other hand, however, we can argue that the social partners operate like a parallel government, and that they make decisions which, in other Western democracies, are the responsibility of the elected government.

### **Possible Lessons from Austrian Experience**

Is it possible for Canada to learn from the Austrian experience in economic policy making with respect to the problem of a small economy

vis-à-vis a dominating economy: Austria vis-à-vis West Germany; Canada vis-à-vis the United States? Considering the labour market, the difference seems to be that wage developments in Canada are sectorally more diversified and that no global wage bargaining exists as in Austria. If labour markets are not perfect markets, some kind of incomes policy to bring nominal wages in line with the increase in labour productivity and the rate of inflation would be beneficial for the economy. Incomes policy should be implemented especially to avoid inflationary pressures due to conflicts in the labour market. If the Canadian dollar is pegged to the U.S. dollar, the competitiveness of the Canadian economy would not deteriorate if nominal wages in the long run increase with the rate of increase of labour productivity in the exposed sector (i.e., traded goods) and with the U.S. rate of inflation. Of course, the particular kind of Austrian incomes policy with its specific institutions and historical experience cannot be exported. It is also dubious whether the governments of Western economies would be prepared to transfer decision-making power in economic affairs to the social partners to the same extent as in the Austrian model. To make incomes policy more flexible, indexation of wages should be avoided. Each new wage bargaining should be "zero based" in the sense that recent productivity trends and new international inflationary developments should be estimated.

Since the hard currency option was favourable in Austria, it might also be favourable for Canada. This can be achieved by anchoring the Canadian dollar to the U.S. dollar by means of an adjustable peg, but floating against all other countries. The main argument against a weak currency option is the "vicious circle" hypothesis, according to which devaluations, at best, provide only temporary relief. In the absence of money and exchange-rate illusion in the wage-setting process, a devaluation would be followed relatively quickly by nominal wage increases which would reduce the restorative power of exchange-rate adjustments. The hard currency policy, therefore, can be viewed as a precondition for an effective incomes policy. With the Canadian dollar pegged to the U.S. dollar, Canadian wages and prices in the exposed sector must follow the patterns set by the United States if, at the given exchange rate, balance-of-payment problems with the United States are to be avoided. Any tendency for Canadian inflation to exceed U.S. inflation implies a deterioration in the competitiveness and in the trade account vis-à-vis the United States and the rest of the world.

It should be emphasized that in Austria a system of investment promotion by means of accelerated depreciation has been in operation for decades. This system has effected a stabilization of the long-run expectations of firms.

During the 1960s and 1970s the Austrian policy makers tried to conduct an activist counter-cyclical fiscal policy. Given the experience in this period, can Austrian fiscal policy be labelled "counter-cyclical"? As

shown in paper 5 it was sometimes anticyclical, and sometimes procyclical. The reason is that increasing and decreasing budget deficits are by no means symmetric procedures. It might be possible to increase deficits but, given the political process, for obvious reasons it is virtually impossible to reduce deficits. Budget deficits remain and even increase when the underlying economic process enters into a pronounced upswing. Given this operational lag, it seems more efficient to use fiscal policy only to avoid cumulative processes in both recession and inflationary periods. Stabilization policy should rely more on built-in stabilizers rather than on discretionary fiscal measures. In a large country like Canada with marked provincial differences, discretionary fiscal policy measures might be appropriate to balance these regional differences.

Finally, a system of incentives to increase the mobility of the labour market and with retraining programs to increase the matching of labour supply with jobs offered would not be harmful. Owing to an apprenticeship system, youth unemployment did not develop in Austria until recently. Graduates of the compulsory school program who at age fifteen do not continue school usually become apprentices. They receive a training program in the firm and assist in the regular production process after only a short period. Since their compensation is approximately one-fourth of the average wage, their employment is very attractive for firms and demand for apprentices usually exceeds supply. Apprenticeship programs might reduce the disproportionately high rates of unemployment in many Western countries.

If the above policy measures are undertaken, it would be hoped that there exists, in Schumpeter's sense, enough entrepreneurial potential in the economy — that is, agents with the ability to recognize economic possibilities and who, by generating new activity, push the economy again and again on a growth path.

## Note

This paper was presented at the symposium "Lessons from Recent European and Australian Macroeconomic Experience" organized by the Macroeconomic Research Section of the Royal Commission on the Economic Union and Development Prospects for Canada, Ottawa, June 8–9, 1984.

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## France's Experience with Incomes Policy

GEORGES DE MENIL

### The Forms of Incomes Policy

The term "incomes policy" has as many meanings as the nations which have implemented such a policy have different institutional and political traditions. In Northern Europe and North America, an "incomes policy" is generally a process by which government enters into a dialogue with the representatives of management and labour and seeks to generate a consensus of support for more moderate growth of nominal and real incomes. The countries which have implemented such programs have tended to have well-established traditions of collective bargaining in which the rival interests of employers and employees are mediated by industrial associations and stable unions. Instituting an "incomes policy" has generally meant involving these parties in a parallel process intended to protect the interests of the public.

In France, and perhaps elsewhere in Latin Europe, the consensus in support of almost any internal policy tends to be weak and ephemeral. Individuals and rival social groups are seldom willing to accept more than a tacit agreement not to disagree with the status quo or with a program imposed from above. Traditionally, the resolution of social conflict has required the mediation of a strong, authoritative central government. Not surprisingly, unions have tended to be weak and have agreed to collective bargaining and its implicit responsibilities only reluctantly.<sup>1</sup> They have preferred to preserve their freedom to protest and strike.

Thus, when the French think of "incomes policy," they traditionally think of statutory regulations permitting the central government to administer prices and wages in accordance with the public interest. By

virtue of a law which dates to 1945, the government has full authority to control all prices and wages. The government has effectively exercised this authority in different forms continuously, with one exception, during the past 30 years. The exception is the three-year period from 1978 to 1981 when Prime Minister Raymond Barre lifted all forms of price regulation in the private sector. Outside these three years, periods of administrative supervision of maximum rates of increase have been followed by periods in which permissible increases were negotiated firm by firm with the government (examples include the *contrats de programme* of 1966 or the *programmation annuelle contrôlée* of 1974). Both modes have been punctuated with episodes of outright freeze.

Somewhat paradoxically, the government typically has used its regulatory authority to administer prices rather than wages. Though they acquiesce to strong centralized authority, French workers have never accepted protracted periods of wage control. During periods of price freeze, mandatory ceilings have sometimes also been applied to wages, but more routine forms of administrative surveillance have customarily dealt only with prices. Successive governments have nonetheless attempted to use the price apparatus to moderate wages by squeezing profits.

## The Record

France's 40 years of experience with price administration show that, in a highly regulated economy, a government with sufficient authority can effectively control prices, if it is prepared also to conduct appropriate monetary and budgetary policies. Notable examples of success in the reduction of inflation in which stringent controls played an important part during the Fifth Republic include the monetary reform of 1958, the Giscard Plan of 1964/65, and the Delors Plan of 1982–84.

In 1958 stringent temporary price and wage controls figured prominently in the emergency measures by which the new government of General de Gaulle halted a foreign exchange crisis and restored confidence in the franc. In 1964/65 inflationary pressures engendered by a wave of immigration of French nationals from North Africa were effectively countered with budgetary restrictions, quantitative credit controls, and price controls.

The experience with controls in 1982 nearly proved to be a counter example to the general thesis that they can contribute positively to macroeconomic stabilization. A four-month price and wage freeze, followed by an eight-month period of more flexible controls, was initially the principal support provided to the 10 percent devaluation against the German mark in June 1982. These measures were not, at first, accompanied by the budgetary and credit restrictions required to validate them. Consequently, balance-of-payments difficulties returned and a



further devaluation in March 1983 threatened to set off a new inflationary spiral.

At that point, nine months after the initial freeze, Finance Minister Jacques Delors prevailed upon the government to enact stringent budgetary measures designed initially to reduce its deficit by FF60 billion. These restrictive measures, which amounted to a reversal of the budgetary policies of the preceding two years, proved sufficient to validate the two devaluations and support the administered reduction in the rate of inflation. The annual rate of increase of the consumption deflator declined from an average of 10.3 percent in the first half of 1982 to 8 percent in the first quarter of 1984 (Table 12-1).<sup>2</sup>

The control procedures embedded in Delors's program were in themselves noteworthy. First, wages were directly subject to a freeze, for the first time since 1958. Second, in the postfreeze period, the government removed automatic indexation from all public wage agreements. Rates of wage increase were based instead on the government's *ex ante* target for the rate of inflation. The stated norm built into the new contracts negotiated in the second half of 1982 and in 1983 was that wages were to rise at the same rate as consumer prices. There were to be no real wage increases in the public sector. The thrust of this reform was somewhat mitigated by the inclusion in these agreements of a provision for a reopening of salary negotiations at the end of the year to permit employees to recapture any losses of real income which might result from higher than targeted rates of inflation.

In weighing the contribution of controls to stabilization in France, we must include in the balance the associated cost in the form of reduced competition and greater economic inefficiency. Price controls, particularly of the continuing kind that France has known, inevitably distort relative prices and discourage entrepreneurial initiative. The regulatory process provides firms with a legal and more effective means of organizing markets and restraining competition than could a producers' association.

Furthermore, the process imparts a stagflationary bias to the cycle of recession and recovery. Because unit variable costs can be more readily measured than most other determinants of price, the presence of an ongoing price administration encourages firms to link their prices to this measure. The result is that in a recession, when market forces tend to push prices down, prices nonetheless rise because the customary cyclical decline in productivity pushes unit costs higher. Rising unit costs act as an umbrella for counter-cyclical price increases. Since the nature of a price administering agency is to allow increases rather than to mandate decreases, the system does not result in corresponding reductions in prices when productivity is rising in the early phases of recovery.

De Menil and Westphal have argued that this perverse side effect of continuing controls accounts for a significant portion of the magnitude and persistence of the additional inflation triggered by the first oil shock

**TABLE 12-1 The Evolution of Real and Nominal Wages during the Barre and Delors Programs**  
(selected periods, percent change from preceding period, at annual rates)

Barre	1976.2	1976.3	1976.4	1977.1	1977.2	1977.3	1977.4	1978	1979	1980
Average hourly earnings <sup>a</sup>	15.1	14.3	12.7	12.3	10.8	11.6	12.7	12.7	12.8	14.2
Consumption prices <sup>b</sup>	9.6	9.1	9.6	6.3	11.1	8.5	6.8	8.8	10.4	13.2
Real average hourly earnings	5.5	5.2	3.1	6.0	-0.3	3.1	5.9	3.9	2.4	1.0
Delors	1981	1982.1	1982.2	1982.3	1982.4	1983	1984.1 <sup>c</sup>			
Average hourly earnings <sup>a</sup>	15.4	20.3	14.1	5.6	8.9	9.7	6.0			
Consumption prices <sup>b</sup>	12.7	9.9	10.6	7.8	3.9	9.1	8.0			
Real average hourly earnings	2.7	10.4	3.5	-2.2	5.0	0.6	-2.0			

a. Average hourly earnings of employees in the private sector, INSEE Quarterly National Accounts, May 1984.

b. Deflator for household consumption of private goods and services, INSEE Quarterly National Accounts, May 1984. A certain amount of smoothing in the construction of this index tends to cause it to lag effective price movements.

c. The figures in this column are based on the average response to the labour ministry's wage survey and the evolution of the cost of living index. They are not strictly comparable with earlier data.

in France.<sup>3</sup> After rising from 6.8 percent to 13.2 percent between 1973 and 1974, the rate of inflation in consumer prices stabilized in France, and was still 8.8 percent in 1978. In Germany, in contrast, where the pricing mechanism is free of intervention and is relatively flexible, inflation was 7 percent in both 1974 and 1973 (it had been 5.6 in 1972) and it declined progressively to 2.7 percent in 1978. This difference has many origins — the higher initial rate of inflation in France, the relative appreciation of the mark, etc. — but de Menil and Westphal demonstrate by means of comparative simulations that the cost-plus character of pricing in France contributed about 4 percent to the cumulative differential between French and German price levels between 1973 and 1978.

Administrative controls have not figured prominently in every successful anti-inflationary program that France has known during the Fifth Republic. The policies followed by Prime Minister Raymond Barre between 1976 and 1981 provide an interesting example of an alternative route toward disinflation based on macroeconomic rigour and deregulation. Though the programs of Barre and Delors have some points in common, Barre's approach to stabilization was different from that of Delors, even in the second phase of the latter's program. Barre immediately instituted, in his first month of office, restrictive fiscal and monetary policies designed to maintain sufficient slack in the economy to put downward pressure on wages and prices. At the same time, he engaged in an intensive campaign of economic education, some of whose themes were to be repeated by Delors. He emphasized the negative long-term implications of inflation for growth and employment. In 1977 he formulated a voluntary norm for wage and price increases which he applied to collective bargaining in the public sector. The explicit reference to an *ex ante* target for wage and price increases can be viewed again as a precursor of some of Delors's reforms. However, unlike Delors, Barre did not imbed this norm in any explicit regulatory process. On the contrary, appealing to market forces rather than to administrative guidance, he abolished all price controls in 1978.<sup>4</sup> The thrust of Barre's program was to supplement macroeconomic stabilization with deregulation, rather than to supplement regulation with budgetary and monetary austerity.

Not surprisingly, it took four years of Barre's policies to bring about what Delors's program accomplished in two or less. Comparison of the results of the two programs is complicated by the fact that the second oil shock caused inflation to rebound during the last two years of Barre's government, whereas the ensuing international recession put a downward pressure on prices throughout Delors's tenure as finance minister. Simply comparing rates of inflation would, therefore, be misleading. However, the rate of increase of real wages provides a measure of the effectiveness of the two programs which is less susceptible to this distortion. Slowing the progression of real wages was from the beginning

one of Barre's major policy objectives, and came to be one of Delors's after the reversal of the Socialist government's macroeconomic priorities in June 1982.

Table 12-1 presents data on the annual rates of increase of private average hourly earnings and consumption prices for selected periods from 1976 through 1984. After presiding over a dramatic surge in the annual rate of increase of real wages from 2.7 percent in 1981 to an average of 7 percent the first half of 1982, Delors implemented stringent controls which brought the rate down to 1.4 percent in the second half of 1982. It continued to remain low in 1983, and appeared to be negative at the beginning of 1984.

At the time of the introduction of the Barre program, real wages had been accelerating for several quarters. Under the influence of Barre's program, their rate of increase gradually decelerated from 5.5 percent in the last quarter prior to the implementation of the program to 1 percent on average in 1980. The reduction in the rate of increase of real wages was greater and faster under Delors than under Barre. Delors's aggressive use of the authority to control prices clearly contributed to this result. It may also have further restrained competition and discouraged entrepreneurial initiative.

## **Lessons from French Experience**

France is the only nation among the major industrial democracies whose economy has operated almost continuously under some form of centralized price administration since World War II. Its experience has been that controls are a double-edged sword. On the one hand, a tightening of the regulatory procedures can, if accompanied with the correct macroeconomic policies, accelerate the pace of disinflation. This is the lesson of 1958, 1964 and, to some extent, of 1982-83. The proviso is an important one. A second lesson of the 1982 experience is that controls which facilitate the postponement of necessary budgetary restraint do more harm than good, particularly in the wake of a devaluation.

On the other hand, subjecting the economy to a regulatory overview of all private pricing decisions burdens it with substantial inefficiencies and a stagflationary bias. Similar results can be obtained, though more slowly, through reliance on market forces, when budgetary and monetary rigour are applied in a timely fashion.

## Notes

This paper was presented at the symposium "Lessons from Recent European and Australian Macroeconomic Experience" organized by the Macroeconomic Research Section of the Royal Commission on the Economic Union and Development Prospects for Canada, Ottawa, June 8-9, 1984.

1. This weakness holds, despite the fact that in France, union members represent roughly the same 20 percent of the labour force as they do in the United States.
2. Inflation was lower yet during the months of the freeze. But the success of the program has to be measured not by those artificial results but by the degree of sustainable reduction achieved later.
3. See "The Transmission of International Disturbances to the French and German Economies, 1972-1980," in *Stabilization Policy in France and Germany: A Comparative Analysis*, edited by G. de Menil and U. Westphal (Amsterdam: North Holland, 1985). In Table 10, the authors compare the response of the price level in the two countries to the world-wide recession of the early 1970s. They find that, by 1978, it had contributed to making consumer prices 0.9 percent higher in France and 2.9 percent lower in Germany.
4. When Barre's program was first announced, in September 1976, it was accompanied by a temporary three-month price freeze intended to contribute to breaking inflationary expectations. (The actual reduction in price increases was moderate, and showed up in the statistics with a lag.) The freeze was not followed by a longer period of tight price monitoring. In the end, the decision to dismantle price controls two years later proved to be a more significant as well as more characteristic feature of the program than the initial freeze.



## **A Note on Incomes Policy from a Swedish Perspective**

ULF JAKOBSSON

This note on incomes policy has been worked out as background material for a panel discussion. A systematic coverage of the whole range of topics under this heading is therefore not the purpose of this paper. Instead, I want to take up a few aspects of the subject that have been of particular relevance for Swedish wage formation during the last couple of decades.

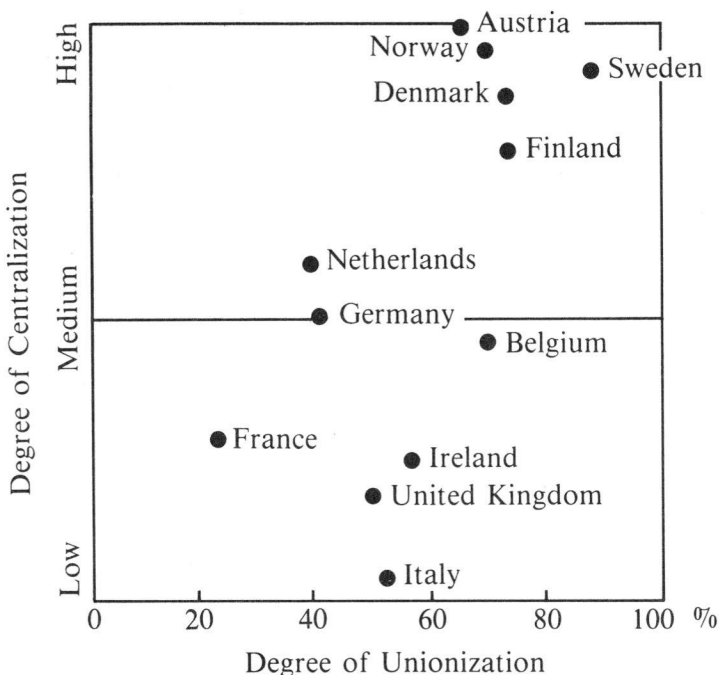
The Swedish experience might have some general interest. First, the relative success of the Swedish consensus model of the 1950s and 1960s evoked a wide international reputation as a good example of social engineering. Therefore, it should be of some interest to try to answer the question why this model was less successful or even deteriorated during the 1970s. Many features of the Swedish experience are common to several small European economies. Even if there are also important differences, Sweden could perhaps serve as a case study from which some generalizations could be made. References to and comparisons with other countries are made at several points in this paper.

### **Strong Unions and Centralized Bargaining**

A description of Swedish experiences of incomes policy could be very short. Taking a formal point of view, Sweden has not had statutory incomes policies. The social partners have had the full responsibility for the process of wage bargaining. The government has, however, tried in various ways to influence the outcome of the settlements. Not least important is the role of the government as a large employer itself.

Since governments try to influence wage formation in nearly all countries and as this influence seldom takes the form of a statutory incomes

**FIGURE 13-1 Centralization and Unionization in Twelve European Countries**



Source: Derived from C.A. Blyth, "The Interaction Between Collective Bargaining and Government Policies in Selected Member Countries." In OECD, *Collective Bargaining and Government Policies* (Paris: OECD, 1978).

policy, the direct role of government in wage bargaining does not seem to be an important distinction among countries. Much more important are the degree of unionization and of centralization in the bargaining process. High levels of each give Swedish wage formation its distinctive flavour (Faxén, 1982).

Figure 13-1 gives the position of different European countries with respect to unionization and centralization. The horizontal axis measures known degrees of unionization while the vertical axis presents a subjective assessment of the centralization of wage bargaining. This assessment is based on the effective centralization of employer and union federations, on the extent of power wielded by such bodies, and on the influence of government and/or central tripartite institutions. As can be seen, Sweden can be found in the northeast corner of the figure. Canada and the United States are not covered by the figure but they would obviously be found in the southwest corner. Therefore, the governments in the United States and Canada are working in a quite different environment from those in northern Europe when they are trying to influence the rate of wage increases.

**TABLE 13-1 Performance Indicators for the Various Countries**

	P <sub>1</sub>	P <sub>2</sub>	Y <sub>1</sub>	Y <sub>2</sub>	CA <sub>1</sub>	CA <sub>2</sub>	U <sub>1</sub>	U <sub>2</sub>
<b>Countries with Centralized Bargaining</b>								
Austria	4.4	5.9	5.2	2.3	-0.1	-1.1	1.7	2.3
Denmark	6.3	10.5	4.4	1.7	-2.1	-3.4	1.1 <sup>a</sup>	6.9
Finland	6.3	11.6	5.1	2.7	-1.6	-2.3	2.2	4.9
Germany	3.5	4.7	4.5	1.5	0.8	0.4	0.8	4.1
Netherlands	5.9	6.5	5.4	2.8	0.3	1.4	1.2	6.2
Norway	5.5	9.6	4.3	3.5	-1.4	-3.5	1.6	2.0
Sweden	5.1	10.1	3.8	1.5	0.2	-1.9	1.9	2.2
Average	5.3	8.4	4.7	2.3	-0.6	-1.5	1.5	4.1
<b>Countries with Decentralized Bargaining</b>								
Belgium	4.2	8.0	5.0	1.6	1.4	-2.0	2.2	8.6
Canada	3.9	9.4	5.7	2.3	-0.7	-1.5	4.9 <sup>b</sup>	8.1
France	4.7	11.1	5.4	2.2	0.0	-1.1	2.4 <sup>b</sup>	5.7
Italy	4.6	16.8	4.9	1.7	1.9	-0.7	5.7 <sup>b</sup>	7.4
Japan	6.0	7.6	9.6	3.5	1.0	0.4	1.2	2.1
United Kingdom	5.6	13.5	3.2	0.9	-0.1	-0.2	2.9	7.4
United States	3.8	8.4	4.0	1.9	0.3	-0.1	4.5	7.3
Average	4.7	10.7	5.4	2.0	0.5	-0.7	3.4	6.7

*Sources:* Organisation for Economic Co-operation and Development, International Financial Statistics; Labour Force Statistics; Main Economic Indicators; National Accounts of OECD Countries; OECD Economic Outlook, December 1983; OECD Economic Survey for Denmark, May 1983 (Paris).

*Notes:* Subscript 1 refers to the 1964-73 period and subscript 2 to the 1974-83 period.

a. 1965-73.

b. 1966-73.

P: Average annual rate of change of consumer price index.

Y: Average annual rate of change of GDP.

CA: Current Account in percent of GDP.

U: Registered unemployment in percent of the labour force.

In some of the countries in the upper part of the figure, statutory incomes policy has been used more or less frequently. The Netherlands and Finland have worked with incomes policy regularly, while Norway and Denmark have used it occasionally during the 1970s. An interesting question is whether the position of a country in the figure is strongly correlated with other economic variables, such as rate of inflation, unemployment and profit share. Concerning profit shares, they are not significantly different in highly unionized countries than in other countries. Profit shares after OPEC I have decreased significantly more in unionized and centralized countries than in other countries. In Sweden the gross profit share has, during the last three decades, been lower than in most OECD countries. During the 1970s the profit share in Sweden has decreased faster than in all OECD countries with the possible exception of Norway (Faxén, 1982).

Table 13-1 gives indicators of economic performance for countries with centralized and decentralized bargaining (Calmfors, 1984). On the average, countries with centralized bargaining seem to come out somewhat better than those with decentralized bargaining. There are, however, many dif-



**TABLE 13-2 Average Annual Increase of the Share of Public Employment in Total Employment**

	1966-73	1974-76	1977-81
Average for countries with centralized bargaining	0.5	0.4	0.5
Average for countries with decentralized bargaining	0.3	0.3	0.1
Sweden	1.0	0.6	0.7

ferent factors that affect the economic performance of a country and there are wide dispersions within the two groups of countries. We should therefore be extremely careful when drawing conclusions from Table 13-1. One area where there seems to be an obvious difference, at least for the period covered, is unemployment. The unemployment rate is markedly less in those countries with centralized bargaining.

The increase in public employment has been faster in unionized countries with centralized bargaining. Table 13-2 examines this trend for the same two groups of countries as listed in Table 13-1. These figures seem to reflect a general tendency in the highly unionized countries to keep up employment with public sector expansion. Most of these countries have developed large public sector deficits in the 1970s, especially the Nordic countries.

One important feature of collective bargaining is that wage drift is usually much higher under centralized than decentralized systems. In part this may stem from differences in definitions of wage drift. Probably a more important reason is to be found in the more uniform nature of the wage bargain settled upon at a national level, combined at times with elements of solidaristic wage policy dictated by egalitarian income-distribution considerations. This inevitably leads to compensating bargains being struck at plant level. But such compensating bargains are influenced by the state of the labour market. Thus, an analysis of wage drift in, for instance, Sweden (Schager, 1980) leads to the conclusion that a significant deviation of the outcome of wage bargaining at the central level is compensated through wage drift after about three years. This result indicates that there are important limitations to the power of central wage bargainers to determine wage levels and wage structures. For Sweden this situation is illustrated by Table 13-3, which gives an account of increases of wage costs for industrial workers in Sweden after 1970. It is seen that negotiated wage increases account for only half of the total increase.

An important area where countries with centralized bargaining differ from the other countries is that of frequency of open conflict. This is

**TABLE 13-3 Wage Costs for Industrial Workers in Sweden**

Year	Negotiated Wages	Wage Drift	Payroll Taxes and Social Security		Hourly Wage Cost
			By Law	Negotiated	
1970	4.5	7.1	0.7	0.0	12.4
1971	6.3	4.2	1.2	0.0	11.8
1972	7.5	4.3	0.2	0.3	12.4
1973	4.1	4.0	1.8	1.3	11.5
1974	5.0	6.8	3.7	1.4	17.5
1975	10.5	7.5	3.6	0.1	22.4
1976	7.9	5.4	3.1	0.0	16.8
1977	3.7	3.5	2.9	0.5	10.8
1978	4.8	3.2	-0.8	0.1	7.2
1979	4.4	3.8	0.2	0.2	8.7
1980	6.1	3.2	0.8	0.0	10.2
1981	5.9	4.2	0.4	0.1	10.7
1982	4.1	3.5	0.1	0.1	7.8
1983	3.8	2.9	2.3	0.1	9.3
1984	5.7	3.0	-0.1	0.1	8.7
Yearly average	5.6	4.5	1.4	0.3	12.0

Sources: SCB and SAF.

**TABLE 13-4 Negotiated Wage Increases with Public Sector and Private Sector as Wage Leader, 1970-84 (average yearly increases)**

Wage Leading <sup>a</sup> Sector	Number of Years	Average Yearly Negotiated Wage Increase <sup>b</sup>	
		Industrial Workers	Public Sector Employees
Public Sector	7	7.0	9.4
Private Sector	7	4.8	7.7
Entire Period	14	5.9	8.6

a. A sector is defined as wage leader if it is first to make the settlement.

b. To get total earnings increase, wage drift has to be included.

clear from Table 13-4. It is seen that the average number of working days lost through industrial disputes is dramatically lower in countries with centralized wage formation than in the other countries. The interpretation is, however, not obvious. While a natural conclusion might be that centralized bargaining seems to foster a climate of consensus, it might be the other way around — that a general climate of consensus creates a situation where centralized wage bargaining becomes natural.

### Government Influence on Wage Formation

For countries with strong unions and centralized wage bargaining, the behaviour of unions is often thought to be of central importance for the

outcome of economic policy. Since unions and wage settlements have a nation-wide coverage, the behaviour of unions has a direct macro-economic impact. Therefore, the environment in which governments pursue their economic policy is quite different from the atomistic market economy in which textbook governments pursue their fiscal and monetary policy. Recent literature has described this as a game situation between the government and the labour market organizations.

It might be useful to look at the Swedish experiences with this perspective in mind. Analytically, the situation differs if there is consensus between government and unions or not. It is only in the situation of a non-consensus that the rational government would have to use its influence to keep wages down. In the case of complete consensus between unions and the government, the game situation is not an accurate description.

In hindsight, the 1950s and 1960s appear as a period of consensus between the dominating blue-collar workers' union, LO, and the government. We can argue that there was a considerable degree of coordination between the wage policy of the LO and the general economic policy of the government. The fixed exchange rate was functioning effectively during this period as a norm for price and wage increases. In principle, this norm was accepted by the unions. It was a period of good performance in the Swedish economy. Theoretically, however, there is nothing precluding formation of a consensus around a bad economic policy.

Since the beginning of the 1970s the situation in Sweden could not be described as one of a good and effective consensus. With the possible exception of Austria, this also goes for the other economies with centralized bargaining. It is therefore natural to analyze the situation of the 1970s for highly unionized economies as one where unions and the government have different macroeconomic goals. Since union members are also voters, the situation is not uncomplicated from an analytical point of view. There is no theoretical analysis of how the goals of governments and the unions are formed in a political democracy with strong unions, and why the goals tend to differ.

In general, the following explanations for different goals between government and unions might be listed. Each explanation does not necessarily exclude the others.

- The government represents a coalition of non-union members, non-wage earners and union members who dissent from the official view of the union. This is a clear-cut but highly polarized situation.
- Union leaders do not represent the majority view of members. Therefore, a majority of union members could vote for a government which pursues a policy that goes against the goals of the union.
- Unions are fractionalized. The main goals of the unions and their members are therefore to keep or to improve their relative position to other wage earners.

In the latter case it might be a consistent behaviour for individuals as union members to demand high wage increases for their own group, while they as voters back up a government that in its economic policy works for a general restraint of wages.

This last scenario might be a realistic description of the present Swedish situation. The blue-collar workers' union in the 1950s and 1960s had a completely dominating position on the union side. During the 1970s other unions have been growing in importance, particularly white-collar workers in the private sector and in central and local government, each being represented by a separate negotiating body. The growth of the public sector as an employer has also strengthened the public sector part of the LO, which has been playing an independent role in the negotiations. The end result is one of strong and fractionized unions. While the LO in the 1950s and 1960s could be described as encompassing, using the term coined by Mancur Olson, there certainly is no encompassing union in the present situation.

In the 1970s Sweden experienced a severe cost crisis. In terms of the government-union game theory this could be explained as a result of the unions exploiting the extreme Keynesian position taken by the government at that time. It could also be explained, however, as a result of unions and government in consensus embarking on an economic policy that later on turned out to be disastrous. Probably there is some truth in both explanations. As can be seen from Table 13-3, the government itself contributed to the cost crisis by rapid increases of the payroll tax. Economic policy was also extremely expansionary at this time, which contributed to a fast wage drift. Another important fact is that in the years with the highest cost increases, the government in its role as employer took the initiative and made wage deals on a high level.

During these years the rate of inflation was high. As the progressive income tax schedule was not indexed, adjustments had to be made each year. The government integrated these adjustments in its policy vis-à-vis the unions. The adjustments of the income-tax schedule were tailor-made to please the blue-collar workers' union. Therefore, tax progression increased during the 1970s. These tax adjustments were thought to induce wage restraint on the part of wage earners. In hindsight, it is clear that they only contributed to a more expansionary fiscal policy and to a fast increase of income tax progression.

## **The Crucial Role of Public Sector Employment**

What in particular gives credibility to the hypothesis that there basically was a consensus between government and the unions during these years is the role of public sector employment. Both unions and the Social Democratic government at that time were aiming at a fast growth of public sector employment. The government had, moreover, committed itself to a policy of full employment. When real wages increased in the

private sector, this necessarily decreased employment in this sector. In order to keep full employment, public sector employment or public sector-financed employment had to be expanded. The rapid cost increases during the 1970s functioned as a vehicle toward an expansion of public sector employment that was a desired goal by both unions and the government.

Since public sector employment grew quickly during the 1970s, public sector wage settlements became increasingly more important for total wage formation. When it comes to wage structure, the government in its capacity as employer has worked toward an egalitarian wage structure in the public sector. This policy has had repercussions on the private sector wage structure. In fact, government wage policy has served as a strong support for a strongly egalitarian solidaristic wage policy pursued by the blue-collar workers' union.

In wage levels, the government as employer often took the initiative after 1970 by striking high deals with the unions on the public sector side. These deals have tended to increase the level also on the private side. This is illustrated by Table 13-4, which gives negotiated wage increases for the whole labour market when both the public sector and the private sector, respectively, have been the wage leader. The table shows that in the years where the public sector has acted as a wage leader, the outcomes of the negotiations have been markedly higher, both for industrial workers and public sector employees. The public sector has thus acted to lift the general level of negotiated wage increases. Total earnings also include wage drift, which is higher for industrial workers than for public sector employees. Therefore, the relative earning position of industrial workers has not deteriorated to the extent Table 13-4 seems to indicate.

## **A Devaluation Regime**

The deterioration of the relative cost position that followed on the fast real wage increases, however, resulted in a serious balance-of-payments problem. Therefore, a series of devaluations were made in 1976 and 1977. After the devaluations, increases in wage costs continued to be high. During this period government and unions obviously had conflicting goals. The most dramatic evidence was the conflict of 1980, which involved both the private and the public sector. Initially, the government took a strong stand as an employer while at the same time it tried to work with tax bribery to make unions more docile. In the end, employers on both sides had to give in. The resulting wage increases of more than 10 percent were too high.

Another 10 percent devaluation was made in 1981, and a 16 percent devaluation in 1982. Sweden thus seems to have moved from an economic policy regime of fiscal Keynesianism to a devaluation regime. Government still takes the responsibility for employment, while unions

**TABLE 13-5 Working Days Lost Directly through Industrial Disputes**  
(annual averages, per 1,000 employees)

	1961-79	1961-70	1971-79
France	253	280	223
Germany	32	15	50
Italy	1,285	1,237	1,338
United Kingdom	385	191	580
Austria	30	48	10
Belgium	187	133	246
Denmark	227	177	283
Finland	410	178	668
Netherlands	26	14	40
Norway	62	77	46
Sweden	33	21	47
Switzerland	2	1	2
Average of six centralized wage formation countries	131	86	182
Average of other countries	357	309	407

*Source:* Unpublished Swedish Employers' Confederation estimates based on ILO, OECD and EEC data.

are given the responsibility for the rate of inflation. The employment goal can no longer be met by further expansion of the public sector. Financing problems in this sector preclude such a strategy. Instead, the government works with devaluations to reach a real wage rate that is consistent with employment expansion in the private sector.

In order to promote wage restraint by the unions, the government is still using tax bribery. This relationship now seems to work the other way around, however. The unions demand certain policy actions by the government as a price for keeping their wage demands within reasonable limits. So far, however, wage-cost increases have tended to remain high (8-10 percent per year).

## Concluding Remarks

Since 1970 wage-cost increases in Sweden have been inflationary and destabilizing. It is not clear whether this situation can be explained by union behaviour or by inflationary policies. Other highly unionized economies with centralized bargaining have managed to reach much lower rates of inflation than Sweden. Economic policies in Sweden by ordinary standards have been expansionary and inflationary. While statutory income policies have not been used in Sweden, the government has in many different ways influenced wage formation. Whatever the intentions might have been, the results are not encouraging (Table 13-5). In its capacity as employer, the government seems to have contributed to additional increases in wage costs.

Generally, government actions underline the weak position governments have had vis-à-vis the unions since 1970. There is no obvious reason why the government should be able to exercise more strength as an executor of a statutory incomes policy. A lesson from the Swedish experience of the 1970s seems to be that the greater the distance between the government and direct wage formation, the better the outcome.

### **Note**

This paper was presented at the symposium "Lessons from Recent European and Australian Macroeconomic Experience" organized by the Macroeconomic Research Section of the Royal Commission on the Economic Union and Development Prospects for Canada, Ottawa, June 8-9, 1984.

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## **Summary of Discussion on Papers Relating to the Role of Incomes Policy in Macroeconomic Strategy**

JOHN MCCALLUM

The following are brief notes of the discussion following presentations by the speakers for Austria, France, and Sweden.

John McCallum suggested that Canada's experience with the Anti-Inflation Board was a success not only in terms of reducing the unemployment costs of controlling inflation (the conventional view), but also in helping to ensure that real wages did not grow at rates faster than justified by productivity. This last point, it was suggested, tied in to the earlier discussions of European real wage rigidities and helped to explain why Canada had not suffered from a similar problem.

Brian Scarfe suggested that the Austrian success may have owed much to the high real income growth that resulted largely from a process of technological convergence with the United States. Now that this source of high growth is largely spent, he wondered whether it would become progressively more difficult to operate a successful incomes policy.

Chris Allsopp commented on the U.K. experience with incomes policy. He noted that (i) the apparent failure of these policies in the past may have been due to overambitious government targets with respect to the feasible level of economic activity; and (ii) longer-term problems may have resulted from the concessions governments made to trade unions in order to secure their short-term cooperation in the incomes policy.

John Crow wondered whether the Swedish policy based on successive devaluations was likely to succeed in achieving a lasting real wage adjustment. Ulf Jakobsson replied that the "jury was still out" on this issue. Crow also asked whether the opinion expressed by John McCallum regarding the connection between the Anti-Inflation Board



and real wages was not out of line with the conventional view that the function of the AIB was to reduce nominal wage inflation. McCallum replied that he thought the AIB played both of these roles, although the real wage effect was perhaps unplanned.

Craig Riddell made the comment that the centralized wage bargaining structures of Austria and Sweden would not be feasible in Canada unless there were massive changes to our institutions. He wondered whether similar effects could be obtained if we in Canada moved toward more synchronization of wage contracts, while at the same time maintaining our traditional degree of decentralization. He also commented on the possibility of profit-sharing arrangements, as well as the possibility that the desirable institutional structures in the labour market may depend in part on the likely relative importance of supply-and-demand shocks in the future.

Georges de Menil, after having acknowledged the apparent relative success of the Delors incomes policy of the 1980s in his initial presentation, suggested that this success had to be set against the longer-run costs of incomes policies. He thought that such costs were important, pointing in particular to the cyclical rigidity of the French price level as compared with the German.

Finally, Clarence Barber noted that the EEC farm policy may have helped to moderate the amplitude of food price fluctuations in Europe as compared with Canada. Georges de Menil pointed to the high level of food prices resulting from this policy, but he did not comment on the question of the amplitude of fluctuations.



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## **Macroeconomic Response to Export: Real Exchange-Rate Shocks**



## **The Economic Impact of North Sea Oil in the United Kingdom**

C.J. ALLSOPP

The exploitation of oil and gas in the U.K. continental shelf has been seen as one of the most important developments affecting the economy — to the extent that it is popularly described as the “North Sea Bonanza.” In the early 1970s the United Kingdom had no oil production to speak of, although gas was already coming ashore in significant quantities. The first major discovery (Forties) was made in 1970, and others followed soon after. The bulk of existing proven reserves was established by 1976. Oil production started to build up rapidly from the mid-1970s, and the United Kingdom became approximately self-sufficient in 1980. North Sea production continued to build up and the United Kingdom is now a fairly substantial net exporter — of the order of 45–50 million tonnes out of a total production of about 120 million tonnes. Production is presently at or near its peak, and, although estimates vary greatly, is expected to decline to (say) 90–100 million tonnes by 1990. In the longer term, estimates and forecasts vary enormously ranging from practically nothing in the year 2020 to continuing self-sufficiency.

The discovery of oil and the build-up of production has coincided with major movements in the world oil price, in 1973–74 and 1979–80, which greatly complicates any assessment of its economic effects. The United Kingdom faced the first oil crisis as an oil importer, though with the knowledge of future production, and the second oil crisis as a self-sufficient producer. One of the apparent paradoxes is that the response of the economy was rather similar in both cases, which requires some explanation. Another feature is that the United Kingdom's real exchange rate rose massively as the build-up progressed and as the price shocks occurred. There is an important question as to whether this was due to oil, to the policies followed, or some mixture of the two.

There is a further issue about whether the build up of North Sea oil justifies, or makes inevitable, structural change in the United Kingdom. The argument, which became politically important, was put by Forsyth and Kay (1980), who used the kind of analysis suggested by Robert Gregory in looking at the effects of the resources boom in Australia. They maintained that since North Sea oil increased the production of traded goods disproportionately, other traded goods sectors, such as manufacturing, would need to contract (their figuring suggested a 9 per cent fall in manufacturing). This would be induced by a rise in the exchange rate, which would also have beneficial terms-of-trade effects. The relevance of their argument to the United Kingdom was attacked by the governor of the Bank of England (Bank of England, 1980).

Generally, North Sea oil can be seen as impinging on the United Kingdom in three main ways: by its effect on GDP, on the balance of payments, and on the finances of the public sector. All three impacts may have major implications for policy, and the effects for the exchange rate, for inflation, and for real activity and employment depend upon the policies followed. A major difficulty is that self-sufficiency coincided with strong anti-inflation policies and the Medium-Term Financial Strategy. Thus, oil cannot really be seen in isolation. Nevertheless, in this paper, the focus is mainly on the effects of oil *per se*: it is impossible to tell how policy would have been modified without it.

## **The Quantitative Impact of North Sea Oil**

The “stylized facts” are outlined here and in Table 14-1. Looking first at GDP, the impact (at 1980 prices) of North Sea oil built up from about £1.7 billion in 1977 to about £9 billion at present. This figure represents about 4½ per cent of GDP. In the future the impact is expected to fall a little, but to remain in the 3–4 per cent range of GDP until about 1990. These figures value oil at approximately the present relative price. (If earlier price figures were used, the impact would be computed as much smaller.) Thus it is seen that oil production is a relatively small contributor to output in the United Kingdom, though by no means insignificant. Its contribution to employment is quite small.<sup>1</sup>

Turning to the balance-of-payments impact, this is normally assessed by assuming that without North Sea oil, domestic consumption would be met from imports. Allowance is made for invisible items, such as interest payments and dividends due abroad. The figures thus show the impact of oil on the balance of payments compared with not having it. The effect is very substantial, about 4 per cent of GDP. Net trade in oil is considerably smaller at about £7 billion, or 2½ per cent of GDP.

The effect on tax revenues is now substantial. It was small in 1978–79 and has now risen to about £9 billion, say 3–3½ per cent of GDP, and about 7 per cent of total government revenue (see Table 14-2). Tax reve-

TABLE 14-1 Oil and Natural Gas Production

North Sea Oil					Natural Gas		Total Oil and Gas			
Production (million tonnes)	Price (\$ per barrel)	Price (£ per tonne)	Value of Oil Production (£bn)	Production (million tonnes oil equivalent)	Value of Gas Production (£bn)	Value of Production		GNP Impact		
						Nominal	1980 Prices	1980 Prices (£bn)	% of GNP	
1977	38	14.2	61	2.3	35	2.1	4.5	6.7	1.7	0.9
1978	53	13.9	54	2.9	33	1.8	4.7	6.3	1.7	0.9
1979	78	20.1	71	5.5	34	2.4	8.0	9.5	3.2	1.6
1980	79	34.6	112	8.8	32	3.6	12.4	12.4	5.1	2.6
1981	90	34.8	129	11.6	32	4.1	15.7	14.3	7.8	4.0
1982	103	33.2	142	14.7	33	4.7	19.4	16.5	8.8	4.4
1983	114	30.0	149	17.0	34	5.1	22.1	17.9	9.5	4.6
1984	114	29.9	145	16.5	35	5.1	21.6	16.4	8.0	3.8
1985	118	31.0	145	17.1	36	5.2	22.4	16.1	7.6	3.6
1986	115	33.0	155	17.8	37	5.7	23.5	15.9	7.4	3.5
1987	110	36.0	169	18.6	37	6.2	24.8	15.8	7.2	3.3
1988	108	40.0	188	20.3	37	6.9	27.2	16.4	7.6	3.4
1989	104	42.0	197	20.5	37	7.3	27.8	15.8	6.8	3.1
1990	99	44.0	206	20.4	37	7.6	28.1	15.0	6.0	2.6

**TABLE 14-2 Tax Revenues and Balance-of-Payments Impact**

				Balance of Payments (oil only)			
	Govt Revenue (£bn)	% of Govt Revenue	% of GDP		Total Impact (£bn)	% of GDP	Net Trade in Oil (£bn)
1977/78	0.2	0.4	0.2	1978	1.3	0.8	2.0
1978/79	0.5	0.8	0.3	1979	3.4	1.8	0.7
1979/80	2.1	2.6	1.2	1980	6.5	2.8	0.2
1980/81	3.8	3.8	1.9	1981	8.7	3.4	3.0
1981/82	6.4	5.8	3.0	1982	10.2	3.8	4.5
1982/83	7.8	6.7	3.3	1983	11.7	4.2	6.9
1983/84	9.2	7.4	3.6	1984	11.5	4.0	6.2
1984/85	9.1	6.9	3.3	1985	11.5	3.9	6.8
1985/86	9.6	6.9	3.2	1986	11.9	3.7	9.3
1986/87	10.1	6.8	3.2	1987	13.5	4.1	8.7

nues are expected to remain at approximately present (in nominal terms) levels through to 1990, declining slightly as a proportion of GDP. Obviously, a more pessimistic production forecast would have marked downward effects on expected government revenue.<sup>2</sup> Most forecasts have government revenue declining very rapidly in the 1990s, as production declines, costs rise, and the tax take falls.

In broad terms, the profile of North Sea oil's impact seems likely to be hump-shaped. Having built up rapidly to more than self-sufficiency, production is expected to decline in the late 1980s and 1990s, though estimates of the rate of fall and of the longer-term prospects differ greatly. Thus the present positive impact on net trade is likely to reverse, giving way to oil deficits over the next five to ten years. Tax revenues are more likely to decline sharply: even if production keeps up, costs are likely to rise, lowering the government's rent element unless world prices also rise (see Table 14-3).

## **The Uneven Profile of Production**

The profile of production means that it is hard to assess the degree of self-sufficiency of the United Kingdom. In approximate terms, however, it is probably best to see the United Kingdom as self-sufficient, rather than as an oil importer or exporter. The Bank of England (1982) has argued that the United Kingdom has proportionate reserves which are roughly similar to the proportion for the world as a whole, an assessment which might be taken as a definition of self-sufficiency. More conventionally, the present value of the expected production profile suggests approximate self-sufficiency; that is, the permanent income stream from the North Sea is similar in magnitude to likely consumption needs. If this

TABLE 14-3 Oil Depletion Rates: Illustrative Cases

	Low Reserves (2175 mt)			Central Reserves (3260 mt)			High Reserves (4350 mt)		
	Production (million tonnes)	% of Reserves Depleted	% Self- Sufficient	Production (million tonnes)	% of Reserves Depleted	% Self- Sufficient	Production (million tonnes)	% of Reserves Depleted	% Self- Sufficient
1985	115	34.7	138	115	23.2	138	115	17.4	138
1990	90	59.3	126	99	39.5	129	113	29.9	136
1995	70	78.8	82	90	54.4	106	100	42.0	117
2000	50	92.5	56	80	67.4	89	95	53.1	106
2010	10	94.9	11	70	79.0	74	80	63.7	95
2020	5	96.0	5	50	93.2	50	85	73.7	86

assessment is correct, then the United Kingdom should regard herself as “better off” than without oil roughly to the extent of self-sufficiency, that is, the amount of North Sea wealth that can be consumed in perpetuity.

One way of making sure that the “right” amount was consumed each year would be by depletion policy, holding production down to consumption needs. This would be a poor policy, however. The production profile and the “consumption” profile should be decided independently, with production depending on economic and technical factors. National and international capital markets should then be used to smooth the profile of the United Kingdom’s consumption of oil wealth. The question of whether this could be expected to happen automatically, via market forces, or whether it would need explicit policy action, is considered below.

## **The Structural Change Argument**

Forsyth and Kay (1980) argued that the “windfall” gain of North Sea oil wealth would require a reduction in the proportionate share of manufacturing in GDP, which would be brought about by a rise in the exchange rate. The analysis was “comparative static” and assumed full utilization of resources. It obviously came under attack from those who felt that dynamic effects were important, and especially from the extreme Keynesian wing of the economic profession who saw North Sea oil as releasing a “balance-of-payments constraint” and thus as allowing a higher level of utilization of resources. It could be argued, however, that though their arguments might have practical force, they were basically missing the underlying point.

A much more fundamental criticism came from the Bank of England (1980), which examined the premises of the argument. The Forsyth/Kay effect depends on the economy being better off, receiving a windfall gain which accrues as traded goods and thus displaces other traded goods. Alternatively, the only way of benefiting from the oil wealth is to export it and get imports instead. But the increased demand will not be just for imports: a large proportion will be for non-traded domestic production. Thus sectors such as manufacturing have to contract, releasing their resources for use in the non-traded goods sector. In the process the exchange rate rises, which also has the effect of strengthening the structural impact due to wealth-increasing terms-of-trade movements.

The bank focussed on the first proposition — that the United Kingdom was better off — on which the whole argument depends. Better off compared with what? Forsyth and Kay compare the United Kingdom with oil with the United Kingdom without oil. Compared with not having oil (at, say, mid-1980 prices), the United Kingdom is, as we have seen, substantially better off. But compared with her own past history, the United Kingdom is not better off: in real resource terms a self-sufficient



United Kingdom in 1980 was paying more for oil than in the early 1970s. In 1970 the United Kingdom devoted approximately 2 percent of GDP to obtaining oil: in 1980 (on the same constant price basis) it devoted 3 percent of a larger GDP to obtain a smaller quantity of oil. Alternatively, the real resource cost of a barrel of oil in 1970 was about \$7, whereas in 1980 it was around \$10–12 on average.<sup>3</sup>

The difficulty about the base of comparison can be seen as arising because of the coincidental build up of production and of rising prices. From a welfare point of view, the United Kingdom in 1980 was consuming about the same amount of oil at higher resource cost. However, the price rises meant that, compared with not having oil (and therefore importing it), the United Kingdom was greatly better off. What happened was that the United Kingdom, like Canada, avoided a loss that applied to others who were not self-sufficient. But the avoidance of a loss certainly does not imply any need for structural change of the Forsyth/Kay type.

The analysis was not wrong, but was, in effect, applied to the wrong country. Applied in reverse to oil-consuming countries it indicates the need to increase the proportion of traded goods to pay for higher price oil. That proposition has been regarded as more or less self-evident since 1974. The United Kingdom's benefit from North Sea oil was the avoidance or postponement of the need for structural change imposed on consumer countries, such as Germany, France or Japan.

There remains the question as to whether there should nevertheless now be a Forsyth/Kay effect, given that the United Kingdom is more than self-sufficient and presently a net exporter. The original analysis of the structural impact fully recognized, however, that it was the permanent impact that mattered, not the year-to-year flow. If the argument above is accepted — that the United Kingdom should be regarded, in present value terms, as approximately self-sufficient — then there should be no structural effect compared with her own past. Indeed, since costs are expected to rise, more resources will be needed in the North Sea, and some “industrialization” may have to occur.

It is now largely recognized in the United Kingdom that the implications of North Sea oil for desirable structural change of the type considered above (de-industrialization) are small, and perhaps go the other way. This does not mean that oil extraction and production has no structural implications: there are many of an obvious kind, including the adaptation of the manufacturing base toward oil-related activities.

## **The Exchange Rate**

Even though the structural change argument as applied to the United Kingdom is wrong, this does not mean that the exchange rate would be unaffected by North Sea oil — in the short run or in the longer term. What it does mean, however, is that if the exchange rate does go up,

inducing de-industrialization, this could well be regarded as undesirable, presenting a policy problem for the authorities and perhaps indicating the need for offsetting policy action.

There have been a number of attempts to estimate the exchange rate effects of North Sea oil using, for example, some of the U.K. models (e.g., HM Treasury, National Institute of Economics and Social Research, London Business School). They are not, however, very informative since they all track actual developments so poorly. The Treasury (Byatt et al., 1982) produced an estimate of the effect of the \$15 per barrel increase in the price of oil in 1979–80 of 10–15 percent on the real exchange rate, which they indicate might be at the top of the range of plausible estimates. An LBS study (Budd and Ellis, 1983) indicated an effect of about 8 percent. Quite generally, it can be argued that elasticities in trade, and those applying to domestic tradeable and non-tradeable sectors, are likely to be large in the long run, suggesting small effects “in equilibrium.” Most of these studies treat the United Kingdom more or less in isolation, given the rest of the world, though some of the simulations include world recession effects. This is unsound. A three-country model is necessary even to begin to analyze the effects.

Retaining the assumption of a self-sufficient United Kingdom, the price impact of oil can be seen as analogous to a tax levied by oil producers on oil consumers, with the United Kingdom unaffected. The question is: What happens to the U.K. exchange rate if Country A taxes Country B with associated resource and income transfers? Without knowing much about countries A and B, the simple answer is nothing. The more complicated answer is that the effects would depend on the relative propensities to import, directly and indirectly, from the United Kingdom, and the relative portfolio preferences for U.K. denominated assets if the transfer is financial. Even the sign of the effect is ambiguous until empirical assumptions are made.

The situation is complicated in practice since there are special characteristics of OPEC and of the consumer countries that need to be taken into account. One possibility is that real resource transfers to OPEC increase the world demand for U.K. exports, if the United Kingdom gains disproportionately from OPEC demand. This is a long-run effect and is likely to be small. If it occurs, it is entirely beneficial, and the implied terms-of-trade change could produce a mini-Forsyth/Kay effect (Byatt et al., 1982). More importantly, in the short term, before the OPEC surpluses are spent, there is an asset transfer to OPEC, and there are reasons for supposing that the demand for U.K. denominated assets would rise. (It is important to note that if self-sufficient, the oil price rise does not affect the U.K. balance of payments on current account, so that the supply of sterling-denominated assets does not change.) There is some evidence that the United Kingdom's exchange rate may have been affected for this kind of reason both after OPEC I and OPEC II. The effect, if it exists, should mostly be temporary.

Reactions overseas, such as recession in consuming countries, should (if the United Kingdom were unaffected) pass some of the deficit problem on to the United Kingdom, for conjunctural reasons, and this transfer should weaken the effect. In practice, however, the United Kingdom's recession was both earlier and deeper than in other OECD countries, as outlined in the companion paper on macroeconomic policy in the United Kingdom (paper 8).

Returning to the asset or portfolio side of the picture, self-sufficiency does mean that, compared with consumer countries, the risks attached to the United Kingdom's exchange rate might be thought different from that of other countries, especially in the face of oil price shocks. This in itself is a reason for diversion of international portfolios in favour of sterling-denominated assets.

An even more serious problem may arise because of the "hump" in U.K. production, and the strong current account effects over the recent past (the amount of net trade in oil is an indication of the extent to which production is above consumption, though consumption is presently depressed by the effects of recession and the decline of manufacturing). One possibility is that financial markets are fully rational, and forward looking, and that operations are unconstrained by liquidity, imperfect capital markets, and the like. On such a view the short-run "hump" should have no effects. It is highly unlikely, however, that the assumptions apply — and this is not to deny powerful effects from expectations. If they do not, current account and counterpart asset effects could raise the exchange rate during the period of peak production.

The conclusion must be that the exchange rate effects of oil "should" be minor, especially in the longer term. But potential problems arise from possible asset market and current account effects over the medium term. Looked at in relative terms, current account effects in particular may have been rather large: in 1981 the United Kingdom's current account surplus was about \$12 billion, when most other OECD countries were running substantial deficits; indeed compared with Germany, the United Kingdom was in surplus by about \$20 billion in both 1980 and 1981. The United Kingdom's relative surplus reflected, of course, both the absence of oil effects and the domestic recession.

The policy problem posed by relative current account swings and by asset market effects are considered below.

## **Domestic Financial Implications**

It has been seen that the tax revenue effect of North Sea oil has been large. Again considering the United Kingdom as self-sufficient (i.e., as she was in 1980), the tax flow arises because the world price, which is approximately matched in the United Kingdom, is substantially above the resource cost, including the profit of oil producers. The difference accrues as "rent" to the government.

When the price rises, the rent element also increases. There is no doubt that a "neutral policy" would be to lower other taxes, such as value-added tax, in a compensating manner, which would have the effect of retaining the relative price rise for oil and oil products but offset any overall fiscal effect. Such a policy would neutralize any demand deflationary effects on the non-oil private sector, as well as offset the price raising effect (which in practice is highly inflationary if expectations and nominal wages react). As explained in the companion paper on macroeconomic policy in the United Kingdom, this was not done, so the oil price impact in 1978–79 can be seen as deflationary and inflationary as in other countries. The OPEC "shock" was, in effect, internalized in a self-sufficient economy. This goes some way to explain why the effects of the two oil price rises were rather similar in the United Kingdom in spite of self-sufficiency. There is, of course, no presumption in the United Kingdom any more than in the world economy that deflation was undesirable: it might be justified by the need to curb inflation, though the initial price raising effects of the non-offsetting policy are unfortunate to say the least.

As also noted in the paper on macroeconomic policy, there was a complication in 1979 and 1980 in that the tax revenue effect was delayed. Immediate offset would have, temporarily, raised the public sector borrowing requirement, which was subject to government "targets" (more strictly, "consistent forecasts") under the Medium-Term Financial Strategy. There are several views. One is that the government should have offset to smooth the effect on the private sector. Another is that it did, and the MTFs was formulated taking into account oil effects (i.e., that the additional deflation was desired). A third, which is perhaps most consistent with government pronouncements, is that the private sector could be expected to see what was happening and to discount the initial adverse effects on their financial position in the knowledge, or expectation, that the tax effects (or the fiscal adjustment) would come through in the future. The latter view seems very optimistic about private sector behaviour and the perfection of capital markets. If it were not justified, then the policy followed can be seen as either intended or mistaken deflation.<sup>4</sup> Deflation, it may be noted, would add to any exchange rate rises due to asset market effects and effects on the current account.

The situation is substantially different when the effects of the "hump" in production are considered. In the period when production exceeds permanent consumption, a substantial extra "rent" accrues to the public sector. On the face of it this would justify reduced fiscal deficits over that period, which could rise again when production declined and tax revenues fell. It is important to realize, however, that the additional rent accrues to the government as the result of sales of excess oil production abroad — that is, the revenue accrues effectively as foreign exchange. The best way to see why this is important is to consider a neutral policy toward the disturbance of North Sea oil.

## A Neutral or Offsetting Policy

It is reasonably clear that a neutral policy toward North Sea oil and price shocks for a self-sufficient economy would involve offsetting the impact of oil price rises by lowering indirect taxes elsewhere, so that the fiscal impact is zero and the effect on the general price level is zero. A special case would be to leave domestic oil prices unchanged when world prices rose, which can be seen as a tax increase on oil balanced by a tax decrease on oil. That would be non-optimal, however, and generally the relative price increase should be accepted whilst other taxes, such as value-added taxes, were reduced. There could be a case, however, for smoothing domestic oil prices, especially if world prices fluctuate.

When production is above domestic (permanent) consumption, and additional tax revenues accrue, there is no reason to offset the addition: the tax is paid by foreign residents and is a benefit to the economy. As noted, the tax accrues as foreign exchange and will appear as a current account surplus, as compared with the base line of production according to needs, and all other things being taken as equal.

An obvious neutral policy would be for the public sector to accumulate foreign assets to the extent of the current account and tax surplus. What would then be happening is that a reduction in the public sector's wealth — its claim on the North Sea — would be balanced by an increase in another asset, in this case foreign financial assets. Both North Sea oil and foreign assets, unlike domestic national debt, are "outside assets" for the British economy. The neutral policy outlined would involve the running down of one and the building up of another.

Of course, if the economy really is just self-sufficient in present value terms, consumption by the private sector (its capitalized value) exhausts the wealth of the North Sea. Thus the wealth of the public sector in the North Sea is zero, as it should be. But when production runs ahead of consumption, the wealth of the North Sea is being run down: this can be balanced if the public sector accumulates other assets instead. These assets are then used to support the consumption of oil by the private sector when production in a future period is less than consumption. This policy of using the international capital market drives a wedge between the production profile and the consumption profile. It should be noted that it is the "store of value" function of financial assets that is particularly important in balancing demand and supply over time. One store of value (oil in the North Sea) is being replaced by another (e.g., U.S. Treasury Bills). Obviously it is also important that the store of value should have as high a return as possible.

There are some alternatives. One is via a depletion policy which limits production to permanent consumption. This would normally not be optimal, for all sorts of technical and economic reasons. It is generally better to use the (international) capital markets to allow production to exceed or fall short of consumption.

Another alternative is that the excess oil production should be balanced within the current account by imports of capital equipment. This would be a store of value and in the first instance the choice might seem to depend only on the (social) rate of return on additional capital in the United Kingdom as compared with the return obtainable in international markets. In terms of balancing the flows, however, fixed capital may appear somewhat inflexible. Alternatively, it may not seem right that the time profile of (additional) investment should depend on the vagaries of the oil production profile. In general, even if additional investment is undertaken, it would seem there is still a role for the international capital markets in the smoothing process.

The kind of policy prescription that this line of reasoning leads to is that, in the period of excess production, the public sector should accumulate foreign assets as the counterpart, and, over time, translate some of these assets (via imports) into domestic capital. That is, indeed, just what is done by the major surplus countries. The only difference is that since the United Kingdom is approximately self-sufficient, the resource of oil, instead of being converted into a stream of consumption goods (directly and via the accumulation of imported capital), is best seen as being converted into future oil, or oil substitutes.

The key question is whether this balancing act can safely be left to the private sector in the absence of an official policy of offsetting the impacts. It is necessary to see what would be involved. First, the tax revenue to the government (the counterpart to the exceptional temporary current account surplus) would accrue in sterling, which means that the foreign exchange receipts have to be converted, through the market, into sterling. This clearly raises the demand for sterling compared with the neutral case, and the exchange rate may rise.

Probing a little more deeply, the public sector in the "neutral" case obviously gains owing to its increased revenue and the Public Sector Borrowing Requirement (PSBR) falls. But the benefit to the public finances is used to accumulate foreign assets (for simplicity take these as reserves of currency, though they might be other foreign assets or a reduction in indebtedness to foreigners). The result is that though the PSBR falls, domestic holdings of national debt (gilt-edged stock and other public sector liabilities) remain unchanged. Compare this case with the situation if the public sector does not accumulate foreign currency. In that case, in effect the public sector uses its foreign currency to buy back its own debt to the private sector. National debt thus falls, and is replaced in residents' portfolios by foreign currency (or other foreign assets). In order to induce the switch, the exchange rate may need to rise (or domestic interest rates may need to fall relative to yields obtainable abroad). Again it is notable that the private sector's financial wealth is unchanged, except for capital gains or losses in the process of portfolio adjustment, and so is sterling M3 (since neither gilt-edged

stock nor foreign currency is part of £M3).<sup>5</sup> Clearly, in accounting terms one would see the balance-of-payments surplus due to (net trade in) oil, which accrues to the public sector, balanced by a private sector capital outflow.

A further possibility, of course, is that the public sector “uses” its foreign exchange receipts to buy back sterling-denominated assets from foreigners. In this case also there would be exchange market effects (as foreigners were persuaded to give up sterling assets in exchange for “dollars”), but the domestic private sectors’ portfolio would be unaffected. Generally the government would not know (until the statistics came in) whether it was domestic or foreigners’ portfolios that were switching. But what matters is that the total supply of sterling-denominated assets to be held within portfolios at home or abroad is diminished owing to the impact of oil on the current account. The effect on the exchange rate depends, of course, on the relevant elasticities of substitution: in the short term particularly, the exchange-rate change necessary to induce the substitution may be quite large (unless relative interest rates change), especially as the current account effect itself may increase the attractiveness of sterling assets to market operators.<sup>6</sup> Thus, a non-offsetting policy may have substantial exchange market effects.

The neutral policy, of course, amounts to exchange market intervention. What is being suggested is that intervention of a generalized kind (i.e., not just in terms of building up the reserves) should be used to smooth the oil profile. It is clear that the amount of intervention might have to be large during the “hump” in oil production.

The analysis can of course be generalized to deal with other temporary (or, in principle, longer-term as well) impacts on the demand for sterling-denominated assets. For example, if there is an increased demand for sterling assets during a period of OPEC surpluses, an offsetting policy of (generalized) intervention could be adopted by the authorities — which simply amounts to supplying the assets demanded and taking foreign assets in return.

## **The Feasibility of Large-Scale Intervention**

In principle, intervention on any scale to lower an exchange rate (compared with what it would otherwise have to be) is possible. (We have only to observe the massive accumulation of foreign assets by OPEC to show the feasibility.) It is, however, often objected that intervention interferes with money and that the only external policy compatible with domestic monetary targetry is a free float.

This argument is false. It has already been seen that whether or not an offsetting policy toward oil surpluses is adopted need have no effect on money. The point is even clearer if an increase in OPEC demand for sterling assets is considered. In principle, the government can supply



additional sterling assets and take foreign assets in exchange. £M3 is unaffected. Even if the increased demand is for sterling bank deposits, and these are created via the exchange equalization account, the end point is that externally held sterling balances rise. These are not part of the domestic money supply: not part of £M3 nor M3. Particularly if gilts were sold to foreigners for foreign currency, sterilization is not only possible but automatic.

The problem, or the supposed problem, lies elsewhere. When the government intervenes, it may not know whether it is transacting with foreigners or with domestic asset holders. In the latter case, it may be taking foreign currency from the domestic sector and replacing it with £M3 deposits. £M3 rises, though M3 remains unchanged.

The key to understanding this issue is to get the perspective right. A policy of non-intervention in periods of current account surplus may mean that domestic residents transfer out of £M3 balances into foreign currency. (Again M3 is unaffected.) The effect would be observed as a negative external contribution to money. Obviously, if it occurs, it may be helpful in meeting a £M3 target. But driving the private sector into holding foreign currency is a very odd way to try to control money. (If they are regarded as close substitutes, it would be natural to target M3 rather than £M3, in which case the effect disappears.) It should certainly not be taken as meaning that sterilized intervention is unfeasible, even if large.

In fact, it may be asserted, the problem of sterilizing intervention is as easy or difficult as controlling domestic money. Intervention per se makes very little difference. There may, however, be important indirect effects. In particular, a high exchange rate may induce negative externals on money, though hardly in a predictable way, and may have effects on activity and prices which do affect money. But whether or not a high exchange-rate policy is desirable in the circumstances of the time is quite another question, which goes far beyond the feasibility of sterilized intervention.

Finally, the neutralizing policy outlined, even though it involves large-scale intervention, is quite different from a policy of fixing the exchange rate according to some target. The suggestion is that the known disturbances should, as far as possible, be neutralized. Apart from that, the exchange rate could be left to float. Thus, the market would not be given one-way bets, which are damaging and affect money as domestic residents switch in and out of foreign currency. The problems associated with fixed exchange rates, or targets, should not be taken as implying that intervention is never justified.

The main danger is that such a policy might not work since market operators could see through it and the relevant elasticities might be large. These are also the circumstances when markets might be expected to "get it right" without intervention. But intervention, if practised,



would not do any harm. And if markets are as imperfect as they appear to be, it might do a lot of good (assuming a lower exchange rate to be desirable).

## Conclusion

A neutralizing policy has been outlined. Had it been followed, some, but probably not all, of the effects of oil on the economy might have been offset. A non-offsetting policy seems likely in practice to produce large swings in the exchange rate (especially upward if combined with domestic deflation and world imbalances). In the short run, those swings induce compensatory capital flows. Over a longer time period, adjustments are likely to occur through the current account (as exports decline and imports rise following a rise in the real exchange rate), with damaging effects on the real economy. It is not necessary to live with the "Dutch disease."

## Notes

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1. The net contribution to GDP is assessed using the method employed by the Treasury, which assumes that resources of labour used in North Sea production have alternative uses. The gross contribution would be substantially larger, as is apparent from the figures for the total value of production (i.e., roughly twice as large).
2. A number of forecasts have oil production in 1990 at about 70 million tonnes rather than 100 (shown in Table 14-1). This decline has important effects, especially on projected net trade.
3. There has been some argument about whether the United Kingdom had "adapted" to the first oil shock by 1976 (the base of Forsyth and Kay's calculations). However, this is really a detail. Given the known prospects, it would have been wrong to adapt.
4. It may be noted that an offsetting policy would have been safer if deflation (and inflation) were not intended. Presumably, if the private sector were rational enough to discount a disturbance of its own cash flow, it would have been rational enough to discount an offsetting strategy.
5. Note, if the private sector bought the foreign currency with £M3 deposits, £M3 but not M3 would fall.
6. So too may the effect on the PSBR. The effect is, however, ambiguous depending on whether a low PSBR is taken as a signal that inflation will be lower in the future or that interest rates will fall.

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## Natural Gas and the Dutch Economy

MICHAEL ELLMAN

### The Size of the Dutch Natural Gas Sector

In the late 1950s a very large deposit of natural gas was discovered in the north of the country. Development began in 1963. Since then some small additional gas deposits have been found, both onshore and offshore. In addition, oil has been discovered both onshore and offshore and is being developed. Production of gas grew very quickly in the middle and late 1960s and early 1970s. From the beginning a high proportion of total output has been exported, and in 1975–81 exports exceeded domestic consumption. Export prices are now indexed to world oil prices. Output and exports peaked (in physical terms) in 1976. Domestic consumption in physical terms is now 12 percent below its peak and expected to remain roughly stable until well into the next century. Exports in physical terms have declined approximately 18 percent from their peak. Under the existing contracts, exports will remain substantial for the rest of this decade, but will decline rapidly in the second half of the 1990s and come to an end around the year 2000. The Netherlands is now over peak and on the decline in the utilization of a quantitatively large finite natural resource which generates a large rent income. It has already experienced the shock of the impact of this sudden large new source of income. Now it must adapt to the loss of this income.

At the present time, Dutch natural gas output is equivalent to about 7½ percent of the national income. This is considerably greater than the contribution of North Sea oil and gas to the U.K. national income (see Allsopp paper in this volume). Natural gas exports are about 8 percent of visible exports. Profits received in the natural gas sector are about two-thirds of all profits generated in the economy. In addition, natural gas

provides about a fifth of central government revenue. Some relevant statistics are set out in the tables in the Appendix.

## Previous Discussion

I have been interested in this question since the mid-1970s. I published a paper about it in an English journal (Ellman, 1977), which was intended as a warning to Britain that the possession of substantial oil and gas bubbling up out of the North Sea would far from end all Britain's problems. At that time North Sea oil and gas were widely regarded as a bonanza which would cure the chronic and debilitating "British disease." My paper presented a counterview. Nothing that has happened since then has led me to change my mind on the matter.

Subsequently, in 1980, I gave a paper at a conference in Mexico (Ellman, 1981). It was intended to point out to Mexican policy makers that going full steam ahead with the development of an oil industry could generate certain economic problems. Oil, it was suggested, is not necessarily an unmixed blessing. Nothing that has occurred in that country since then has led me to change my mind on the matter.

Recent years have seen an extensive academic discussion on the possible economic impact of a significant rent-producing natural resource sector. The *Economic Journal* in 1984 (March and June) published two articles about so-called "Dutch disease." These are only two of the most recent contributions. Most of these papers, of course, are just taxonomic exercises. They classify various ways in which an income-producing sector that employs almost nobody and has a big impact on net exports can affect the economy. In addition, there is a considerable interest in the question among policy makers in a number of countries where it is thought to be relevant, for example, New Zealand, Australia, Mexico, and Norway.

## Is There a "Dutch Disease"?

In view of the widespread discussion of the "Dutch disease," it is worth noting that in the Netherlands itself economists and policy makers are traditionally very skeptical about the relevance of this diagnosis of Dutch economic problems. This is not just a question of terminology. It is a question of whether the Dutch economy really has been affected in the way which is assumed in the international literature.

According to the official doctrine in the Netherlands, the main internal cause of all the economic problems the country now faces are the trade unions and their behaviour in wage bargaining. It was, according to this view, the big wage increases of the 1960s and 1970s which undermined the country's competitive position and employment level, weakened the market sector, and, by forward shifting of increases in direct taxes and social security contributions, destroyed the viability of the welfare state.

The non-existence of a "Dutch disease" has recently been argued by van Rijckeghem (1982). First, the experience of the Netherlands in the 1970s and 1980s has been similar to that of a number of other small West European countries such as Belgium, Sweden and Denmark. Therefore, there is no need to introduce a uniquely Dutch factor to explain the miserable Dutch performance. Second, although the nominal exchange rate appreciated in the 1970s, this was largely offset by declines in relative prices, so that international competitiveness did not suffer.

As far as the first argument is concerned, there clearly is some substance in it. Nevertheless, it must also be remembered that the deterioration from the trend in the Dutch case has been exceptionally serious. In the 1950s and 1960s the Netherlands was one of the fastest-growing OECD countries and had virtually permanent full employment. Now it has very sluggish growth and the third worst unemployment level in the OECD. As far as the second argument is concerned, this depends very much on the precise data used and in particular on the precise base-year period. Taking 1970 as a base and considering unit labour costs in manufacturing, by the end of 1976 these costs had deteriorated by 15 percent relative to competitor countries (OECD, 1984, p. 19). In 1970–76 the nominal rate of exchange of the guilder appreciated by 30 percent and its effective appreciation, deflated by consumer prices, was about 25 percent (*Advies*, 1983, p. 19). In the period 1970–77 the impact of natural gas on the balance of payments grew most quickly (*ibid.*, p. 18). The sharp real appreciation of the guilder in the early 1970s was a significant blow to the internationally competitive sector of the economy and accelerated structural change.

## **Macroeconomics versus Distribution**

Whereas in the international discussion of the "Dutch disease" attention has focussed on macroeconomic effects of gas revenue, in internal Dutch discussion pride of place has been given to distributive questions. First, there is the question which was very important a few years ago about the distribution of the rent between the companies that found the gas and the government. The amounts involved are very large, both for the companies and the government. Then there has been the question of the price which the importing countries ought to pay. The Dutch government, naturally, has been trying to drive the export price up as high as possible. This is very popular with the voters because it is the price the foreigners have to pay. After both world oil shocks the export contracts were renegotiated to reflect the new market situation. There is also the question of the price that should be charged for domestic retail use. Since the retail price of gas has become a significant item in family budgets, this decision is a political hot potato. Finally, there is the question about whether a particularly favourable price should be offered to sectors which are energy-intensive.

The Netherlands has a significant agricultural sector. One branch of it is horticulture, which is mainly concerned with growing vegetables in greenhouses. Energy is an important production cost. The government made what everyone in Holland regarded as reasonable transitional arrangements to reduce the effect on this sector of shocks resulting from the increase in world market prices. Some of Holland's partners in the European Community took a different attitude to this matter and started complaining about the unfair competitive advantage Dutch horticulturists were receiving.

## **Official Views on Macroeconomic Effects**

Although distributional questions have dominated public discussion, macroeconomic questions have not been entirely neglected. The latest official wisdom on gas policy (*Advies*, 1983) gives considerable attention to them, noting that there have been important negative effects. While the welfare level of the country is significantly higher with than without the gas because of the additional income which it generated, there are problems resulting from the way the money has been spent. These problems concern the exchange rate, public sector employment, transfer payments, real wages, and imports.

The sharp appreciation of the guilder in the early and mid-1970s was simultaneous with the rapid growth of the value of natural gas output. It is not easy, however, to disentangle the effect of natural gas from other factors influencing the exchange rate — for example, the autonomous policies pursued by the central bank. Hard currency sentiments are widespread and influential. In the 1930s Holland was in the gold bloc. The central bank gives great weight to hard currency aspirations and has considerable independence in monetary policy. Nevertheless, the impact of natural gas on the current account was undoubtedly a significant factor.

In my other paper for this symposium, on recent Dutch macroeconomic experience (paper 3), I pointed out that the 1970s saw a significant and important increase in employment in the public sector. It is difficult to imagine that this could have been so large, or sustained so long, without the money and optimism which the government derived from the energy sector. Furthermore, the early 1970s, when the effect of the gas revenue increase was most rapid, was a period in which the legal provisions governing the transfer payments system were being expanded and made more generous. This loosening up was undoubtedly facilitated by the rapid increase in government natural gas revenues. In addition, there was an increase in real wages resulting from the extra income that was flowing into the country and into the state budget. There was also an increase in imports, generated by the extra income. It is generally reckoned in Holland that the import coefficient of natural gas income is between one-half and two-thirds.

The additional imports, combined with the exchange-rate effects, greater employment in the public sector, increased transfer payments and real wages, and higher energy costs, obviously had important structural effects. The natural gas sector functioned as an "internal OPEC." Together with the organized workers, it squeezed profits in the internationally competitive sector. This was an important factor explaining the decline in the market sector in the 1970s.

## **An Overexplained Recession**

It would be a big mistake to blame all the problems of the Dutch economy on natural gas. The marked deterioration in OECD growth rates is very important for a country that exports half its national income. There is also the rapid growth of the welfare state, which has turned out to have some unexpected consequences. In general, fitting the natural gas effect into a convincing overall account of the 1970s and 1980s is difficult because the stagnation is an overexplained phenomenon (Pen, 1983). There are a variety of different but interrelated phenomena which can be used to explain the stagnation, such as overinvestment, the negative balanced budget multiplier, the inflationary bias of a modern capitalist economy, restrictive fiscal and monetary policy, the decline in profitability, the "Dutch disease," the growth of the public sector, and the behaviour of commodity prices.

In order to clarify the situation, it might seem desirable to disentangle the macroeconomic effects of natural gas by simulation on a reliable model. Although Holland has good macroeconomic models and a long model-building tradition, in fact a simulation cannot give unambiguous answers. The accuracy and reliability of the models has come under massive criticism from different points of view in the last ten years. In fact, public and official confidence in them is at a low ebb. Public confidence has been undermined by the criticism they have received from academic economists and by their failure to forecast turning-points well. Official confidence has been undermined because of their failure to give much weight to the factors that dominate the current official vision of how the economy works. Furthermore, the models could only capture the effects of a major shock if it were assumed that it was not a major shock, that is, that the behavioural relationships of the model were valid both for marginal and major changes. Accordingly, precise and reliable estimates of the impact of the natural gas on macroeconomic variables such as the growth rate and the level of employment cannot be given.

## **Recent Developments**

It may be useful to give some information about the most recent developments affecting the Dutch natural gas sector. There has been a significant increase in proven reserves. Probable reserves are now estimated to be

sufficient at present levels of domestic demand for about another 60 years. This means that the time period involved, from the beginning of the natural gas utilization to the end, may well be a century. The increase in estimated reserves has greatly reduced the "hump" problem. In addition, oil has been discovered and is being exploited. In 1983 the country was 12 percent self-sufficient in oil. By mid-decade the Netherlands will be 25 percent self-sufficient.

We might think, on the basis of the international discussion of the "Dutch disease," that the government would be extremely alarmed about the possible adverse macroeconomic effects of this extra gas and oil. In fact, it is very pleased. It needs the extra money.

In the 1970s the government began making plans to import energy, in particular gas, on a large scale. This reflected prevailing expectations about future price movements and reserves. Current thinking is very different. Everyone realizes that gas prices can move both ways. In addition, estimated proven reserves have grown. Consequently, the plans for importing natural gas from Algeria, Nigeria and the Soviet Union have all been abandoned. The only imports are from Norway and currently run at about 6 percent of domestic consumption. The remaining gas due under the present Norwegian contracts is equivalent to one year's domestic consumption.

Related to the changed policy toward imports is a changed policy toward exports. The government has become very keen, just as it was before the first oil shock, to stimulate exports of natural gas. It is currently negotiating with neighbouring countries an extension of the export contracts that would otherwise have come to an end in the late 1990s. In addition, it is engaged in negotiations with the United Kingdom to secure an export contract to that country.

The result of these phenomena — an increase in proven reserves, oil discoveries, elimination of plans for substantial gas imports, stimulation of gas exports — has been to make the transition to a future without gas much more manageable. A big short hump in production can obviously create a temporary mining-town effect. Spreading the hump over a longer period reduces the effect. At the present time the spectre of the Netherlands as an abandoned former mining town before the end of the century has been much reduced since the result of these new developments has been to postpone the end of the indigenous natural gas and oil until well into the next century.

Besides these positive developments, there is a new problem that has arisen. Both government revenue and the balance of payments have become very sensitive, via both quantities and prices, to fluctuations in gas exports. The Dutch export contracts link prices to world oil prices and allow (within certain limits) quantities to be determined by overseas demand. Consequently, recession overseas generates a procyclical movement of government revenue. This accentuates the normal pro-



cyclical movement of government finances and reduces the fiscal room for stabilizing policy.

## **Some Policy Issues**

Present policy with respect to macroeconomic aspects of the natural gas sector is to attempt to gain the obvious benefits, higher income and exports, while avoiding the macroeconomic problems. For example, it is now thought that in the 1970s too high a proportion of the additional income went to consumption and too little to investment. Present policy is to increase the share that goes to investment. This takes several forms. One is overseas investment. The Netherlands is a large international creditor and has a steady outflow of capital. These investments generate income and, if all goes well, form a substitute for natural gas in the ground as a store of value. There are significant subsidies for internal investment. Corporation tax has been cut (from 48 to 43 percent) and employers' social security contributions are being reduced, so as to make domestic investment more attractive.

As pointed out above, in the first half of the 1970s, partly related to the rapid growth of natural gas revenues, the Netherlands experienced substantial nominal and effective revaluations. In the 1980s the Netherlands is experiencing a real depreciation despite a stable or strong currency relative to its main trading partners. This results from a much lower increase in money wages than in most competitor countries. In 1979–83 the Netherlands achieved a 12 percent real depreciation, which is pretty good for a country with a large and growing current account surplus.

An interesting feature of the Dutch experience with natural gas concerns policy cycles. Policy cycles have been significant for natural gas, as can be seen from looking at the government's attitude to exports. When the gas was first discovered, at the end of the 1950s, it was thought that nuclear power would soon take over, which would make energy tremendously cheap and therefore it was necessary to sell as much gas as possible before it became worthless.

After the first oil shock of 1973/74, and partly under the influence of the Club of Rome, the Dutch government decided that domestic natural gas was an immensely valuable resource that should be saved for the future. Energy prices, it was assumed, could only rise. Hence, the government became much less interested in export contracts. This attitude was accentuated by the second oil shock of 1978/79. Plans were made not only to renew the existing contracts when they expired but also for large-scale imports. In the early 1980s, under the impact of the recession, both prices and quantities exported declined, with severe consequences for the national budget. Policy was reversed, most of the import plans were cancelled, interest was expressed in extending the current export con-

tracts, and new markets were sought. On the whole, the government has acted as a destabilizing speculator. When the market was strong and exports easy to arrange, it has not been interested. When the market was weak and competition strong, it has tried to increase its exports.

Finally, I wish to draw attention to the importance of the time period over which the effect of large energy discoveries are experienced. If we have a relatively short period from the beginning to the end of exploitation, with a marked hump, then we can generate a mining-town effect for a whole country. This can be very disagreeable. Conversely, if we can spread the effect over a century with a long plateau, then any resulting macroeconomic effects will be less disruptive.

As the natural gas income declines, the structure of the non-gas sector has to change back toward tradables in order to compensate for the loss of exports and import substitutes. The Dutch government is trying to achieve this structural change by an effective depreciation of the currency (i.e., by keeping money wage increases below those in trading partners), encouragement for the discovery and exploitation of new oil and gas deposits, cuts in public sector employment and conditions of employment, and greater freedom for the market sector (see my paper on recent Dutch microeconomic experience). These medicines are certainly unpleasant (because of the decline in real wages, real social insurance, and welfare benefits which they imply). Results so far are mixed. Relative costs have fallen significantly and profits have recovered strongly. At the same time, growth is slow and unemployment continues to rise.

## **Conclusion**

In the first half of the 1970s the Netherlands was an example of how not to adapt to a sudden large increase in rent income. In the 1980s will it be an example of how to adapt to a decline in rent income? It is too early to say. The outcome depends on the extent to which the market sector responds to the opportunities available and to external factors. The expansion in domestic oil production, increase in proven gas reserves, and increase in planned net gas exports reduce the magnitude of the structural changes necessary in the 1980s and 1990s.

## Appendix

**Table 15-A1 Domestic Natural Gas Sales, 1963-92<sup>a</sup> (billion m<sup>3</sup>)**

1963	0.8	1978	44.0
1964	1.1	1979	43.3
1965	1.9	1980	39.6
1966	3.3	1981	37.7
1967	5.9	1982	35.5
1968	9.6	1983	38.5
1969	14.0	1984	38.5
1970	20.0	1985	37.7
1971	25.9	1986	37.4
1972	34.0	1987	36.6
1973	38.1	1988	34.0
1974	40.7	1989	34.0
1975	41.4	1990	34.0
1976	42.9	1991	34.0
1977	43.7	1992	34.0

Source: *Gasunie jaarverslag 1983* (Groningen, 1984), p. 20.

a. The figures are read off a chart, hence some inaccuracies are inevitable.

**TABLE 15-A2 Natural Gas Exports, 1963-92<sup>a</sup> (billion m<sup>3</sup>)**

1963	0.2	1978	44.4
1964	0.2	1979	48.8
1965	0.4	1980	47.4
1966	0.5	1981	42.6
1967	1.5	1982	34.0
1968	4.4	1983	34.8
1969	7.4	1984	33.3
1970	11.1	1985	31.8
1971	17.0	1986	30.0
1972	23.7	1987	30.0
1973	31.1	1988	30.0
1974	40.7	1989	30.0
1975	45.9	1990	30.0
1976	50.3	1991	30.0
1977	50.0	1992	30.0

Source: *Gasunie jaarverslag 1983* (Groningen, 1984), p. 22.

a. The figures are read off a chart, hence some inaccuracies are inevitable.

**TABLE 15-A3 Nominal and Real Trade-Weighted Rate of Exchange of the Guilder (annual averages, 1977 = 100)**

	1970	1977	1979
Nominal Trade-Weighted Rate of Exchange	78.0	100.0	104.9
Real Trade-Weighted Rate of Exchange (nominal rate deflated by relative wages in manufacturing)	80.8	100.0	100.9

Source: *Miljoenennota 1984* (The Hague, 1983), p. 30.

**TABLE 15-A4 Natural Gas and the Balance of Payments**  
(billion guilders)

Year	Net National Income	Current Account Balance	Direct Effect of Natural Gas <sup>a</sup>	Net Effect of Natural Gas <sup>b</sup>	Current Account Balance Adjusted for Net Natural Gas Effect
1964	65.0	-0.1	-0.2	—	—
1965	62.5	0.1	-0.2	—	—
1966	67.8	-0.7	-0.1	—	—
1967	74.7	-0.3	0.1	0.04	-0.3
1968	82.7	0.3	0.5	0.2	0.1
1969	93.9	0.1	1.0	0.4	-0.3
1970	105.4	-1.7	1.4	0.6	-2.3
1971	118.7	-0.4	2.1	0.8	-1.2
1972	134.5	4.3	2.7	1.1	3.2
1973	154.9	6.7	3.9	1.6	5.1
1974	174.7	6.0	10.7	4.3	1.7
1975	189.3	5.2	10.2	4.1	1.1
1976	218.3	7.6	12.7	5.1	2.5
1977	251.1	2.1	14.1	5.6	-3.5
1978	270.0	-2.4	12.9	5.2	-7.6
1979	286.3	-3.5	17.4	7.0	-10.5
1980	302.4	-5.2	22.5	9.0	-14.2
1981	313.6	7.8	30.5	12.2	-4.4
1982	327.2	9.6	31.3	12.5	-2.9

Source: *Advies aardgasbeleid* (SER, The Hague, 1983), p. 18.

a. Exports and import substitution less imports for natural gas industry.

b. Direct effects adjusted for additional imports resulting from additional income generated by the natural gas.

**TABLE 15-A5 Government Revenue from Natural Gas**

Year	In Million Guilders	As % of Net National Income	As % of Total Government Income
1964	24	0.04	0.16
1965	13	0.02	0.08
1966	29	0.04	0.15
1967	97	0.13	0.45
1968	220	0.27	0.91
1969	404	0.43	1.47
1970	604	0.57	1.91
1971	908	0.76	2.41
1972	1,220	0.91	3.11
1973	1,678	1.08	3.72
1974	2,777	1.59	5.61
1975	5,187	2.74	8.99
1976	7,422	3.40	11.02
1977	8,752	3.49	11.41
1978	8,670	3.21	10.39
1979	9,769	3.41	11.27
1980	13,920	4.60	14.60
1981	19,000	6.00	19.11
1982	19,700	5.97	19.41
1983	180,000	5.30	17.4
1984	18,350	5.10	17.0
1985	17,600	4.6	15.9
1986	16,600	4.3	14.2
1987	15,900	4.0	12.8
1988	14,800	3.6	11.3

Sources: *Advies aardgasbeleid* (SER, The Hague, 1983), p. 12, for 1964–83; *Miljoenennota 1984* (The Hague, 1983), p. 147; and author's estimates for 1984–88.

**TABLE 15-A6 Government Natural Gas Revenue: Estimates and Outcome (billion guilders)**

	1980	1981	1982	1983	1984
Estimate of					
1979 Budget	10.1	10.3	10.8	11.2	
1980 Budget	11.8	13.1	14.8	14.3	13.6
1981 Budget		16.8	19.7	22.4	23.3
1982 Budget			24.7	28.4	31.2
1983 Budget				20.0	21.2
1984 Budget				18.3	18.3
Outcome	12.1	18.1	19.8		

Source: *Miljoenennota 1984* (The Hague, 1983), p. 41.

## Note

This paper was presented at the symposium "Lessons from Recent European and Australian Macroeconomic Experience" organized by the Macroeconomic Research Section of the Royal Commission on the Economic Union and Development Prospects for Canada, Ottawa, June 8–9, 1984.

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## **Summary of Discussion on Papers Relating to Macroeconomic Response to Export/Real Exchange-Rate Shocks**

BRIAN L. SCARFE

The purpose of this section was to discuss how the macroeconomic policies pursued by small open economies might best respond to an increase (either permanent or temporary) in the real price in world markets of a primary export commodity, such as crude oil, natural gas or base metals. Technically, this is a different question from how they should respond to a major new resource discovery. Nevertheless, since it is rising real prices that may stimulate exploration activity or bring on stream higher-cost but known sources of supply (provided that these real prices are allowed to flow through to producers or potential producers as rising real netbacks and/or reserve prices — the price of the reserve stock in the ground — rather than being taxed away), these two questions are inherently related.

To discuss the central question, the commission invited three country-specific experts: Dr. Michael Ellman (Netherlands), Mr. Christopher Allsopp (England), and Dr. Robert Gregory (Australia). Quite naturally, Dr. Ellman's comments pertained mostly to rising real prices for natural gas, Mr. Allsopp's pertained mostly to rising real prices for North Sea oil, and Dr. Gregory's pertained mostly to rising real prices for base metals (see paper 7). It should, however, be remembered that most primary commodity prices are cyclical in nature, and that since 1980/81 real prices for most of these commodities have been falling in world markets.

### **The Netherlands and Natural Gas: Dr. Ellman**

While eschewing the concept of "the Dutch disease," Dr. Ellman described a picture in which some of the worst features of "how not to

adjust appropriately” were demonstrated. The basic proposition that substantial rent windfalls from non-renewable resource extraction should be saved, and invested externally if possible to prevent an excessive appreciation in the real exchange rate, was not followed in the Dutch case. Nor was a policy of fiscal stringency (to enhance domestic savings) and relative monetary ease followed to help with the real exchange-rate problem. Instead, the Netherlands government decided to expand both the public service sector and the transfer payment sector of the economy, thereby consuming a large portion of its resource rent windfall. A hard currency option and associated monetary stringency enhanced the appreciation of the currency and undermined the competitiveness of the once robust manufacturing and intensive-agricultural sectors of the economy. In consequence, de-industrialization was pushed much further than the simple expansion of the natural gas sector would have required, and the dependency ratio (supported population/employed population) climbed to unsustainable heights.

The Netherlands government is now faced with the problem of downsizing the public service and transfer sectors of the economy while also reducing real wage rates to rekindle profitability and employment in the manufacturing and intensive-agricultural sectors. Its fear of inflation prevents it from abandoning the hard currency monetary policy stance to help bring about the latter. This may well be sensible in an economy with strongly centralized collective bargaining arrangements. However, the terms of trade are currently moving against natural gas exporting countries, and the exchange rate should be allowed to fall somewhat to offset this trend. Nevertheless, there remains a massive problem of re-employing those who have recently been supported through the expansion of the transfer sector.

In sum, the “Dutch disease” is not an inherent consequence of an expansion in importance of a primary resource-exporting sector. Rather, it is a problem of policy making which could have been avoided by greater public saving and external investment. Of course, it is impossible to avoid responding to some of the political pressures for consumption of windfall revenues today. But the attempt should clearly have been made.

### **The United Kingdom and North Sea Oil: Mr. Allsopp**

The story for the United Kingdom presents another picture of “how not to adjust appropriately,” though the policy mistakes are rather different from the Netherlands experience. Mr. Allsopp places a large portion of the “blame” for the United Kingdom’s real exchange-rate appreciation in the late 1970s on the tightening of fiscal policy after Mrs. Thatcher became prime minister. Although the long-term effect of sustained tightness in fiscal policy is an appreciation of the exchange rate through the strengthening of both the net debt-service balance and the export-import



balance in the current account of the balance of payments, the short-term effects ordinarily go in the opposite direction if capital flows are interest sensitive. The main exception will occur only if the capital market expects a relative fall in the domestic inflation rate. And this is only likely if an associated tightening of monetary policy is also implied. Given the influence of the Public Sector Borrowing Requirement on U.K. monetary policy developments, this may occur more automatically in the United Kingdom than in many other countries. Nevertheless, we cannot avoid the conclusion that the tightening of monetary policy in the United Kingdom led to more real appreciation of the pound sterling than North Sea oil, by itself, would have achieved. The de-industrialization and unemployment consequences have been substantial.

In sum, while the attempt to save a proportion of public sector oil revenues via tighter fiscal policy is appropriate, the necessity for the economy to invest some of these rents outside the country is thwarted if monetary policy is kept too tight. However, the adjustment problem for the U.K. economy as it recovers from the recent recession is less severe than that for the Netherlands because it avoided the tendency for public consumption to dissipate non-renewable resource revenues. Some potential rents have, however, been dissipated into unemployment insurance benefits. A looser monetary policy stance and less real appreciation of sterling could have reduced this tendency, as well as making it easier for the private sector to assume the role that Mrs. Thatcher really wants it to play in the U.K. economy. While this might have been more inflationary, the unfortunate choice of the value-added tax increase as the instrument for fiscal policy tightening held up the inflation rate for longer than might have been the case had other measures been used to reduce the fiscal deficit (which recently may well have become a substantial surplus on an inflation and cyclically adjusted basis).

### **Australia and Base Metals: Dr. Gregory**

The Australian story is somewhat different owing to the fact that metals prices have demonstrated more cyclical symmetry than oil and gas prices over the past fifteen years — that is, there has been little overall upward trend in these prices. Some attempt has been made to allow the currency to appreciate to offset cyclical upswings in real metals prices and to depreciate when downswings have occurred. Nevertheless, because of the centralized nature of collective bargaining in the Australian economy, and the at best limited use of “flexible wage” contracts and bonuses in the resource-producing sectors of the economy, the cyclical process has worked to generate a significant inflationary bias in the economy. That is to say, the rate of inflation in Australia is higher today, relative to its trading partners, than it was at the beginning of the

1970s. Until Canada suffered a much deeper recession than its trading partners in the 1981–83 period, a similar situation existed where precious little effort has been made since the 1950s to allow the exchange rate to adjust appropriately to overall terms-of-trade swings. One reason is that stability in the real exchange rate of the non-primary sectors of the Canadian economy (especially the manufacturing heartland of Central Canada) seems politically more important than in Australia. From an overall terms-of-trade perspective, and from the point of view of stabilizing the trade-weighted real exchange rate, however, Canada should have appreciated the currency sharply in the 1972–74 period, and depreciated earlier in the 1982–84 period.

From the Canadian perspective, the Australian experience provides the most valuable lessons for us. We should learn that centralized, synchronized collective bargaining is not the answer to our wage-adjustment problem. Shorter contracts, negotiated on an individual basis as they are at present in Canada, may have some value. But what is really required is flexible wage contracts, along the lines that a symmetrical wage bonus scheme would provide, rather than fixed wage contracts. Only in this way can profit margins and employment be stabilized in our cyclical resource-producing industries as relative prices shift around in the world market.

On the question whether currency depreciation can lead to downward real wage adjustment and improvements in competitive position in the context of the Australian economy, Dr. Gregory's remarks (and charts) were not always consistent. Nevertheless, it appears that in the short run the Australian economy can achieve these results, but with centralized collective bargaining it may fail to maintain them in the long run. However, what is really required is greater product-wage stability on a sectoral basis; centralized systems cannot achieve this result. Finally, it is important to note that flexible wage-bonus systems only make sense from an efficiency point of view (as opposed to a stabilization perspective) if the government sector avoids special protective and regulatory devices that generate non-cyclical and capturable economic rents in specific sectors of the economy.

## **Concluding Remarks and Implications for Canada**

Canada has clearly avoided the "Dutch disease" in its manufacturing heartland by severely regulating internal resource prices and imposing federal taxes that directly or indirectly protect this sector from many of the vagaries of the international market place. The worst "Dutch disease" situation in Canada currently exists in Alberta, where downsizing and real wage adjustment are being attempted with the instruments at the disposal of the provincial government (which do not include monetary policy). This painful adjustment will eventually work, but it will not be because the federal government provided any substantial help.

Indeed, having taken the provincial resource rental surplus out to consume on its own spending program (thereby undermining the stabilization function of the Alberta Heritage Savings Trust Fund) and having levelled activity in our most important industry, the federal government has done virtually nothing to help with the basic need to save and invest externally our natural resource windfalls; nor has the federal government assisted with the massive adjustment problem that our local collapse in investment activity and equity (net property) values continues to sustain. Had we had the Crosbie budget and (at least partial) mortgage interest deductibility, much of this might have been avoided. Instead, we got the NEP, a massive overreaction by the federal government to the temporary run-up in world oil prices in real terms in 1979, and higher than necessary real interest-rate side effects.

Given that all primary commodity markets and their associated real prices, including those for oil and natural gas, are cyclical, and given the fact that high interest rates have their biggest adverse impact in the capital-intensive resource-producing areas of the economy, we cannot simply take out of a region during the boom and fail to put anything substantial back into that region when the inevitable bust occurs. The next Canadian government needs to do a much better job with these problems of managing a regionally diverse economy. Flexible wage contracts (symmetrical wage-bonus systems), better regard for movements in the trade-weighted exchange rate in relation to the overall terms of trade, an industrial strategy based on international comparative advantage rather than "dirigisme," and a thorough understanding in Ottawa of the economics of that part of Canada outside the "golden triangle" are essential aspects of these reforms.

## **PART VIII**



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# **An Overview of OECD Experience**



## **Coming of Age in the 1970s:** *Reflections of a Practical Macroeconomist*

C.I. HIGGINS

I joined the Australian Treasury in 1970, after two postgraduate years in the Australian Bureau of Statistics. Since that time I have been involved first in Australian macro-model building for national forecasting and policy analysis; second, in national advising on fiscal and monetary policies; and third and most recently, in the same processes over the international range of the OECD at one additional arm's length. In the mid-1970s I recharged my academic batteries, but was not tempted other than to return to the endemic frustrations of policy advising. These notes selectively record some perceptions I have formed about the functioning of macroeconomic systems in practice during the "school of hard shocks" of the 1970s.<sup>1</sup> They are a mixture of observations on issues, techniques and institutions. In distilling the reflections, I provide illustration from OECD experiences, intended as suggestive but not as complete rationale for the views put forward. In the process I generally cite OECD publications where the interested reader can pursue the issues to greater depth.

Some of these reflections may have validity for the years ahead, but one of the lessons from them is that whenever we think we have mastered an issue, the next to come along will require some modification in the apparatus of understanding and amelioration. I have retained nonetheless — even strengthened — a belief in macroeconomic analysis as a method which sheds helpful light on real world processes, a theme to which I return in an epilogue.

### **God Gave Us Two Eyes: One for Supply and One for Demand**

It was not until early this year at a ministerial conference at OECD that I

heard the title phrase and I apologize for not having discovered which eminent economist coined it, and when. In the wake of the supply shocks of the 1970s, all macroeconomists now pay it due heed. Many of you will remember clearly the modifications we had to make to our macroanalytical apparatus to deal with the first oil price shock. It reminded us that even the most closed economy can be subject to terms-of-trade changes with macroeconomic consequences. This is a lesson we must not forget: the macroanalytical apparatus used for policy analysis must be able properly to reflect the consequences of terms-of-trade changes for aggregate supply and for demand for the factors of production. It needs also to be able properly to reflect the consequences of factor price changes, to which I will return in the next section on the provision of labour services.

I had completed my graduate studies well before the supply shocks of the mid-1970s and with an abiding dissatisfaction with the “closure” of the macroeconomic system as I had been taught it.<sup>2</sup> The system I had learned seemed to me to have too little by way of supply constraints, and even less in the way of explaining how potential output is determined. It was too demand driven and, related to that, poorly represented the influence of imbalance between demand and supply on aggregate prices, including wages. At that stage the mental apparatus I had, but with which I was uncomfortable, saw supply as almost exclusively a longer-run and/or microeconomic phenomenon; in a quantitative model you could only deal with the supply side by multisectoral techniques. This quasi identification of supply with micro (long-run) and demand with macro (short-run) is a lingering tendency which has, I believe, contributed to poor analysis. I shall refer to it again below from the perspective of macro versus structural policies.

Dissatisfaction with the model I had been taught led me to look for better closure. I found the approach which satisfied me, and still does, in the early 1970s — in the extension of the interrelated factor-demand literature to explicit treatment of aggregate supply by Canadian economists Helliwell and collaborators.<sup>3</sup> My own early research work was dominated by the closure problem.<sup>4</sup> Helliwell has made further improvements in his concept of closure, more carefully articulating inventory behaviour and giving more direct weight to profitability in the production decision.<sup>5</sup> I continue to find this approach satisfying. Curiously, difficult as it is to implement empirically, it is in a number of operational macroeconomic models ahead of the treatment of aggregate supply in texts used in graduate study today.<sup>6</sup>

## **Economics and the Provision of Labour Services**

Perhaps the most controversial issue with which my professional experience has brought me into contact is the influence of real wages on

employment; controversial because of the role played by ideology and political values. Debates on monetarism have also taken on strong ideological overtones from time to time, but I think less inimically to sound analysis than in the case of the real wage issue.

My own view is that most of the relevant analytical propositions are both straightforward and unassailable. The demand for labour is essentially a derived demand. For any given level of aggregate demand (for output) the demand for labour will respond to its price (both relative to that of output — the real product wage — and relative to that of other inputs). The level of aggregate demand is, of course, not independent of the demand for labour and hence the price of labour services. It is the nature of this interdependence that begins to complicate the story.

There are four major partial effects to be weighed. Consider the case of an *ex ante* reduction in real wages.<sup>7</sup> First, while the directly induced increase in employment will tend to increase household real income (and consumption), the lower real wage will reduce it. Second, derived demand for capital (output constant) will be reduced. Third, the effect on profitability will increase business investment. Fourth, if, as seems almost universally to be the case, there is a deceleration in aggregate prices, there will be positive real balance and associated effects.<sup>8</sup> The net of the partial effects will not always be the same magnitude, nor will it even always take the same sign. There will, moreover, be a dynamic profile. However, in my judgment, in most of the circumstances in which this argument has raged since the mid-1970s the net effect, after all but a short period, has been positive on output and (net) employment.

Recall the origins of the debate in the 1970s. The circumstances in which real wage moderation was advocated arose as a result of earlier large increases: sharp reductions in the share of profits. Some arose from domestic "wage push" (e.g., Australia in the early 1970s); others from the concatenation of external price shocks with domestic indexation systems and a world moving into recession lowering capacity utilization: external price increases were built into domestic wages which could not be passed on in higher selling prices (e.g., many of the open European economies after the first oil shock). These economies could not resume a stable growth path without a restoration of profitability, requiring some reduction in real wages relative to productivity, at least *ex ante* if not *ex post*.<sup>9</sup> Contrast with the U.S. experience after the first oil shock is informative: there greater stickiness in money wages produced greater downward variability in real wages in the face of the terms-of-trade change, and employment was relatively maintained.

Relative employment performance in labour markets with different wage responsiveness, just illustrated in the case of the first oil price shock, has a broader illustration. Over the ten years to 1983 there was net creation of 15.8 million jobs in the United States and 5 million in Japan, and a net loss of 1.5 million jobs in Europe. Although output growth was

stronger in Japan, it was very similar in the United States and Europe. It is hard, if not impossible, to avoid the inference that this contrast owes much to greater labour market flexibility in the United States and Japan. It is equally important to note that such flexibility is achieved with very different labour market institutions.<sup>10</sup>

None of this is meant to deny the existence of demand-deficient (Keynesian) unemployment, or unemployment which derives from sticky product prices. The basic point I wish to make is that when our economies are on prosperity paths they are generally characterized by low and stable inflation and by simultaneous increases in real wages, aggregate real incomes and employment. Except perhaps in the extreme short run, it is not a zero-sum game.

I believe the non-zero-sum proposition generalizes from the domain of the aggregate wage level to that of relative wages and labour market mobility. The level of conflict so frequently perceived between “fairness” and “efficiency” objectives is unnecessarily intensified by unpreparedness to rethink existing forms of labour market intervention by governments and existing patterns of labour relations. While those interventions and patterns may successfully “protect” subgroups, that protection is often at the expense of the whole. The challenge lies in institutional change to reduce fallacious zero-sum conflict against the recognition that greater variation in aggregate and relative wages, and in mobility, will contribute to greater employment stability and to higher real wages and higher employment over time.<sup>11</sup> I recognize that it is easier to call for vaguely defined institutional changes than to advise how coalitions can be formed to implement them, recognizing that the unemployed are, generally speaking, not an effective interest group (see the section on rent-seeking below).

### **Adjustment Speeds, Temporary Equilibria and the Policy Run**

The question of whether wage restraint will be accompanied by higher or lower real output and employment, and over what period, can only be answered by deriving the net of a number of influences. Moreover, these influences work out with differing and varying time profiles according to the broader forces shaping the macroeconomy at the time. This is, of course, a characteristic of almost all policy questions in economics. Theoretical analysis can have a lot to say about the end point, but generally tells us little about the nature and length of the paths to get there. Experience tells us that those paths are complex and play out several years: what I like to term the “policy run.” There is, I believe, an inescapable methodological implication: macroeconomic policy analysis has to make use of quantified macroeconomic models with explicit dynamics.<sup>12</sup>



The theoretical stream in macroeconomics in the late 1960s and 1970s which clarified the various concepts of constrained (time varying) equilibria in understanding the macroeconomic system was very helpful in this respect. It has enriched both the specification and mode of application of macroeconometric models in understanding macroeconomic adjustment processes.<sup>13</sup> Profound use has been made of the concept of differential adjustment speeds in depicting the functioning of foreign exchange markets. Markets in financial assets are seen as adjusting very quickly, the capital stock at the slow extreme, with the markets for labour services and products in between. It is these relativities which can generate, for example, oft-observed exchange-rate "overshooting."<sup>14</sup>

The length of time for which such overshooting can occur is critical. Many observers see the system now in place as capable of producing exchange rates out of line with their "final" equilibrium for long periods. But, in this case, the question should be rephrased: As the exchange rate moves along its path of successive temporary equilibria toward its "final" equilibrium value when trade flows have fully adjusted, does the real sector adjust to the disequilibrium quantities being traded and overshoot in turn, so affecting final equilibrium and, indeed, producing cycles? Many observers believe so: product and factor markets adjust to the "temporary" equilibrium in the exchange market and this involves plant closures, geographical relocation of workers, and so on. Periods of protracted undervaluation of exchange rates are followed by periods of overvaluation, incurring potentially large costs as product and factor market adjustments are reversed.

It is essentially this reversal, it seems to me, which gives rise to continuing controversy over the present exchange-rate regime. There is no evidence that short-term variability in exchange rates has been inimical to trade or growth.<sup>15</sup> However, there is a strong concern about the fact that the system is producing apparently persistent disequilibria in current accounts which are apparently associated with large protracted oscillations in exchange rates.<sup>16</sup>

Although these observations may command a good deal of support, unfortunately they do not give rise to clear policy implications for improving the functioning of foreign exchange markets. Implications for product and factor market policies may be stronger. Thus, while differential adjustment speeds across markets certainly have to be taken as given at any point in time, changing them over time, to the extent that they arise from reduceable rigidities, can be a legitimate objective of policy. Let me use the "patchwork balloon" analogy:<sup>17</sup>

The instability we see in financial markets and the growth of underground economies illustrate in different ways how rigidities can lead to problems far from their source. In this respect, the world economy is like a large balloon constructed by stitching together pieces of rubber, some of them new and elastic and others that have lost their resilience over time. When such a

balloon is squeezed, the elastic sections will stretch, whether the pressure is applied directly to them or to the inelastic sections. The more inelastic sections there are in the balloon, the more the remaining resilient ones will be stretched.

Is the solution to economic rigidities in one area to make other areas more rigid? Certainly that approach would not result in a better balloon. Without the elastic areas, the pressure from squeezing would be greater on all areas. Such a balloon would be likely to develop leaks — just as economic activity tends to leak from the mainstream economy into underground sectors — or it might burst. In any event, it could not expand, as we want our economies to expand. The solution is to restore the resilience to rigid sectors and to create conditions favourable to the emergence of new activities within the mainstream economy. This would allow economies to better respond to disturbances, to restore the capacity for expansion, and to reduce the risk of an irreparable rupture.<sup>18</sup>

## **There Is No Escaping Interdependence**

The share of exports of goods and services in GNP has about doubled over the past 30 years in six OECD countries, including the United States, and has increased by one-half or more in another five OECD countries. On average, OECD countries today export about 30 percent of their GNP (unweighted basis), but with considerable variation: in Belgium, for example, exports amount to more than 60 percent, whereas in the United States the figure is about 12 percent.<sup>19</sup>

Increasing openness to trade has been matched or more than matched on the investment and financial side. Thus, for example, over the past two decades Eurocurrency markets have grown by about 30 percent per annum, twice as fast as the value of world trade and three times as fast as OECD nominal GNP.

Much of the openness of OECD economies is with respect to other OECD economies; the external sector of the OECD region as a whole is smaller than for any of its member countries: trade in goods and services with the rest of the world amounts to some 7 percent of area GNP. At the same time, the sheer size of the OECD economy as a whole means it has enormous significance for the rest of the world.

The openness of the individual OECD economy is such that the performance of the OECD economies in combination has an important influence on the performance of each economy individually. A number of episodes in the 1970s illustrate the power of economic constraints transmitted through international linkages — that is, the impossibility of “bucking the trend”: (a) the initial policy differentiation following the 1973 oil price increase gave way to convergence; (b) the sterling crisis in 1976 seems to have owed much to perceptions of the stance of economic policy relative to other countries; (c) Italian experience, especially in 1980–81, has been of the same kind; and (d) the celebrated reversal of

economic policy under the present French government is largely explained by reference to a perceived external constraint. Even the largest and least open OECD economy is not immune from the pressures of linkage: the dramatic widening of the current account deficit of the United States between 1975 and 1978, which owed much to policy-induced rapid domestic growth relative to other economies, culminated in the speculative run against the dollar in October 1978 and a marked shift in domestic policy together with internationally cooperative currency support measures.

The counterpart of not being able to buck the trend is collectively overdoing it. When the policies of a number of major OECD economies become synchronized, whether in the direction of expansion or contraction, the effect on the OECD economy risks being markedly greater than policy makers might expect on the basis of their own economies. The synchronous booms of 1968 and 1972–73 illustrate this in one direction; the post-1980 recession in the other.

History thus leads most observers to conclude that far less than optimal account is taken at the global or OECD-wide level of the implications of the sum total of individual countries' policies. Why? The authors of the OECD paper I have been drawing on observe that "because ultimate policy responsibility is national, giving this recognition operational content is [understandably] difficult." Moral hazard presumably looms larger internationally than nationally. A further proposition is contained in a recent Group of Thirty Study based on interviews with important actors on the international policy stage:

A permanent change with important implications is the decline in the weight of the American economy in the system — a continuing refrain in the comments made to us, especially by Europeans and Japanese, but also by some Americans. As one put it: "The decline of the United States from being *hors de concours* to being *primus inter pares* is itself destabilizing. An oligopoly is inherently harder to handle than a monopoly, if the monopolist is benign."<sup>20</sup>

Dean and Pringle also provide another tantalizing clue:

Criticisms made quite frequently by our respondents were to the effect that "the international monetary system changes every time there is a new Under Secretary for Monetary Affairs at the American Treasury" and "each new Administration tends to sell policies that have been formulated to meet domestic political and ideological interests to the rest of the world." The present Administration is seen to have been particularly culpable, but several people commented on the inexperience of officials brought in to most Administrations — "it's a two-year learning process."

This complaint is related to a hypothesis I have formed. Because the United States is a relatively closed economy, economics teaching in that country gives relatively little attention to the open and international

economy. This ignorance, combined with the dominance of the United States in the economics profession globally, leads to a systematic underappreciation of international economic linkages.

## **Big Stocks from Little Flows Can Grow**

In the second half of the 1970s we had two major reminders that sustained flows could give rise to stocks which demanded explicit portfolio analysis, generally neglected in macrosystems. I have in mind the growth in public debt in OECD countries stemming from an unusual string of large budget deficits, and insupportable levels of international indebtedness which emerged at the turn of the decade. The need to focus explicitly on portfolios of stocks emerged not so much because these build-ups were very rapid, although that was important, but because they have been accompanied, especially in the past several years, by nominal interest rates substantially and persistently above nominal income growth. This imbalance raises important sustainability issues.<sup>21</sup>

Such a situation is not only unusual, but anomalous in a deeper sense in that it tends to drive debtors and creditors into opposite corners. That is, for countries, or sectors within countries, that are net lenders, interest flows grow more rapidly than overall income, leading to increasingly positive ratios of financial wealth to income, while borrowers experience a corresponding rise in debt-income ratios. Both debtors and creditors may accept such changes to some extent but only within limits; adjustments in the pattern of resource flows among sectors and countries will occur.

From this point of view, the acute financing strains and pressures to adjust which have been experienced by those countries traditionally important borrowers in international markets, by the enterprise sector, and by governments are to some extent "of a piece." The difficulty of adjusting is, of course, compounded by having to meet the inexorably growing interest burden of accumulating debt: stock imbalances persist for some time even after flow imbalances are corrected. While much attention has focussed on the problems of the debtors, the situation of wealth holders has been less commented on. Several rather different processes can be envisaged.

For instance, wealth holders may adjust spending to their extra wealth. We could thus imagine a fall in saving ratios by households as they try to reduce their wealth/income ratios. The resulting boost to consumption could then be one of the sources of more rapid growth, in this way easing the precarious situations of debtors. Alternatively, however, we can imagine more perverse results. If creditors become increasingly concerned about the quality of their claims, they might be pushed to demand higher returns to compensate for perceived risk, and at the same time to increase desired saving to offset the perceived

deterioration in quality. Financial strains could not effectively be eased under such circumstances and the tension would mount toward an unpredictable but presumably disruptive disjuncture. Finally, interest rates could fall by enough to bring them down below growth rates which, in turn, had picked up. The process of adjustment between borrowers and lenders could then proceed more smoothly as interest flows became a declining rather than growing component of income for debtors and creditors alike.

There has been some closing of the scissors in the final composite way envisaged in 1982 by Ostry-Koromzay, with relatively more movement in the growth blade than in the interest-rate blade.<sup>22</sup> But the process still has a long way to go; real interest rates can be expected to remain positive in a world which has lost most of its money illusion and which is committed to inflation control. Let me illustrate with respect to government indebtedness in OECD economies.

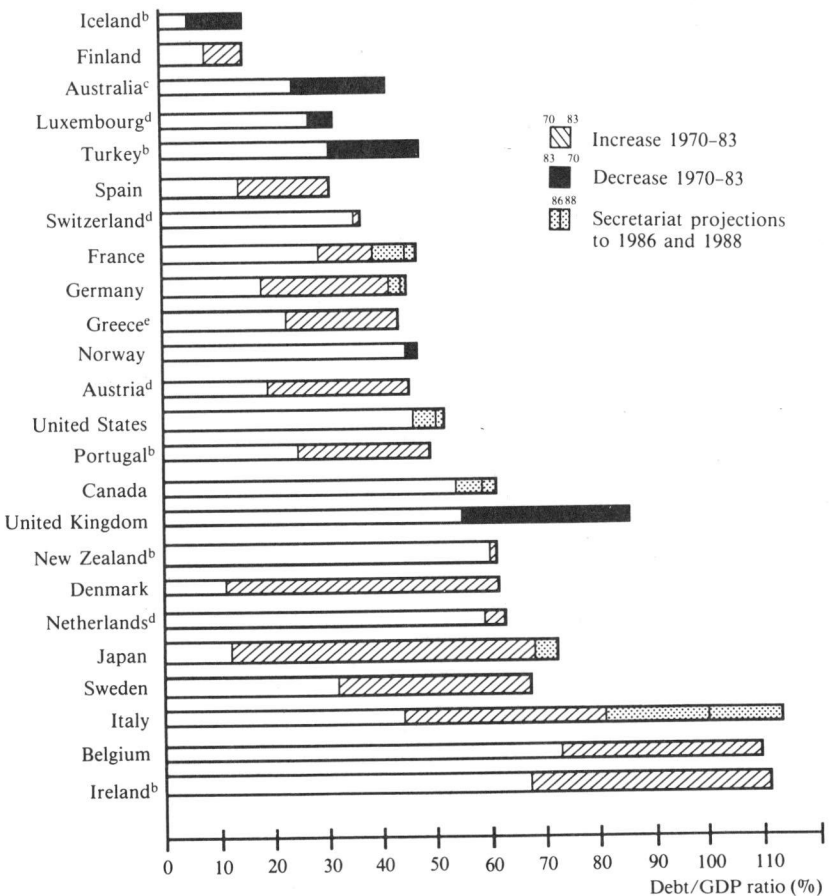
Figure 16-1 shows the development of government debt to GDP ratios for OECD countries over the period 1970–83. In only 6 out of the 24 cases did the ratio decrease and, on average, it rose by a quarter, to 50 percent of GDP. The figure also shows projections of the ratios to 1988 for the major seven countries. It is about these major countries that a few illustrative words are of interest.

The projections are based on the budget deficit/GDP targets expressed in the various medium-term budget strategies, except in the case of the United States where, for the time being, the 1985 budget savings proposals are not well assured. Despite considerable moves toward surplus in budget balances, especially in net-of-interest terms, the 1988 debt ratios are all greater than in 1983 except for the United Kingdom, where there is virtually no change. Although the outcomes are fairly sensitive to the assumptions made, it is interesting to note that the “ceiling” on the debt ratio implied by projecting assumed 1988 budget deficits and nominal GDP growth rates forward indefinitely is, on average, some 10 percentage points above the 1988 level and 20 percentage points above the 1983 level (of 51 percent), with the range of change among countries from 1983 being zero to plus-90 points.

In 1983 gross debt interest payments represented almost 4 percent of GDP, having doubled since 1978. Between 1983 and 1988 net interest payments are projected to rise from 64 to just over 100 percent of budget deficits in aggregate. If borrowing to finance growing debt service up to 1988 were to be avoided, it would require finding progressively an additional 3/4 percent of GDP in tax increases or spending reductions by then.

These calculations illustrate the inexorability of the arithmetic of interest rates at or above the growth rate for a sustained interval. Public sector indebtedness will remain an important focus of budgetary policy for a long time. Problems of international indebtedness will, by virtue of the same logic of large stock effects, take many years to resolve.

**FIGURE 16-1 Government Debt-GDP Ratios in OECD Countries, 1970-83<sup>a</sup>**



- Except where otherwise noted, debt relates to gross financial liabilities of the general government, which includes central, state (or provincial) and local government sectors and incorporates social security funds. Figures for 1983 are Secretariat estimates. The terminal year is 1981 for Iceland and Switzerland and 1982 for Luxembourg, Portugal and Turkey. Countries ranked by 1983 ratio.
- Central government debt.
- Central government and states debt.
- Debt of general government excluding social security funds.
- Public sector debt (including nationalized industries) for the years 1976 and 1982.

## Expectations, Dogma and Thresholds

The development of the role of expectations, including the rational extreme, was one of the most celebrated advances in macroeconomic theory in the 1970s. What impact has it had on the world of policy making? The answer is an enormous impact.

Many have written at length about the “new classical” experiments in macroeconomic policy and a preliminary verdict can probably be given. Private agents have not shown the foresight assumed in the theoretical rational expectations models which assume economic agents have the same view of economic relationships and future policy as are embedded in the model. Whether they are “less rational” or “more rational” is hotly debated. Whatever the case, the transition to lower inflation has involved large output costs in the short term. As Coe and Holtham put it, “the suggestion that (the new classical) policies, by radically altering expectations, would radically alter evolution now seems to be without convincing theoretical warrant or observational support. Inflexibility of relative prices, and indeed absolute prices, over the short run, although imperfectly understood, is a pervasive phenomenon in the OECD economies.”<sup>23</sup>

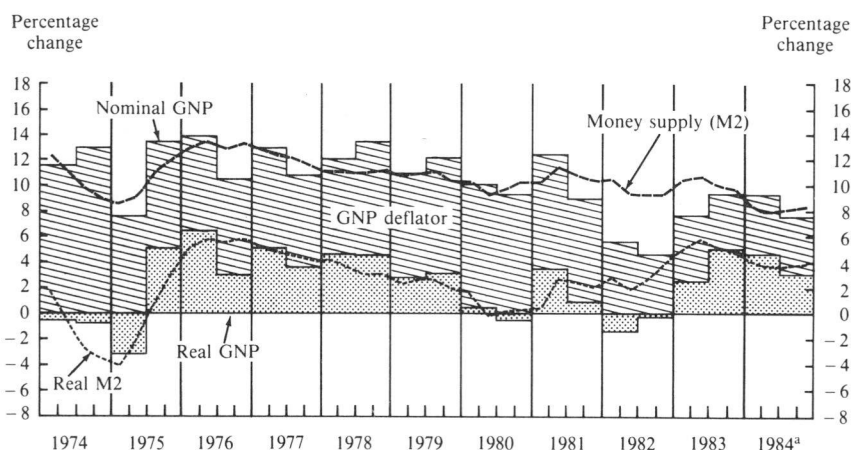
But this experience does not imply that expectations are not of fundamental importance; rather, that they cannot be manipulated very easily, nor treated as though everyone had the same — let alone accurate — view of how the economy will evolve. This explanation has very strong implications, although quite different from those flowing from rational expectations, for the conduct of policy. They can best be illustrated by reference to the credibility dilemma with which a number of central banks have had to grapple in the course of the recent great disinflation.

In the wake of the second oil shock, overall output performance was weaker than hoped while inflation was less than envisaged; that is to say, nominal income growth was systematically lower than anticipated. An examination of nominal income changes over those years shows that a particular pattern was widespread. Especially as between 1981 and 1982, inflation declined or remained low (in the low inflation economies) while real output sharply decelerated or fell. In other words, in many economies, including the United States, Germany, France, Canada, Sweden and Switzerland and, as between 1980 and 1981, in Japan and the United Kingdom as well, nominal income growth dropped markedly — by some 5 percentage points for the group. This fall was much greater than the slowing in monetary aggregates which, in a number of important instances, did not slow or even accelerated a little. Figure 16-2 provides a clear illustration of this imbalance (note that the gap between the money supply and nominal GNP lines is unprecedentedly wide in 1982). This major decline in velocity was no doubt associated with disinflation, and standard theory would predict a move in that direction.<sup>24</sup> Could the monetary authorities have acted to offset it, so as to preserve, at least to some extent, the growth in nominal income (as was the case in 1976)? This is the credibility dilemma.

If the central bank (or the authorities overall in more unified systems such as the United Kingdom) possessed a sufficient “stock of credibility” either built up over a long period (e.g., Germany, Switzerland) or



**FIGURE 16-2 Monetary and Fiscal Policy Indicators (aggregates for seven major OECD countries)**



Source: OECD *Economic Outlook*, June 1984.

a. OECD forecasts.

more recently acquired (e.g., United States, United Kingdom), then it would have been freer to act to offset the velocity decline without seriously rekindling inflationary expectations (in the subduing of which so large a cost had already been incurred). Thus we saw the shift in U.K. policy during 1981 (publicly confirmed in the 1982 budget) toward greater weight on the exchange rate as an indicator in assessing monetary policy. In the United States there was, of course, a factor other than the prolonged domestic output recession upon which expenditure of anti-inflation credibility had to be weighed — the stability of the international financial system which was threatened by the rapid build-up in LDC debt (see the section on public and international debt above). It was not until the late summer of 1982 that the U.S. authorities acted. German and Swiss monetary authorities had acted more flexibly throughout, having had a larger initial stock of credibility.

In not so distant times these actions of the monetary authorities might have been called fine-tuning, but under recent dogma that term has become pejorative. The extent to which such disparagement is righteous stems in part from expectations phenomena and the credibility imperative.<sup>25</sup>

It is trivial to observe that economic policy decisions are not taken by economic policy advisers and analysts; they are taken by politicians and politically attuned central bank boards. They require a sufficiently large constituency both among the decision makers and the public at large from whom their authority derives. The place of dogma (or fashion if you



prefer) in this process should not be overlooked. Ideas have to have adequate simplicity and directness or they won't readily establish the appeal which is necessary to translate them into action. The sophisticated adviser has to settle for an approximation to his unconstrained first best: he optimizes under constraint. He should put effort into vulgarizing sophisticated analysis which he believes to be relevant, including to offset simple expositions rooted in analysis which he believes to be incorrect. In all this, threshold phenomena are at work. First, a problem which the adviser may long have identified and been expressing concern about reaches a level of manifest seriousness that the policy maker cannot ignore. Second, when awareness of an issue begins to spread among the relevant opinion makers it often suddenly accelerates: this is the steep middle portion of the familiar S-shaped learning curve so often invoked in describing diffusion processes. Monetarism and budget deficits are two good examples of issues which reached the steep middle portion during the 1970s. The adviser must be able to read the position of the relevant group of opinion makers on their learning curve in modulating his advising efforts: there is a low return to efforts if he is too early or too late.

## **The Entrepreneurial Climate: Investment, Growth and Change**

It has been a commonplace in economic theory for centuries that prosperity stems very largely from innovation and investment carried out by entrepreneurs. It is easy to say that the state of the entrepreneurial mind is critical; it is less easy to describe why it is what it is at any point in time, and even more difficult directly to influence it. Keynes's unforgettable phrase "animal spirits" seems to me intended both to remind us that decisions to invest and innovate derive from a deep complex of circumstances, as well as to remind that they can be very variable.

There is no doubt that the investment accelerator is important; so too is the rate of return; behind all, however, is what is most aptly termed the business climate. We tended to forget this fact in the wake of a generation of sustained growth after World War II. Only when the macroeconomic climate was characterized by a persistent atmospheric depression did we come to suspect that many of the structural or microeconomic determinants of the state of the entrepreneurial mind had deteriorated during that golden growth period.

I refer particularly to the dramatic growth of the public sector in its manifold forms over the past generation. I quote from a summary of a study we recently undertook at OECD:<sup>26</sup>

Government growth — including the expansion of regulatory activity — came to be seen as impeding entrepreneurial initiative and the role of

competitive forces in ensuring sufficient economic flexibility in the face of a continually changing economic environment. Generous income support benefits on the one hand and high levels of taxation on the other were thought to have undermined the work ethic, reduced labour supply and saving. In addition, government programmes were seen as encroaching into areas best left to individuals themselves, simultaneously reducing consumer choice and necessitating further tax increases.

Let me also quote the conclusion:

The above review reveals the difficulties of measuring the benefits and costs of activities undertaken in the public sector. Not only do some effects defy quantification — the building of social and political consensus for example — but evidence on individual consequences more amenable to measurement is in many cases mixed and not yet sufficiently robust to permit firm conclusions for policy. To conclude that the evidence is mixed does not, of course, imply that there are on balance no adverse effects; individual consequences may be small and hence difficult to measure, yet their sum could nevertheless be significant. Furthermore, there are instances where concern appears justified and where remedial action is warranted. These need to be dealt with on a case-by-case and country-by-country basis. There are no general conclusions or solutions, just as there are no generalisations one can make about alleged effects. This is, of course, appropriate since the development of the level and pattern of public sector activity reflects the institutional and historical development of individual countries and the wishes of electorates. As in the past, these will be paramount in determining the future course of the public sector in our economies.

I basically share this conclusion on the issues as defined but my degree of generalized concern about the role of the public sector goes beyond that nuanced view. I think a large part of the reason for that is the combination of concerns with public sector deficits, on the one hand, and size of the public sector on the other. In principle, the two are separable, at least to an extent, and the serious problems associated with deficits have been quite apparent. In practice, of course, the two sets of issues have been moving up the learning curve at about the same time and are quite closely linked operationally: expanding public sectors have since the mid-1970s been accompanied by growing deficits. In my judgment the *deficits* issue has reached a threshold of effective concern. But the issue of *interventionism* still has some way to go and it is a timely and important question to ask how far off is the effective concern threshold.<sup>27</sup>

As just noted, spending shares do not measure the whole of state involvement but, casually, we expect there to be a high correlation between spending reduction and retraction in off-budget involvement. In any event, I can readily produce data only on spending. Table 16-1 is, nonetheless, a little more complex than simple spending shares in that it seeks to abstract from the effect of the cycle on spending and revenues.<sup>28</sup>

It can be seen that even in those countries where earlier and significant reductions in structural budget deficits took place (for example, Germany, the United Kingdom, Canada, Australia), this was predominantly attributable to revenue gains of a structural kind. In more recent years there have been reductions in structural spending shares in very few countries. At least at the level recorded in this aggregative way, we could not say that an oft-voiced concern at public expenditure growth has been translated into action; the same almost certainly holds true for off-budget interventions.

Meeting informally in February 1983, OECD ministers were, to many observers, surprisingly of like mind on the importance of increasing the flexibility and responsiveness of economies to market signals and providing a stable policy environment within which private initiative and adaptation to change is encouraged. A catch phrase was "so that change is embraced for the opportunities it brings and not resisted as a threat." This involves much more, of course, than good background conditions for entrepreneurship. It is the whole question of the extent to which the functioning of the macroeconomic system is being impeded by structural rigidities. All such rigidities cannot be attributed to the growth in public spending and intervention but there would seem much, in principle, that better structural policies could contribute to improving economic performance.<sup>29</sup>

This approach was given a limited degree of concreteness at the formal OECD ministerial meeting in May 1984. It seems to me, however, that the threshold to effective action has not yet been reached. This can perhaps be illustrated by the continuing caution toward the OECD "roll-back" initiative, perhaps most notable among European countries and in their formal collective attitude.<sup>30</sup>

Although acceptance of the diagnosis of "Eurosclerosis" is now widespread, the indicated therapy is still being resisted.<sup>31</sup> While formal common external trade barriers may not have been raised in recent years, a variety of new forms of externally directed protectionism have been introduced (e.g., public procurement policies, voluntary restraint agreements); more significantly, the variety and intensity of intra-European restrictions and similar measures (e.g., inspections, standards, limitations on road back-hauling) which greatly impede the development of the internal European market have been on the increase. Lack of progress in dismantling such measures, let alone preventing their increase, is the more paradoxical given the seemingly clear evidence of the strong gains from earlier phases of reduction in intra-European barriers.

While I recognize this paradox, I do not pretend to understand it fully. I do, however, wish to turn now to some general speculations about why our systems produce such paradoxes and what, if anything, can be done about it.

**TABLE 16-1 General Government Structural Budget Components**  
(percent of potential GNP/GDP)

		1970	1974	1979	1983
United States	R	30.7	31.8	31.6	31.3
	E	30.6	31.1	30.4	31.4
	B	0.0	0.7	1.2	-0.2
Japan	R	20.7	24.0	26.3	31.0
	E	18.8	23.3	30.6	32.9
	B	1.9	0.7	-4.3	-2.0
Germany	R	38.6	42.3	44.1	43.4
	E	38.7	42.8	46.4	42.9
	B	-0.1	-0.5	-2.3	0.5
France	R	39.8	40.3	43.6	49.1
	E	38.5	39.2	44.4	42.6
	B	1.3	1.1	-0.7	-0.5
United Kingdom	R	40.2	39.6	38.1	42.8
	E	37.1	43.3	41.3	41.1
	B	3.0	-3.7	-3.2	1.8
Italy	R	30.6	30.5	36.2	43.7
	E	35.7	38.6	45.8	53.2
	B	-5.2	-8.1	-9.7	-9.5
Canada	R	35.4	38.3	36.8	40.0
	E	34.0	37.2	38.3	41.9
	B	1.4	1.1	-1.6	-1.9
Australia	R	28.2	30.7	32.2	34.9
	E	25.3	28.7	32.0	34.7
	B	2.9	2.0	0.2	0.2
Austria	R	39.5	42.5	45.8	46.1
	E	37.4	41.3	48.2	48.6
	B	2.1	1.2	-2.4	-2.5
Belgium	R	35.2	37.4	43.4	46.3
	E	37.9	42.7	49.6	54.9
	B	-2.7	-5.2	-6.1	-8.7
Denmark	R	45.7	49.2	50.5	53.4
	E	42.4	45.3	52.4	59.7
	B	3.2	3.9	-1.9	-6.3
Finland	R	34.9	36.7	38.1	39.0
	E	29.5	32.0	36.3	39.8
	B	5.4	4.7	1.7	-0.8
Greece	R	26.3	26.2	30.2	36.2
	E	24.8	26.2	30.5	42.3
	B	1.5	0	-0.3	-6.1
Ireland	R	35.3	35.2	37.9	49.0
	E	37.5	41.6	48.7	59.1
	B	-2.1	-6.4	-10.7	-10.0

**TABLE 16-1** (cont'd)

		1970	1974	1979	1983
Netherlands	R	41.8	48.2	52.2	55.1
	E	42.6	49.3	53.5	57.7
	B	-0.8	-1.1	-1.3	-2.5
Norway	R	43.5	48.5	51.9	51.5
	E	40.5	43.5	49.9	46.7
	B	3.0	5.0	2.0	4.9
Spain	R	22.4	22.9	28.4	30.6
	E	21.7	23.5	29.4	34.2
	B	0.7	-0.6	-1.1	-3.6
Sweden	R	48.6	50.6	58.4	60.0
	E	44.2	49.8	60.1	62.4
	B	4.4	0.8	-1.7	-2.4

*Note:* R: revenues; E: expenditures; B: balance.

## Rent-Seeking, Constitutions and Mandarinales

The hypothesis that economic performance is progressively and systematically weakened by the accretion of the influence of special interest groups, and the public protection which that achieves, is a powerful one.<sup>32</sup> Given that rent-seeking is an enduring behavioural characteristic which will not be modified at its source, what checks and balances can our socio-political systems realistically provide? These are important issues for the economic adviser. Though I am somewhat out of my depth, I do have a couple of points to record.

First, take Olson's observation that the profound shake-up of power structures that accompanies war, revolution and the like helps largely to explain strong economic performance in the "reconstruction" phase. Presumably no one would wish to draw the inference that such upheavals should be engineered. Second, any form of what might be termed the benevolent despot approach would seem flawed by Olson's basic hypothesis itself: an all-powerful political coalition and/or mandarinates, even if starting out benevolently, will surely become captive of its own interests as they dynamically evolve. The answer must be found in the subtle and evolving overall constitution of our pluralistic societies.

Our formal constitutions must provide the political means for the formation of countervailing interest groups, and should provide mechanisms whereby broader interests ("encompassing organizations") which do not "naturally" coalesce are given formal expression. It is often noted that the gains from reduced protectionism or removal of structural rigidities are dispersed and difficult to identify, while the burdens are concentrated and visible. Thus it seems to me the state has a role to play

in giving weight to the broad consumer interest as opposed to the narrower producer interest in the allocation of border protection and structural assistance. The basic form is the statutorily based charter for a review body which enjoins it to represent the public interest and employs transparent mechanisms in doing so.<sup>33</sup>

There is also the role of the mandarinat (approximately the upper echelon of the permanent civil service). Traditions and arrangements which constitute and support the mandarinat differ among OECD countries. The processes which determine the extent to which it plays its legitimizing role as a constitutional device for maintaining the public interest, rather than the illegitimate role of just another interest group, are very complex. Presumably attention needs to be given to the education/formation process, while recognizing that there is a high degree of self-selection. This prescription is less applicable to the political as opposed to the administrative sphere. The world would seem to need more statesmanship but I do not see any way in which its production can be proximately increased.

## The Search for a Standard of Value

Hicks, in his contribution to the *Economist's* series for the Keynes Centenary,<sup>34</sup> makes the following introductory observation:

He [Keynes] was essentially a monetary economist; his writings are an intellectual counterpart to the monetary revolution of our time. That revolution has been a drama in (so far) five acts. The first was the breakdown of the old gold standard in the first world war. In the second (say, 1924–33) there was an attempted restoration of that standard, which failed. In the third, the later 1930s and, in some respects, the years of the second world war, there was a search for a new standard. In the fourth, which may be reckoned to have begun at some date soon after 1945 and to have lasted until 1971, there was a dollar standard. In the fifth, since 1971, there has been no standard.

Hicks goes on to point out that the Keynes model is not just formally expressed in wage units; it is on a labour standard. A centrally controlled money wage rate provides the monetary anchor for the system. Hicks calls the wage rate a “pseudo standard” since there is no authority which can guarantee the convertibility of money into labour. He argues that it was only by accident “that in Act II it had seemed dependable. In Act IV it was less dependable but did not seem to do so badly” owing to a sustained period of growth with a “minimum of external shocks to disturb, even temporarily, the rise in real wages.” And “so to Act V where nothing is left except the labour standard, the pseudo standard, with its inherent fragility. With the oil shock of 1973, the extent of that fragility was fully revealed.”

Hicks's summary is extremely appealing. With some diffidence I

would like to make some remarks about the search for a standard since 1971 which Hicks does not make. First, there had been those within the profession who had before 1973 well understood the fragility of the labour standard and advocated steady growth in the money supply to play the role of a standard of value.<sup>35</sup> However, it was, as Hicks notes, the events of 1973 that fully revealed the fragility of the old standard and after which monetary targetting became widespread.<sup>36</sup> Money supply control has been widely followed in the period since the mid-1970s. And it is important to recognize that countries which attempt to peg their exchange rate to a "hard currency" are also pursuing a compatible form of monetary control.<sup>37</sup>

In my view, therefore, it is inappropriate to argue that since 1971 there has been no standard. It is reasonable, of course, to argue that money supply control has been very difficult to operate and not very successful. It needs to be recalled, in that respect, that money supply control goes through to prices largely indirectly; the tighter links are with nominal income and, even there — as noted in the section on expectations, for example — they are variable. It is also important to recognize that fiscal and monetary policies represent less than two instruments: it is not possible to target real output growth with fiscal policy and inflation with monetary policy.<sup>38</sup> The recessionary costs of a policy program to lower the inflation rate have been discussed above. Their magnitude has presumably contributed to the fairly clear postwar phenomenon of monetary authorities providing too much monetary support and for too long in the early stages of recoveries.<sup>39</sup>

But are there any alternatives to admittedly flawed money supply control? The only seriously competing one is to put relentlessly into place the logic of the Keynes system, as it were, by "income policies and treaties with trade unions," as Hicks phrases it. But the evidence, he goes on, is that "whilst inflationary pressure may be temporarily checked by such devices, they offer no prospect of the longer-term stability, some degree of confidence in which has become a necessity for real recovery." Hicks's condemnation is too sweeping as several OECD countries would seem to have successfully pursued this approach over the longer term. Nonetheless, for most countries I see no alternative but to persevere with the money stock quasi-standard, for at least as long as something which can be called money exists (which implies some monopoly power over its issuance). As should by now be abundantly clear, it will provide no panacea to understanding the functioning of the macroeconomy in all its complexity.

## Epilogue

I won't try to summarize the foregoing, but I do wish to add a final observation on methodology which I see as providing one unifying

thread. This is a belief in the applicability of macroeconomic analysis to the real world, as I noted at the outset. Whether that analysis is styled as Keynesian, neo-Keynesian, monetarist, new classical, pre-Keynesian, or whatever is for me secondary: we use the same approach for representing the system and the set of important variables, and relationships connecting them, which constitute it. The way in which the differing schools of macroeconomic thought differ is by attaching differing relative importance to particular sets of relationships. My reflections illustrate that it is necessary, in applying the macroeconomic apparatus to the changing forces at work in the real world, to give differing weight to different parts. The macroeconomic system is open: many forces which condition its operation are determined outside of it. They are not unchanging, and as they change, the way they condition the macrosystem has to be brought into account. For tractability, we simplify those parts within the system which are not important to the purpose at hand, and elaborate those parts which are. The forces with which the macroeconomic policy adviser is grappling are strong and inertial but the balance among them can change rapidly. Indeed, it is a good rule of thumb to begin looking out for the next set of changes well before you've mastered the last one — at the level of understanding, that is, and, *a fortiori*, at the level of suitable policy response since that takes much longer.

Thus, for example, the supply shocks from commodity prices and wages of the 1970s demanded more explicit attention to the supply side of our macrosystems; persistent poor performance during the 1980s should command greater attention from the macroeconomist to “structural” issues. The build-up of inflationary expectations and the abandonment of the fixed exchange-rate system required greater attention to nominal magnitudes and money. At the turn of the decade, balance-sheet phenomena demanded explicit attention.

Skeptics can certainly argue that if an analytical system needs so much modification, then it is a “non-system”; hence, in part, the disrepute of macroeconomics in the 1970s. But for me it is not a fundamental flaw of methodology; it has to do with recognition lags, threshold phenomena in the world of action, and the strength and variation in the forces coming from outside the system.



## Notes

This paper was prepared toward the end of an appointment with the OECD and benefits considerably from the experience thus acquired; however, the views expressed herein are my own and cannot be taken to reflect those of the organization. It was presented at the symposium "Lessons from Recent European and Australian Macroeconomic Experience" organized by the Macroeconomic Research Section of the Royal Commission on the Economic Union and Development Prospects for Canada, Ottawa, June 8-9, 1984.

1. This term is used in the introduction of S. Ostry and V. Koromzay, "The United States and Europe: Coping with Change," *OECD Observer* (May 1982).
2. National product can be represented as the sum of expenditures, as the sum of factor incomes, or as the output of the production process. By closure of a macroeconomic model I mean the way this triple-determination of national product is treated.
3. J.F. Helliwell et al., "The Structure of RDX2," *Staff Research Study 7* (Ottawa: Bank of Canada, 1971). Say's law is not applied in the short run nor does income constrained aggregate demand completely dominate the production decision (see also the section on adjustment speeds).
4. C.I. Higgins, "A Wage-Price Sector for a Quarterly Australian Model," in *Econometric Studies of Macro and Monetary Relations*, edited by A.A. Powell and R.A. Williams (Amsterdam: North Holland, 1973); C.N. Caton and C.I. Higgins, "Demand-Supply Imbalance, Unexpected Imports and Unintended Inventory Accumulation," *International Economic Review* (February 1974).
5. See, for example, J.F. Helliwell et al. "Energy and the National Economy: An Overview of the MACE Model," in *Progress in Natural Resource Economics*, edited by A.D. Scott (Oxford: Oxford University Press, 1984).
6. Thus, for example, the new classical school uses a very crude and simple concept of aggregate supply.
7. In the market place, wages are set in nominal terms so that an instantaneous reduction in real wages takes place via money wage moderation. Whether this *ex ante* reduction in real wages becomes lasting *ex post* depends on subsequent developments in prices (and wages) and productivity. It is easy to find circumstances where *ex ante* real wage restraint does not produce *ex post* real wage falls, except more or less instantaneously.
8. Among the associated effects are those on net exports via improved competitiveness, and real increases in government spending for budget components set in nominal terms. Outcomes clearly depend, similarly, on whether growth in the monetary aggregates remains unaltered. The importance of the link between lower inflation and real product is also an important qualification to the oft-stated analogy between wage restraint and devaluation: while a country may benefit unilaterally, if all do it the gains are negated. However, if lower inflation in the system as a whole is associated with higher output, then there are potential gains for all.
9. Not *ex post*, or at least not for long, because of net positive output effects and short-run increasing returns to scale.
10. See "Labour Markets," *OECD Economic Outlook* (June 1984), for an analysis of these decade-long trends.
11. For a recent attempt to formalize a wage determination system using such notions see M.L. Weitzman, "Some Macroeconomic Implications of Alternative Compensation Systems," *Economic Journal* (December 1983).
12. It is a theme of these reflections (see the Epilogue) that our analytical apparatus is in constant need of change. But for me that is a strong argument for using econometric models (wisely), and not an argument against them. A related, often less recognized imperative for the use of a macroeconomic model in policy analysis is the assistance it can afford in appraising data revisions. Recent economic history is often rewritten by the process of data revision. If the latest published data are passed through the filter of an econometric model, much can be learnt about the appropriate relative weight to be placed on various pieces of those data.
13. Along with many others, I gained considerable insight from the works of Clower and Leijonhufvud. This theoretical stream was epitomized in K.J. Arrow and F.H. Hahn,

*General Competitive Analysis* (San Francisco: Holden-Day, 1971). For an example of systematic empirical application see J.F. Helliwell and C.I. Higgins, "Macroeconomic Adjustment Processes," *European Economic Review* 7 (1976): 221-28.

14. See, for example, R. Dornbusch, "Expectations and Exchange Rate Dynamics," *Journal of Political Economy* 84 (1976). I am grateful to Gerry Holtham and Val Koromzay for help in clarifying the argument which follows.
15. "Exchange Rate Volatility and World Trade," IMF Occasional Papers No. 28 (Washington, D.C., 1984).
16. The importance of actual historical adjustment paths in determining (changing) system equilibria is, of course, a further strong argument for quantitative macromodels with explicit dynamics.
17. "From Managing Crises to Sustaining Interdependence: Taking a Long View of Economic Policies," Address by Emile van Lennep, Secretary-General of OECD, Swiss Institute of International Studies, Zurich, March 28, 1984.
18. Energy markets, especially the development of demand, are an example of how the removal of rigidities can have a major impact on the functioning of a market.
19. This and the following four paragraphs are taken virtually directly from F. Larsen, J. Llewellyn, and S. Potter, "International Economic Linkages," *OECD Economic Studies* 1 (Autumn 1983).
20. M. Dean and R. Pringle, "Economic Co-operation from the Inside" (New York: Group of Thirty, 1984). Colleagues who know more about this subject than I do feel this view to be overdrawn, especially for the post-1979 period; see V. Koromzay, J. Llewellyn, and S. Potter, "Exchange Rates and Policy Choices: Some Lessons from Interdependence in a Multilateral Perspective," *American Economic Review* (May 1984).
21. In the three paragraphs which immediately follow I am virtually quoting from an address given by Sylvia Ostry, then of OECD, to a *Financial Times Conference* in November 1982. The passages in question depend importantly on analysis by Val Koromzay.
22. Thus, for example, *OECD Economic Outlook*, December 1983, estimated that falling household saving ratios may have contributed as much as 1½ percentage points to real GDP growth in the seven major countries in 1983, with more to come in 1984. That is, at least for a time in the early recovery phase, nominal income growth had accelerated at the same time as inflation and nominal interest rates had declined.
23. D.T. Coe and G. Holtham, "Output and Responsiveness and Inflation: An Aggregate Study," *OECD Economic Studies* 1 (Autumn 1983).
24. I would not attribute all of the slowing in nominal income during this period to increased money demand associated with falling inflation. The initial increase in interest rates which also occurred was above almost all expectations. Equally, internationally self-reinforcing processes of deflation including, as they did on this occasion, the emergence of an incipient crisis of international indebtedness, undoubtedly explain an important part of the slowing in world activity (see also the section on interdependence above).
25. There are other reasons why fine-tuning is out of fashion, especially that our knowledge is inadequate to support it. In discussions of this broad set of issues in OECD fora, three Cs were used as desiderata in the conduct of macroeconomic policy: consistency, continuity and credibility. Focussing as I have done on credibility in the treatment of expectations phenomena seems appropriate: in a certain sense credibility is the highest C — if you don't have it, accumulating it requires consistency and continuity. However, the other two Cs should not be completely ignored.
26. Summarized in Peter Saunders, "Big Government: Is It Too Big?" *OECD Observer* (March 1984). By focussing on the role of the public sector, I am not meaning to imply that it is the prime determinant of entrepreneurship and economic dynamism, only that it is a relevant sphere where there has been massive change in the past decade.
27. Interventionism is a better term than public sector size since there are many forms of state involvement which have no direct implications for the share of public spending as recorded in the national product accounts.

28. These numbers are taken from R.W. Price and P. Muller, "Structural Budget Deficits and Fiscal Stance," OECD Economics and Statistics Department Working Papers 15 (Paris: OECD, 1984).
29. *Positive Adjustment Policies — Managing Structural Change* (Paris: OECD, 1983).
30. Ministers meeting in mid-1983 agreed to make use individually and collectively of the favourable conditions provided by economic recovery to reverse protectionist trends and to relax and dismantle progressively trade restrictions and trade-distorting domestic measures.
31. See, for example, the stimulating review by J. Waelbroeck, "The SPELC: A European Tale," Discussion Paper 8316 (Bruxelles: Université Libre de Bruxelles, Centre d'Économie Mathématique et d'Économetrie, 1984). It uses the concept of a Socio-Politico Economic Long Cycle as a framework within which to discuss two anthologies: A. Boltho, ed., *The European Economy: Growth and Crisis* (Oxford: Oxford University Press, 1982); and R. Dahrendorf, *Europe's Economy in Crisis* (London: Weidenfeld and Nicolson, 1982).
32. See, for example, Mancur Olson, *The Rise and Decline of Nations: Economic Growth, Stagflation and Social Rigidities* (New Haven: Yale University Press, 1982).
33. *Transparency for Positive Adjustment* (Paris: OECD, 1983).
34. Sir John Hicks, "A Sceptical Follower," *The Economist*, June 18, 1983.
35. For example, M. Friedman, "The Role of Monetary Policy," *American Economic Review* (March 1968). If monetary control succeeds in stabilizing the aggregate price level, then the "standard" is a commodity basket.
36. For a full description of the development and institutions of monetary targetting see *Monetary Targets and Inflation Control*, OECD Monetary Studies (Paris: OECD, 1979).
37. See *Exchange Rate Management and the Conduct of Monetary Policy*, OECD Monetary Studies (Paris: OECD, 1985).
38. See J.-C. Chouraqui and R.W. Price, "Medium-Term Financial Strategy: The Coordination of Fiscal and Monetary Policy," *OECD Economic Studies* 2 (Spring 1984), and Coe and Holtham, "Output and Responsiveness."
39. P. Atkinson and J.-C. Chouraqui, "The Conduct of Monetary Policy in the Current Recovery," OECD Economics and Statistics Department Working Papers 14 (Paris: OECD, 1984), and *OECD Economic Outlook*, June 1984.



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## Rapporteurs' Summary



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## Summary Comments on the Symposium

DOUGLAS D. PURVIS

DAVID LAIDLER

I would like to express my appreciation to our guests. They have worked very hard to address themselves to our interests, and have served us well. At the same time, I would like to apologize in advance to them for any possible injustice I am about to do to some of their views. I am sure that some of them felt quite uncomfortable trying to summarize and draw lessons from the experience of their own countries in 15 pages. I am going to try, now, to get each summary down to about three lines, so I feel even more uncomfortable than they did.

I will structure my remarks around two main organizing points. First I will draw some general lessons that I thought emerged in the conference. Then I will go on to expand on the particular country experiences that I feel are relevant to the Canadian situation. My selection of countries will be incomplete, as David Laidler will speak to the experience of the others as well as draw his own general lessons.

### Some General Lessons

#### *Looking Beyond the United States*

The primary motivation for this conference was to look beyond the experience of the United States — to examine the experiences of other countries. Sometimes in Canada we get a distorted perspective on our own economic situation by focussing almost exclusively on the United States as our “comparison group,” so I welcome this conference.

In this context, the first general observation I want to make is that as I sat and listened for two days, the problems discussed all sounded very

familiar. I think that had the same international group been brought not to a Canadian royal commission but to some U.S. counterpart, the American economists listening would not have had that response; the problems discussed would not have sounded so familiar to Americans, by and large.

This suggests one important message. Canadians often tend to think that when our experience fails to match that of the United States, it is Canada that is the outlier; however, in the current international situation, it is really the United States which is the outlier. There are, of course, still interesting questions to be asked in terms of explaining U.S. performance and of what we can learn from Canada-United States differences, but I think that in terms of the context of this conference, the fact that it is the United States that is the outlier is worth noting.

From a modelling viewpoint, there is another sense in which the United States is an outlier, and that is in terms of its relatively “closed economy” nature. During the course of this conference we had many discussions that were familiar to Canadians but that do not often arise in the U.S. context. These, of course, are related to open economy issues — in particular, to the relationship amongst the exchange rate, wages, and the terms of trade. In an open economy those three variables interact in a very important manner, and that interaction usually gets submerged in the American discussion, where the basic treatment is of the United States as a closed economy. I think there is a lesson for the analysts of the U.S. economy; they should be less willing to think of themselves as a closed economy. Nevertheless, for those of us who live so close to the United States and who get a lot of our economic framework from the American scene, it is reassuring to see that there are other people out there worrying about variables such as exchange rates and the terms of trade.

Finally, I was really quite intrigued by the extent to which discussions of fiscal policy emerged during the debate. I think that if we had sat down three years ago and talked about the experiences of various economies, fiscal policy would have played only a very minor role in our discussions. Through the course of the 1970s, for a variety of reasons, fiscal policy got second billing in debates about macroeconomic policy — those reasons included the advent of flexible exchange rates, the rise of neoclassical macroeconomics, and the adoption of monetary rules by central banks.

While we did talk about fiscal policy quite a bit, I was also struck by the fact that we didn’t talk about deficits very much, at least not with the same degree of fervour that would have arisen had we been comparing Canada with the United States.

### *The Need for “Rules Stability”*

One question that intrigued me from the outset was the role of ideology in our discussions. Of course, whenever a group of macroeconomists get

together, important ideological or philosophical differences emerge. In the context of this symposium, the question was: To what extent would these differences overshadow those in individual country performance that we were hoping to assess? I asked myself whether we were each going to draw different lessons from the various experiences because we each use different eye glasses with which to examine these experiences: some have neoclassical models in mind, others have post-Keynesian models in mind, and yet others have one of the different perspectives that fall between — or beyond — those two in various dimensions.

For the purposes of my summary, the relevant question seemed to be: What ideology-free lessons are there? The one lesson that kept occurring to me as I listened to people of different persuasions from different countries talking was that policies so often go wrong. Regardless of the commentator's viewpoint or the country under discussion, we almost always ended up with the remark: "that policy didn't work the way we expected it to." It either had different effects on the objective variables to which it was addressed, or it had side effects that had not been anticipated. Consequently, the next year when the government tried to formulate policy, a lot of its attention was not focussed on reacting to new exogenous disturbances that had caused new problems, but rather on trying to undo some of the side effects of past policies.

Let me try to give the sense in which there is an ideology-free "lesson" here. I want to draw a distinction between two aspects of government's role in the economy. On the one hand there is the ideology or philosophy that prescribes a certain degree of government involvement in the economy. By that I refer to the structural role of government that incorporates a decision as to what share of economic activity is going to come under the public sector umbrella, what sort of tax structure to adopt, and those sorts of "rules." I will use the term "interventionism" to describe that ideological position; I want to distinguish interventionism from something that I will, for lack of a better term, call "activism." This usage conforms to that in Chris Higgins's paper, where he also develops the important and related issue of "Policy credibility."

It seems to me that many instances in which government policies go wrong arise not from different views about interventionism but from excessive activism. If that observation is accurate, then we could agree that in most countries economic policy performance would have been improved if whatever philosophic viewpoint were adopted had been carried through in a steadier manner. Policy flip-flops — where the policy tried to react to each new event that came along even if it meant reversing the previous stance rather than simply trying to steer a steady course — are costly to short-run macro performance.

Interventionism, in the sense of being either very free-market oriented or very public sector oriented, may not matter a great deal for short-term macro performance. The various economies appear quite resilient and able to react and perform relatively well under either of those two sorts

of umbrellas. What the economy has trouble responding to are sharp reversals in government policies. These reversals occur when the government sees a new problem come along and feels a responsibility to adjust and fine-tune in response rather than letting the framework it has set up — whichever framework it has opted for — try to respond and cope with the problems.

So, one general lesson is that very often governments try to do too much. To linger on that point for a minute, there's an analogy to microeconomic policy that I think is worth pursuing. The way that the theory of microeconomic policy evolved over the past 25 years, as I understand it, is that economists started with the market as an ideal. As various market imperfections were identified, economists initially accepted them as a *prima facie* argument for government intervention. If the market was imperfect, the "wedges" that arose could be examined and a government policy devised that, in principle, eliminated the imperfection.

Experience with micropolicies has been that very often the policies go wrong — that while the market was imperfect, government policy also turned out to be imperfect. Modern microeconomics involves comparing market imperfections with policy imperfections. I think that it would be healthy if macroeconomists were to conduct more of their debates in this same sort of manner, and that more justification be required for changes in the policy stance.

### *The Role of the Labour Market*

The third general observation I have is that all roads lead to the labour market. No matter how things were divided up — by country or by type of problem — we always ended up talking about the labour market. Labour market issues and labour market policies really dominated much of our discussion. We talked about the different environments in which labour policy is conducted in different countries — some countries are characterized by a consensual framework with lots of cooperation while others are characterized by conflict and confrontation in the labour market. When we talked about differences in performance among countries, labour market differences often came to the fore as a central issue.

In the discussion of Sweden we talked about the role of public versus private wage settlements as an important part of the labour market. Certainly it also has an important role in the Canadian debate. The issue of flexibility, which is something that Pierre Fortin and others have been talking about in Canada recently, also surfaced as a major issue.

We also talked about other micropolicies — incomes policies, the welfare state, and others. One of the things that makes those policies have such a big micro bite is the way they influence the functioning of the labour market. We have even talked about the housing market in the United Kingdom — and David Laidler told us that one of the important



ways in which housing policy influences the performance of the U.K. economy is through the labour market.

Consequently, the labour market received very high billing during this conference. Certainly this is in sharp contrast to what would have occurred had we met 10 years ago; at that time the labour market simply was not a part of the macro debate.

### *Inflation and Unemployment*

The last general observation I have is that if we were simply to listen to the discussion for the past two days, we would be forced to the conclusion that inflation is really a relatively well understood phenomenon, while unemployment is not. I am uncomfortable with both of those statements. I am uncomfortable with the first because I think it is untrue. I am uncomfortable with the second because I think it is too true.

Inflation is a topic that we have not discussed very much. Had we been together two years ago inflation would have been one of the absolute high priority items on the agenda. In this regard, I was very happy to hear Chris Higgins talk about monetary standards; I think it is useful to keep those standards to the fore of macro discussions. I also want to draw attention to his warning that President Reagan may get hit with the same ultimate reaction to his policies that Lyndon Johnson suffered: persistent large deficits are likely to get monetized and hence lead to inflation. I think that we were too sanguine about inflation and too quick to give it low billing in our discussion of problems.

Unemployment is really emerging as a major ill-understood macro phenomenon. Further, the unemployment rate is getting to be a less and less useful summary statistic. It is a dangerous statistic to apply across countries and it is a dangerous statistic to apply across time within any given country. I think it would be useful if we started to focus more of our macro discussions around employment growth rates. We would get a much clearer flavour about macro developments, both internationally and through time, if we at least include, alongside discussions of the unemployment rate, explicit discussion of employment growth. We have found in the past two days that countries which have similar unemployment experiences often have very different employment experiences.

A related point is that multisectoral macro models have really become more and more important. Our discussion has been dominated by relative price changes, structural changes, reallocation of the labour force from one sector to another, and various things like that. The role of structural unemployment over the medium term, which has distinct multisectoral aspects, has also become much more important in the macro debate.

A second related point that I want to make is a direct quote, taken from one of the papers, from Mancur Olson, Jr. It is the simple statement that

in many circumstances, good macropolicy is just good micropolicy. This relates to the issue of sectoral adjustment and the need for flexibility. Micro phenomena can turn into macro problems, and one way to deal with the macro problems is to have better micropolicy. When I made that comment to David Laidler, he responded that this was always the inherent truth in supply-side economics; this was the part of supply-side economics that we were all willing to accept and which was buried in the overstated claims that the supply-side economists were making in other directions.

## **Lessons from the Individual Countries**

### ***Germany***

Uwe Westphal gave us a useful discussion of German monetary and fiscal policy. The German experience with monetary policy is, I think, particularly relevant for Canada. By and large, the German experience of the early 1970s with preannounced monetary rules is very important. We all knew that money and inflation were fairly closely linked, but it was in Germany that the idea of announcing a monetary target in advance and then sticking to it was developed. The idea was that the announcement effect could play a role in influencing the outcome of following a monetary target.

In Canada, that strategy was adopted by the Bank of Canada in 1975, and maintained until 1981. By and large, we in Canada are disappointed with our experience with monetary targeting. The key part of our disappointment is not that we failed to pursue monetary gradualism — although we have debated whether it was too gradual, whether the bank controlled the right aggregate, and that sort of thing. The key lesson, I think, from the 1975–81 episode of monetary targeting is that it was very hard to find any expectations effects at all arising from the announcement of the targets, as opposed to just the pursuit of monetary gradualism itself. Announcing the targets, we thought, was going to help break through some inertias, speed up the response of inflation, and minimize the amount of real output response that would be required to get that inflation down. We did not get any such effect.

This episode provides a striking example of the general proposition that you cannot expect to import a policy and obtain the same effects as the policy had elsewhere: in this case it was because we were not able to import the institutional environment that surrounded that policy. Tripartism was a very big part of the German situation; the announcement of the monetary targets was, if you like, a form of incomes policy there. In Canada we had to rely on voluntarism for the incomes policy analogue, and that did not arise.

This is not to say that we should not have been concerned about

inflation or not used monetary restraint; it is simply an example of a situation where we did not get the full effect of the policy because our institutional setting was so different from that in the country whose experience we were drawing on. (I return to this general point in my conclusion.)

Westphal's discussion of fiscal policy was also very illuminating for the Canadian experience. He highlighted two episodes, oil shocks I and II. Oil shock I occurred in 1973–74, when the German economy was moving into a substantial boom situation with a significant wage explosion. In the face of this explosion, fiscal contraction was introduced in 1973. That fiscal contraction appears appropriate in terms of the state of the business cycle; it looks less appropriate in the face of the unanticipated oil shock that followed.

The OPEC II episode in 1979 looked quite different, in the sense that the German economy was operating with considerable slack. Wages were much less intransigent, and much more of the real wage flexibility than we now tend to associate with discussions of European economies was present. Fiscal policy was expansionary when the oil shock hit.

There are two key aspects of these episodes that we should highlight for the Canadian experience. The first is that the actual effects of the fiscal contraction hinged very much on the wage response to it. The second is that evaluating whether the fiscal policy was appropriate or not hinges very much on the weights you want to attach to reducing inflation versus mitigating the real output effects of the oil shock. It is interesting that in both cases Westphal focussed almost exclusively on the disinflation aspect.

The other aspect of German experience that is relevant came in the discussion of stabilization policy in a federal state. Germany's federal structure appears similar to Canada's. But it is different in a couple of important dimensions. I think it is accurate to describe Germany as being more centralized. It is certainly accurate to argue that German federalism operates in a much more consensual manner — much less confrontational — and that there is less regional diversity in Germany. Nevertheless, there are lessons to be drawn from the German experience. I don't want to take time to expand on those any more than simply to underline the remarks that John Sargent made at the end of the session on macropolicy. (See Summary of Discussion on Papers Relating to the Conduct of Macropolicy in a Federal, Regionally Diverse Economy.)

### *The Netherlands*

The second case study I want to talk about is the Netherlands. I read Michael Ellman's oil shock paper before I came to the conference, and in the first few pages a lot of the problems sounded remarkably familiar. Then I read his discussion of the environment in which policy is con-

ducted; Ellman states that the Dutch central government basically never inflicts its will upon anybody — it simply pulls people together, talks to them and finds out what everybody wants, and then draws out the compromise. There is then a very consensual approach to the formulation of general policy; the analogy with Canada clearly breaks down at this point.

The analogy breaks down in a couple of other ways. One is that the micropolicies, which had rendered the allocative mechanism less efficient, have set in much further in the Netherlands than in Canada. The other is that the diagnosis of the problem is also further ahead in the Netherlands than it is in Canada; the Dutch are actually starting to address the problems in a much more direct manner than we are in Canada.

Ellman outlined three key policies which are now playing a central role in Dutch re-industrialization: budget deficit policy; a program to encourage the growth and development of the market sector; and work-sharing.

Work-sharing doesn't seem to be a real possibility in Canada because we don't have the consensual flavour to our labour relations that seems currently to characterize the Dutch situation. However, the first two policies sounded to me a lot like policies recently introduced in British Columbia; hence we can think of a "Dutch experiment" being conducted on the west coast of Canada. It will be interesting to see how the two sets of policies evolve.

I think the analogy between the Netherlands and British Columbia is worth pursuing for a minute. There are two common issues that I see as being quite important to the outcome of the situation in the two economies. The first issue is what exactly is the state of labour relations going to look like in the medium term? There appears to be considerable polarization in British Columbia at present. How is that going to evolve? The Dutch circumstance looks considerably better, but can we expect the consensual flavour of labour relations to persist through the severe macro adjustments that are currently under way? The second issue is that both economies seem to be counting on a big investment boom to pull them out of the current situation. How much investment occurs in the two economies will be an interesting factor to monitor.

Let me now turn to the "Dutch disease." (I share Ellman's distaste for the term: I think the disease is in the response, not in the shock.) I want to talk about the "Dutch disease" by raising three distinctions.

The first distinction arises from recognizing that two different types of energy shocks can strike an economy. One is when world markets value a resource and you suddenly discover you have more of it; the second is when you are sitting on a resource which the world suddenly decides is worth more. That is, one is a quantity shock and the other a price shock; the two can have very different effects.

To see the importance of this distinction, recall the session where

Ellman discussed the desire to protect energy-intensive local horticultural industries from increases in energy prices (paper 15). We have similar debates in Canada. But that policy response to an energy price shock has little to do with the "problems" for the economy that arise from discovering a larger pool of energy at a given price. In the latter "quantity shock" there is no issue about the change in the opportunity cost of the resource, or whether or not your domestic industries should be paying the opportunity cost.

I want to focus on the issue of quantity shocks because I think that is where some of the anomalies and puzzles for macroeconomists really lie. There are two different stories about the de-industrialization that can result from quantity shocks. Both of them are inherently short term; it is only when policies are introduced which interfere, in one way or another, with the adjustment process that quantity shocks lead to long-term diseases.

The first story corresponds to the Dutch experience, as I understand it, and is the one that I think has the most relevance for Canada. It has to do with an induced change in comparative advantage which calls for a significant structural shift in the economy and a significant reallocation of resources of one sector into another. In Canada such a change has a large regional manifestation to it: in the early 1970s we experienced a big reallocation of resources away from the eastern manufacturing sector into the western resource sectors, and the service sector in the West had to grow to support the large energy boom. In the Netherlands this story involves a slightly convoluted use of the term "comparative advantage." As I understand it, the government sector captured all the rents from the energy discovery and then spent them in the service sector; hence there was a big reallocation of resources away from traded goods into services.

The macro problems that come out of that process are really part of Marshallian adjustment processes with positive quasi-rents arising in some sectors and negative ones in others, thus generating the market incentives to reallocate resources. Macro problems can certainly arise during the course of that adjustment, and one could think of macropolicies that try to minimize the adjustment problems. That process turns into a disease — at one time known as "the British disease" — if, in response to that kind of shock, policies are introduced to prop up the declining sector in order to prevent de-industrialization. Typically the government misreads the signals from the falling profits and employment in the declining sector. Rather than recognizing them as part of a structural change that is in the country's long-run interest, they are falsely identified as a cause of the problem rather than as a response to it.

That situation is quite different from the second "Dutch disease" story which related closely to the U.K. experience with North Sea oil. (The terminology gets confusing here; the term "British disease" that I used in the previous context is really a pre-North Sea oil syndrome.)

In the United Kingdom following the discovery of North Sea oil there

was an increase in demand for sterling assets both through a direct wealth effect and through indirect portfolio effects. The pound sterling in effect became a “petro-currency.” A reasonable presumption would be that some of the owners of that new wealth would spend part of it on British manufactured products so that there was an increase in the demand for British output. But the petro-currency effect causes a sharp real appreciation and a fall in the demand for British manufactured goods. If the petro-currency effects dominate the direct demand effect, you get the anomalous result that a rise in wealth can lead, in the short run, to a fall in demand for output.

In this second “Dutch disease” case, de-industrialization is a short-run macro problem that, essentially, comes from exchange-rate overshooting. The appropriate way to think of it is as a shock to the demand for money, and the appropriate response is a once-for-all increase in the money supply.

This suggests that in looking at the U.K. experience you have to disentangle the effects of North Sea oil from those of Mrs. Thatcher’s contractionary policies. Viewed from that perspective, Mrs. Thatcher had a most unfortunate accident of timing; her demand policies were brought into place at the same time that North Sea oil was operating in this particular way. Viewed from the original “British disease” story — the propping up of declining industries — the timing of Mrs. Thatcher was probably good. But I think the dominant situation in the United Kingdom was that of North Sea oil causing exchange-rate overshooting, and hence the timing of Mrs. Thatcher’s demand contraction policies was extremely unfortunate.

While it was the dominant effect in the United Kingdom, I don’t think this second “Dutch disease” story is of particular relevance for Canada. The Canadian dollar is not in any particular danger of becoming a petro-currency, even if we were to get rid of some of the undesirable features of our National Energy Program. The Bank of Canada is not going to have to worry about a run into dollars; it would be a nice change for the bank, I’m sure, but I do not believe that it is a problem that is going to emerge.

In any event, it is useful to distinguish between those two types of “Dutch disease” stories. I think it is the first one — the sectoral reallocation story and the need to pursue adjustment as opposed to anti-adjustment policies — that is important for Canada.

## *Sweden*

The third country I have assigned for myself to talk about is Sweden. Although I found the discussion of the crisis of the welfare state very useful (paper 4), I am not going to dwell on that at all.

I do want to focus on the real wage problem that is perceived in Sweden. I think that in Canada we have to re-think our approach to the

unemployment pockets that occur in our resource-based sectors; in particular, I think that real wage unemployment is certainly something we have to worry about. It strikes me that there are very important lessons for Canada to learn from the Swedish real-wage problem and the experience with devaluation.

Devaluation can be a perfectly effective tool in reducing the real wage in the short run; its effectiveness hinges on being able to fool somebody. While you can devalue away an excessive real wage for a period of time, if the problem is that your institutions are giving rise to too high a real wage, it is not likely that you change those institutions through a devaluation.

Further, while devaluation will work to reduce the real wage, its effectiveness will be diminished by expectations of further devaluation. In any given situation, devaluation may appear preferable to trying to squeeze down a real wage through a long prolonged recession. But there just are no free lunches — the more often you use devaluation, the less effect on the real wage it is likely to have, and the more its effects will be purely inflationary. That is one reason against devaluing too often. The other problem with using devaluation, I think, is that it can appear to a government as an “easy way out.” Governments that overheat the economy eventually have to ask how they are going to get out of the situation. Since devaluation may have worked previously, they presume that they can use it again. This process sets up incentives for the government not to worry about overheating the economy.

The important messages are:

- The role of devaluation and its interaction with real variables are very important ones for the formulation of Canadian policy.
- The exchange rate is basically a nominal instrument and its long-range effects are going to be on nominal variables.
- The short-term effects of devaluation on real variables are going to be very much influenced by the expectational environment in which they are conducted — devaluation is a game that can be played too often.

The second aspect of exchange-rate policy that I want to mention is one that Ulf Jakobsson did not talk about. Had we talked about earlier Swedish experience, we would have a lesson that would have been helpful in Canada in the mid-1970s. This lesson involves currency appreciation.

Suppose the problem is not that your domestic economy is out of line with the rest of the world, but that your trading partners are inflating. The natural response is to let your currency appreciate and hence insulate the domestic price level from the foreign inflation. But those same forces that favour temporarily reducing the real wage by devaluation in the previous circumstance will now want to resist the appreciation because an appreciation would hurt the competitiveness of their sector in the second situation.



However, the fall in competitiveness will only be temporary. Resisting appreciation in a circumstance where it is foreign inflation that is causing the pressure on the exchange rate leads to imported inflation. That use of the exchange rate as a protectionist device — Max Corden has written a paper called “Exchange Rate Protection” — confuses the nominal and the real effects of exchange rates, and leads to imported inflation in the manner that the Swedish and Canadian economies have both experienced.

The last message from Sweden, which I will simply restate, without comment, was outlined in Jakobsson’s presentation in paper 4: short-run cyclical measures very soon accumulate into structural impacts in the economy. That is certainly a lesson that is well worth remembering.

## *Austria*

The fourth country I have assigned myself is Austria. I have been particularly intrigued by the “Austrian miracle,” as it has been often called. To the extent that I understand it, the “Austrian miracle” seems to be a triumph not of any particular ideology but rather of a consistent and steady application of policy resulting in a constructive economic environment. It is, I think, a testimony to the desirability of rules stability. The Austrian miracle appears to be the result of a mix of successful demand management and cooperative unions. The question that remains is whether it was a one-shot miracle or an on-going miracle, and I think that was the question we were left with at the end of Helmut Frisch’s presentation.

As I understand the explanation, in the mid-1970s, as a result of both explicit social policy and of the relative price changes due to OPEC I, there was a consensus in favour of a fairly sharp structural change which involved an expansion of the service sector. That structural change was accommodated by expansionary fiscal policy which sped up the adjustment process by drawing resources quickly into the service sector. Unlike a lot of other economies, in Austria the cyclical downturn following OPEC I was thus avoided and one-half of the business cycle was eliminated. Hence, when we look at average growth rates over the second half of the seventies, the Austrian experience looks very good because they had avoided one downturn of the business cycle. Given the sharp downturn experienced by other countries, this episode tends to dominate “averages” calculated over the seventies. Furthermore, Austria ended up with the structural situation that it deemed to be desirable — a larger service sector.

When OPEC II came along, Austria could not play the game again because they did not want to expand the service sector by enough to avoid the downturn. Hence the response to OPEC II was different from that to OPEC I.

In this context, Brian Scarfe asked some important questions earlier:



Is there high growth because of the consensus labour market arrangements, or is there consensus in the labour markets because there has been high growth? As we move into the mid-eighties and growth rates are a lot less attractive, is the consensus in the labour markets going to persist?

These questions remain open. It will be interesting to monitor how they are answered in the Austrian situation.

## *Switzerland*

About Switzerland I can be reasonably brief. The more I hear about Switzerland, the more I come to appreciate its uniqueness; and I suspect that such lessons as Switzerland has for us in Canada are negative: for example, "Wouldn't it be wonderful if our industrial structure cut across our regional structure in such a way that you seldom, if ever, got a regional political grouping going for a particular kind of industrial policy?" I heaved a sigh of relief when the question of the watch industry in the Jura came up because it did turn out that the Swiss are, after all, just like other people. It just happens to be an accident of history, as far as I can see, that they don't have as much opportunity to act like other people. I was very alarmed to hear that the Swiss mortgage rate has become a political price. Chris Allsopp will confirm that the alleged exemption of the mortgage rate from market forces was a very important Achilles' heel in competition and credit control in the United Kingdom. There has, of course, in this country been an enormous amount of political pressure exerted to make the mortgage interest rate a political price here, and thank heaven it has been resisted.

The Swiss might get lucky, but if Chris Higgins's predictions about what is going to happen to U.S. policy over the next few years come true, which I fear they might, this particular issue might get the Swiss into a lot of trouble. We Canadians, who have left the mortgage interest rate to be a market phenomenon, will find that we benefit greatly from this, apparently small, bit of political courage on the part of our rulers.

## *Australia*

Australia is the next country on the list, and I guess that is where you might expect to find the clearest and most obvious lessons for Canada. Like Canada it is a federal country, it has a big resource sector, it is a very open economy, it has a manufacturing sector that is always looking for protection; and all the rest of it. The critical difference would appear to be that in Australia there is, if not an incomes policy, then a very centralized mechanism of wage fixing which not so long ago was held up to the world by the advocates of incomes policy as a model that the rest

of us, with our decentralized and very haphazard systems of wage fixing, might look at.

Once again now, in Canada, we have debates about whether we should contract wages more frequently, whether we should try to synchronize wage bargains, whether we should try to do it on a more centralized basis. I think the Australian experience, if I have understood it properly from Robert Gregory, gives us some warnings about that.

The first thing to be said is that, clearly, Australia's centralized wage bargaining, or wage fixing — bargaining is not quite the right word — does give scope for fairly rapid adjustment to across-the-board monetary shocks; and that, surely, is some kind of advantage. At the same time, the Australian experience suggests that it's a very bad system indeed for coping with shocks which require changes in wage differentials between sectors and between crafts. It seems as if the structure of relative wages in Australia is made very rigid by that system. Given the way in which, in Canada, changes in the world terms of trade tend to go along with changes in the internal terms of trade, and given the way in which shifts in the overall level of nation-wide real wages go along with changes in the equilibrium structure of real wages between sectors and between regions, if we were going to move to anything like the Australian system, we would want to look at that aspect of it very carefully and avoid that kind of problem.

If I understand things rightly, the system turned out, in practice, in the 1970s to be a mechanism for freezing the level of real wages. The wages court determined that the Australian real wage should not fall, even though the mineral boom ended. This fact might have had something to do with those step shifts to the right in the Phillips Curve to which Gregory drew our attention. Again, I think the lesson here for Canada is that, before adopting it, we might want to look carefully at a device which is good for adjusting nominal wages quickly across the board, to make sure that that same device does not make real wages even more sticky than they are already.

Gregory can tell me if I have misunderstood any of those lessons. It does seem to me that the Australian experience raises the foregoing important questions vis-à-vis certain reforms that have been bruited for Canada.

### *United Kingdom*

Now to the United Kingdom, and here I could go on forever and ever. First I would like to take issue with Chris Allsopp about the success of incomes policies in the mid-1970s, the Social Contract and all the rest of it. Canadian labour relations are terrible, the wage bargaining is haphazard, there is a lot of antagonism in the system; wouldn't it be nice if we could move toward something that looked a bit more consensual? If we

moved in that direction we would start from a place somewhat like that Britain was in in the early 1970s. I think it is an interesting and relevant question as to whether the Social Contract had any effects whatsoever there, and whether they were beneficial.

I would be inclined to argue that the fall in the U.K. inflation rate in the mid-1970s had a lot more to do with the reversal of monetary policy in 1973/74 than it did with the Social Contract. With the benefit of hindsight, the fact that the inflation rate came down so rapidly at what, also with the benefit of hindsight, looks like so little cost in unemployment but, of course, at the time looked like a horrendous cost in unemployment, might just have something to do with the atmosphere that was generated by the Social Contract. But I think it is important to recognize that it was a contract — there were two sides to the bargain. It is true, I think, that Michael Foot's closed-shop legislation was a direct payoff to the trade union movement for wage restraint. Whether you regard such legislation as desirable or not, it raises great problems in a Canadian context. Here that kind of legislation is up to the provinces and not to the federal government. It is thus very difficult to make that kind of payoff on a national basis in a federal state. I am glad about that, but not everybody might be. However, I think we could agree, in a non-ideological way, that it is a problem that has to be faced.

In the same context, perhaps not so much part of the bargain but closely connected to it, were measures that Doug Purvis mentioned and Bob Gregory also touched upon in the context of the Australian experience. There was an agreement to prop up declining industries — the National (so-called) Enterprise Board essentially became a big bail-out operation for British industry in the mid-1970s, before the oil really came on stream but nevertheless after it was already clear that sterling was going to become a petro-currency. We should remember that by 1973 everybody knew that the oil was in the North Sea. I don't think it's an accident that sterling ceased depreciating at the end of 1973 in the wake of OPEC, the first oil price shock. I think that was directly related to capital inflow, having to do with the fact that the North Sea had suddenly become profitable. In the Australian case, of course, the mechanism for propping up industry was the resort to quotas that helped to stave off the effects of rigid real wages in the manufacturing sector.

Both of these types of policy involved storing up trouble for the future. They involved slowing down structural change that you might have wanted to bring about in the economy. I think experience in the United Kingdom shows very clearly that the adjustment costs are much more horrendous that they would have been in the first place had structural change not already been slowed down. I don't know whether Australia is going to run into that problem or not, or whether it's going to be given a breathing space to get out from under it in a more gentle way, but one of the messages I got from Bob Gregory was that he was worried

that the shrinking of the manufacturing sector in Australia had been slowed down and that the policy was probably delaying a problem rather than offsetting it forever.

Again, what I am really saying is that the message I get here, for the Canadian experience, is that if you have to buy social consensus by slowing down structural change in the economy, it's a deal that might not, in fact, be worth it. I think there is a serious warning for us there.

## *France*

To begin, I would like to run France and the United Kingdom together, because their experience provides an important message having to do with go-it-alone fiscal expansion policies as a means of coping with such problems as unemployment or slow real growth.

Georges de Menil said that he thought the Mitterrand experiment, in some ways, was a mirror image of what had gone on in Germany in the early 1970s; that's one way of looking at it. But the analogy that always comes to mind is that it was almost a repeat performance of the 1972/73 Heath-Barber experiment in the United Kingdom. The Heath-Barber experiment was confused by the first oil price shock and it was possible for adherents of that particular view of economic policy to argue that everything would have come right in the long run if it hadn't been for OPEC. I think in the light of Mitterrand's experience it is very difficult to argue that. There is no obvious external shock that upset the French experiment.

I think we have to be extremely careful to get the right message from the Mitterrand experiment and from the Heath-Barber experiment. Georges de Menil talked in terms of a policy choice for France between staying with the European monetary system and abandoning the fiscal expansion or, perhaps, letting the exchange rate go and resorting to controls and protectionism of one sort or another to keep it going. I think it is worth remembering that in Britain Heath and Barber did let the exchange rate go and, though they didn't indulge in protectionism, they indulged in a lot of wage and price controls instead. Indeed, they were proudly claiming in 1973/74 that what they were pleased to call the "domestic component" of inflation was the lowest in Western Europe. And indeed it was. But, of course, what was happening was that demand pressure was simply spilling over to the exchange rate and you were getting a severe distortion of relative prices, along with the generalized inflation problem. Inflation overall was very high.

The first message we have to get is not that "going it alone" against a fixed exchange rate is a futile operation and that if only you didn't have the fixed exchange rate you could go it alone for longer. The Heath-Barber experience doesn't bear that out. It just says that the consequence turns up as an inflation problem rather than a balance-of-payments crisis problem.

There's a more important message, I think, and that has to do with what used to be called the "convoy approach" associated with the McCracken report. I used to joke with my students about how difficult it is to drive a convoy of locomotives down a narrow path, and I gather that this kind of argument is surfacing again with the names Layard, Dornbusch and Buiter on it. They argue that if only Western Europe could get its act together and all countries could relate at once, the countries wouldn't run into the Heath-Barber problems, wouldn't run into the Mitterrand problems, and could all relate together and get away with it. That is a terrible mistake: there's a crucial fallacy of composition involved here. At this point the U.S.-style closed economy model, in fact, becomes relevant. If the world, or a substantial portion of it, really does reflate in unison, what they are essentially doing is pegging exchange rates among themselves and turning themselves into a closed economy. I would suggest that the experience of the Bretton Woods system from about 1964 onward already tells you what is likely to happen in the situation: you will still get the inflationary pressures; they will not, of course, because they cannot, turn up in the balance of payments or the exchange rate; they turn up instead in the labour market. It may well be that under such circumstances you are able to sustain a boom for a little bit longer but the "long-run" vertical Phillips Curve, if you like, will still come and get you, in a long run that, I suspect, will be shorter this time than it was in the 1960s.

So, I do think that the "somehow if we all get together in a convoy we can do things that we can't do individually" notion is very misleading and dangerous. I think we should recognize that the constraint that got Heath and the constraint that got Mitterrand was a constraint having to do with domestic credit creation running up against a resource constraint in the economy. In those cases its effects came through in a particular way. If you tried to do what they did on a world-wide basis, you would run into the same constraint and get the same inflationary consequences, but the transmission mechanism would be different.

Now, let me come to the last point that I want to make, which really arises from Chris Higgins's talk (paper 16). Doug Purvis was right when he said it's a great comfort to Canadian economists to sit down in a room with economists from places other than the United States and discover that the United States, in many respects, is the outlier and that the smaller open economies have got a lot of problems in common. The problems that we have in common often tend to appear to us as terms-of-trade changes, commodity booms, and the like that hit us from the world out there. But I think we have to be careful to recall that those shocks come from somewhere.

My reading of the economic history of the last 20 years is that with the partial exception of OPEC, the shocks that have been hitting the system and causing us so much institutional strain haven't been coming as *deus ex machina*; they have been policy-induced shocks which largely origi-

nated in the United States under the Bretton Woods system and its successor. What appears to us to be imported inflation and a commodity boom is really the backwash of the U.S. inflation of the early 1970s. The breakdown of the Bretton Woods system which caused us so much trouble was not something that just happened. It was the international monetary system collapsing as a result of a world-wide inflation generated in the United States, as well as differential policy responses across the membership of the Bretton Woods system, which meant that the system could not cope and simply had to go.

I would remind you that all that happened before OPEC really became powerful. The Bretton Woods system was a dead duck before OPEC was formed. This links right back into what Doug Purvis said very early: one of the messages I get from this conference is that whether you think you ought to have a big government sector or a small government sector, whether you think you should have a welfare state or not a welfare state, it appears to be important to conduct policy in such a way that it doesn't inflict random shocks on the economy. It is important, that is to say, that policy is not discretionary and arbitrary and always chopping and changing but that the framework of policy is stable and predictable over time so that the private sector does have time to cope with things.

## **Conclusions**

It is always a potentially useful exercise to examine the experiences of other countries in search of lessons to improve economic performance at home. This symposium has been a remarkably fruitful exercise, both in terms of the broad set of experience that has been distilled, and in terms of the productive discussions that ensued relating the presentations to the Canadian situation.

### ***Negative Lessons***

Probably the most direct lessons that arise from this sort of exercise are the negative ones. Examining the experience of other economies reveals key policy mistakes that we would wish to avoid here. This conference has identified a number of those, including stop-go policies, anti-adjustment policies, exchange-rate protectionism, and a number of policies which inhibit efficient operation of the labour market.

### ***Positive Lessons***

One of the dangers of this type of exercise lies in the expectation that some of the positive policy experiences of other countries can be imported directly. There are two potential pitfalls that often lead to such expectations not being matched by experience.

First, when looking at apparently successful policy ventures abroad, there is a tendency to emphasize only the beneficial aspects of the policy. But most policies also carry with them some costs, and the costs will be imported along with the benefits. Further, the benefit-cost ratio may well depend on the specific circumstances into which the policy is introduced, and hence may differ domestically from what was observed abroad.

The second point is a generalization of this country-specific determination of benefit-cost ratios. It relates to the message which I think has achieved some popular support in terms of the Lester Thurow approach to development of the North American economy: that we should just try to become Japanese. The truth is that it is the cultural and institutional framework that makes certain policies good in other countries, and since that framework cannot be easily replicated domestically, neither can the policy results. This, I think, was clearly shown with the Canadian experience of monetary targeting, and I think applies as well to our envious and admiring glances cast at Japan and at the "Austrian miracle."

There are lessons to be drawn from abroad. The obvious ones are the negative ones — identifying the errors to be avoided. The more difficult ones are identifying those policy ventures that might be adaptable to the domestic situation.

## *Notes*

This paper was presented at the symposium "Lessons from Recent European and Australian Macroeconomic Experience" organized by the Macroeconomic Research Section of the Royal Commission on the Economic Union and Development Prospects for Canada, Ottawa, June 8-9, 1984.

Douglas Purvis prepared the introduction, conclusion, and comments on Germany, the Netherlands, Sweden, and Austria. David Laidler prepared the comments on Switzerland, Australia, the United Kingdom and France.

# Appendix

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## Symposium: Lessons from Recent European and Australian Macroeconomic Experience, June 8–9, 1984

### Agenda

#### *Friday, June 8*

9:30

#### *Introduction*

John Sargent, Macdonald Commission and Department of Finance

9:45–11:15

#### *Germany, France*

(Chairman: Alasdair Sinclair, Dalhousie University)  
Uwe Westphal, Professor, University of Hamburg  
Georges de Menil, École des Hautes Études en Sciences Sociales, Paris

11:30–1:00

#### *Netherlands, Sweden*

(Chairman: Gordon Sparks, Queen's University)  
Michael Ellman, Professor, University of Amsterdam  
Ulf Jakobsson, Swedish Employers' Federation

2:15–3:45

#### *Austria, Switzerland*

(Chairman: Wendy Dobson, Howe Research Institute)  
Helmut Frisch, Professor, Technical University, Vienna  
Jean-Christian Lambelet, Professor, Université de Lausanne

4:00–5:30

#### *Australia, United Kingdom*

(Chairman: William White, Bank of Canada)  
Robert Gregory, Professor, Australian National University  
Christopher Allsopp, Oxford University



7:00                      *Reception and Dinner*  
 (Chairman: David Smith, Macdonald Commission and Queen's University)  
 Christopher Higgins, Director, General Economics Branch, OECD

**Saturday, June 9**

9:00–10:30              *The Conduct of Macropolicy in a Federal, Regionally Diverse Economy*  
 (Chairman: Pierre Fortin, Université Laval)  
 Uwe Westphal  
 Jean-Christian Lambelet

10:45–12:15            *The Role for Incomes Policy in Macroeconomic Strategy*  
 (Chairman: John McCallum, Université du Québec à Montréal)  
 Helmut Frisch  
 Georges de Menil  
 Ulf Jakobsson

1:30–3:00                *Macroeconomic Response to Export/Real Exchange-Rate Shocks*  
 (Chairman: Brian Scarfe, University of Alberta)  
 Christopher Allsopp  
 Michael Ellman  
 Robert Gregory

3:15–5:00                *Wrap-up*  
 Discussion Leaders: Douglas Purvis, Queen's University, and David Laidler, University of Western Ontario

**Participants (\*Guest speakers)**

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Albo, Greg	Carleton University
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**Georges de Menil:** After graduating from Harvard, received a Ph.D. in economics from MIT in 1968. From 1968 to 1974 he taught at Boston College and Princeton University. For the next two years he was responsible for the construction of METRIC, a large-scale quarterly model of the French economy used for official, budget-related forecasts. In 1978 he founded and became first director of the Centre for Quantitative and Comparative Economies, École des Hautes Études en Sciences Sociales, Paris, an institute which conducts research and organizes international conferences on macroeconomic policy in major industrial countries, east and west. In addition, he is founder and co-chairman of the International Seminar on Macroeconomics, an annual meeting of European and American economists devoted to the study of macroeconomic policy issues in the industrial countries. From 1981 to 1983

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**Michael Ellman:** Studied at Cambridge, London and Moscow universities and obtained his Ph.D. at Cambridge. He was subsequently a lecturer in economics at Glasgow University, and then a senior research officer at the Department of Applied Economics and fellow of Fitzwilliam College, Cambridge University. Currently he is professor of economics at the University of Amsterdam. He has specialized in the study of economic planning under socialism and his published works include the use of mathematical planning methods in the USSR and the economics of the collectivization of agriculture in the USSR (*Planning Problems in the U.S.S.R.*, 1973, *Socialist Planning*, 1979, *Collectivisation, Convergence and Capitalism*, 1984). He has also acted as a consultant to the Dutch government, the UN, and banks and political parties in the Netherlands, and is interested in economic policy in Western Europe. He has published several papers on economic developments in the Netherlands, including "Natural Gas, Restructuring and Reindustrialisation: The Dutch Experience of Industrial Policy," in T. Barker and V. Brailovsky, eds., *Oil or Industry* (1981), and "The Crisis of the Welfare State — the Dutch Experience," in K. Boulding, ed., *The Economics of Human Betterment* (1984).

**Helmut Frisch:** Educated at the universities of Graz and Vienna in economics, mathematics and statistics, Frisch has taught at Princeton, Yale and Berkeley in 1968–69, at the Institute of Advanced Studies in Vienna in 1969, and at the University of Linz in 1970. Since 1971 he has been professor of economics at the Technical University of Vienna. His activities include being head of a research program from 1972 to 1975 on the causes of inflation in Austria (supported by the Austrian National Bank) and, since 1970, a consultant of the United Nations Development Organization (UNIDO) in Vienna. He is author of "Inflation Theory: 1963–1975: A Second Generation Survey," *Journal of Economic Literature*, 1977, *Die Neue Inflation — theorie* (1980), and *Theories of Inflation* (forthcoming). In addition, he has written many articles on inflation in small countries, inflation theory, and macroeconomic adjustment in open economies. In 1981 he was the editor of *Schumpeterian Economics* (Eastbourne, 1981).

**Robert Gregory:** Educated at the University of Melbourne and at London School of Economics and Political Science, where he received

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**Christopher Higgins:** Graduated from the Australian National University in economics, statistics and mathematics and received his Ph.D. in economics from the University of Pennsylvania. Returning to the Australian Bureau of Statistics in 1968, he initiated the development of an econometric model for forecasting and policy analysis which remains in use by the Australian administration. In 1970 he moved to the Australian Treasury, initially in the Short-Term Forecasting Section and later as a senior policy adviser. His most recent post in this organization was as assistant secretary, Fiscal and Monetary Policy, and before that assistant secretary, Economic Conditions. Subsequent to this he became minister, Economic and Financial Affairs, with the Australian Delegation at the OECD. In 1981 he was appointed director of the General Economics Branch of the Economics and Statistics Department at the OECD. He has made contributions to the Australian and international scholarly literature in applied economics and has retained close links with the academic world, teaching part-time in Australia and spending some 18 months at the universities of Pennsylvania and British Columbia in the mid-seventies.

**Ulf Jakobsson:** Received his Ph.D. in economics in 1974 at the University of Lund, Sweden, after studies at Lund and the University of California at Berkeley. He has been a research economist at the Industrial Institute of Social and Economic Research in Stockholm, a research fellow at Harvard University, and an economic adviser to the Swedish government (1977–82). Among his responsibilities in the latter position was the preparation of the government medium-term surveys. Currently he is chief economist at the Swedish Employers' Confederation. He has written books and articles on economic policy, planning and forecasting, taxation and income distribution.

**Jean-Christian Lambelet:** Studied at the Université de Lausanne and at Harvard, where he received his Ph.D. in economics in 1969. From 1970 to 1972 he was assistant professor at the Department of Economics and

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**John Sargent:** Research Coordinator for the Macroeconomics section, which is part of the Economics Research Area of the Royal Commission on the Economic Union and Development Prospects for Canada. He graduated from McGill University, Montreal, in 1964, where he took First Class Honours in economics and political science. After completing his graduate studies in economics at M.I.T. and Cambridge University, England, he taught economics at Queen's University, Kingston, specializing in fiscal policy and public finance. In 1971 he joined the Department of Finance, where he works in the areas of fiscal policy and macroeconomics, fiscal forecasting, and government expenditure management. Dr. Sargent is currently Assistant Deputy Minister, Financial Sector Policy Branch, Department of Finance.

**Uwe Westphal:** Received his university education at the University of Kiel (West Germany), Ph.D. in 1967 and Habilitation in 1969. Subsequently he was a member of the research staff at the Institut für Weltwirtschaft and, since 1971, a professor of economics at the University of Hamburg. His interests include policy analysis and forecasting with the macroeconomic model SYSIFO. His publications include *Theoretical and Empirical Studies in the Demand for and Supply of Money* (1970) and *Stabilization Policy in France and the Federal Republic of Germany* (with Georges de Menil).

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\*Kenneth Norrie and John Sargent co-directed the final phase of Economics Research with David Smith

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## Foreign Macroeconomic Experience: A Symposium

JOHN SARGENT, Research Coordinator

This is the sixth of seven volumes dealing with **Macroeconomics** (see list in back of book), included in the Collected Research Studies of the Royal Commission on the Economic Union and Development Prospects for Canada.

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JOHN SARGENT, Research Coordinator for the section on **Macroeconomics**, is currently Assistant Deputy Minister of the Financial Sector Policy Branch, Department of Finance.

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