Catalogue no. 13-604-MIE — No. 049
ISSN: 1707-1739
ISBN: 0-662-42239-2

Research Paper

Income and Expenditure Accounts Technical Series

Trends in Saving and Net Lending in the National Accounts

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Trends in Saving and Net Lending in the National Accounts

This note examines the substantial shifts in sector saving and the resulting swings in sector surplus/deficit positions in the national accounts over the last 10 years. It also serves to introduce a new conceptual measure in the Canadian System of National Accounts — National saving and the national saving rate.

Ottawa
November 2005

Catalogue no. 13-604-**MPB** no. 49
ISSN: 1707-1720
ISBN: 0-662-69520-8

Catalogue no. 13-604-**MIE** no. 49
ISSN: 1707-1739
ISBN: 0-662-42239-2

Published by authority of the Minister responsible for Statistics Canada

The paper used in this publication meets the minimum requirements of American National Standard for Information Sciences - Permanence of Paper for Printed Library Materials, ANSI Z39.48 - 1984.
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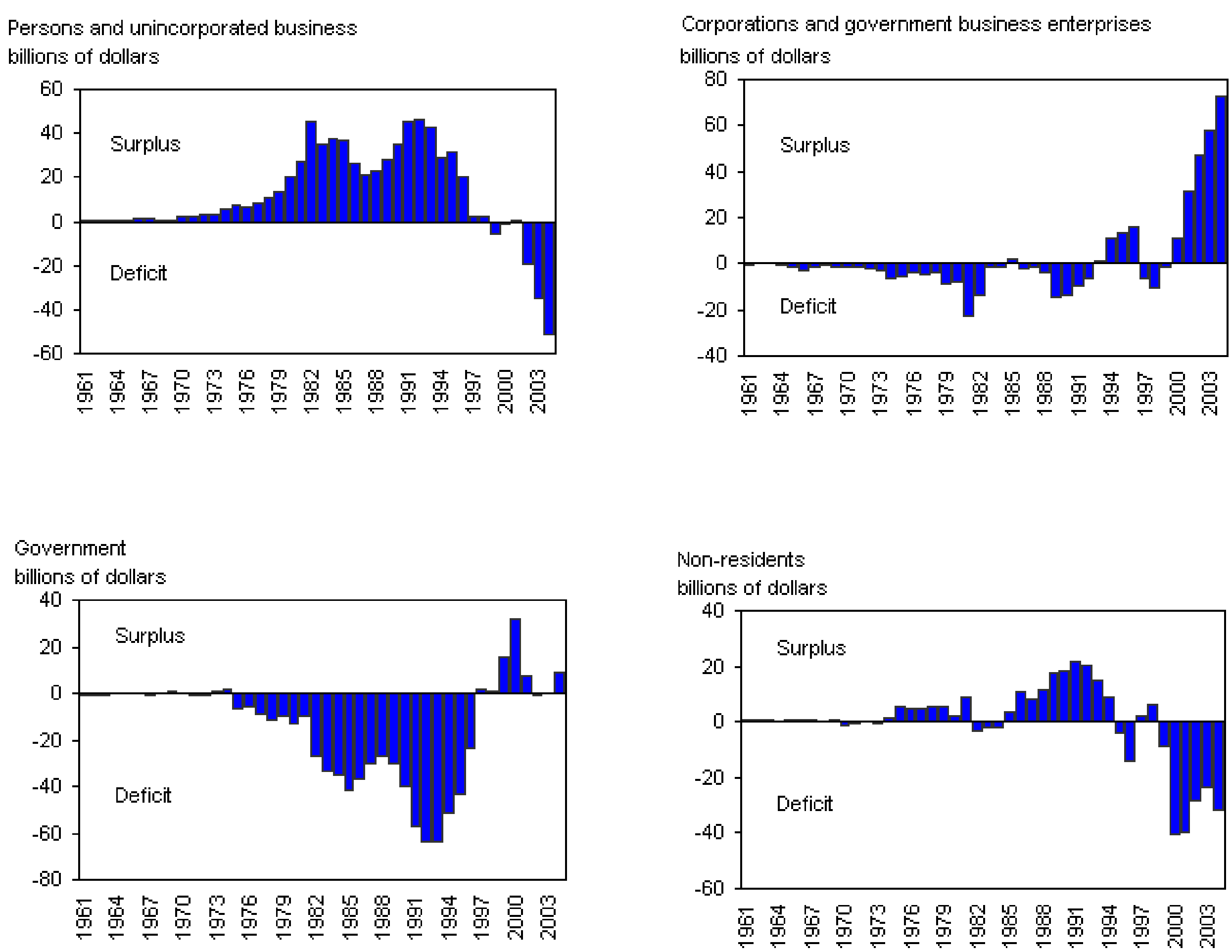
Trends in Saving and Net lending in the National Accounts

Introduction

Heightened interest with respect to the trend in household saving continues, in light of the decline in the trend of the personal saving rate. This decline began in earnest during the 1990s and has continued to reach current historical lows. Given the established past prominence of personal saving in the financing of aggregate investment, these concerns are not surprising.

Fluctuations in the personal saving rate are affected by a number of factors, including income growth, changes in wealth, inflation and interest rates. In addition, longer-term factors, such as demographic effects, can affect the trend in the saving rate. Personal saving and the saving rate have been under scrutiny by analysts in recent years because it is in decline and is perceived by some to be too low. In the early 1980’s, with historically high nominal interest rates and during a deep recession, it was similarly cause for concern as the saving rate grew sharply and was considered too high by some analysts. Notably, statisticians have not altered the way in which personal saving is calculated.

Chart 1. Substantial shifts in net lending or borrowing by sector, 1961-2004



Despite the downward trend in personal saving, evidence suggests that there has not been a saving deficiency in the economy – quite the opposite. Significant changes have resulted in increased saving flows of other sectors which have more than compensated for the decline in personal saving and have changed net lending or borrowing position of the sectors (Chart 1). Further, evidence suggests that the economy has become self sufficient since 1999, in terms of the financing of investment.

This short note looks at the nature of these structural changes in the economy, with particular emphasis on the last decade. In the process, it summarizes the principal factors behind the evolution of saving and net lending of the four main sectors of the economy – persons, and unincorporated business, corporations, governments and non-residents – as well as examines the link to aggregate saving.

Saving, investment and net lending or borrowing concepts

For the sectors of the economy in the *Income and Expenditure Accounts*, saving is calculated as current income less current expenditure. This saving, combined with capital consumption allowances and capital transfers is gross saving and is used to finance gross investment expenditure in the economy – the aggregate saving equals investment relationship.

The financing of investment in the economy is actually quite complex, with some funds for sector investment arising from within that sector's own saving (internally generated funds) whereas other funds must be acquired from other sectors. The degree to which other funds are transferred among the main sectors of the economy, for investment purposes, is reflected through the sectors' net lending (surplus) or borrowing (deficit) position.

For each sector, non-financial capital acquisition (gross investment) is subtracted from gross saving to yield its surplus or deficit position. Surplus sectors net lend to other sectors, and deficit sectors net borrow from other sectors. This process is achieved through financial transactions in the various financial markets, and is fully articulated in the *Financial Flow Accounts*[1]. At the economy-wide level, the sectors' net lending or borrowing positions sum to zero — such that all aggregate saving has been allocated to aggregate investment.

Personal saving is one of the major components to changes in household wealth. The other principal component is capital gains. The evolution of household wealth can be monitored in the *National Balance Sheet Accounts*.

Personal sector[2] saving continues to plunge as financing requirement of households expands sharply

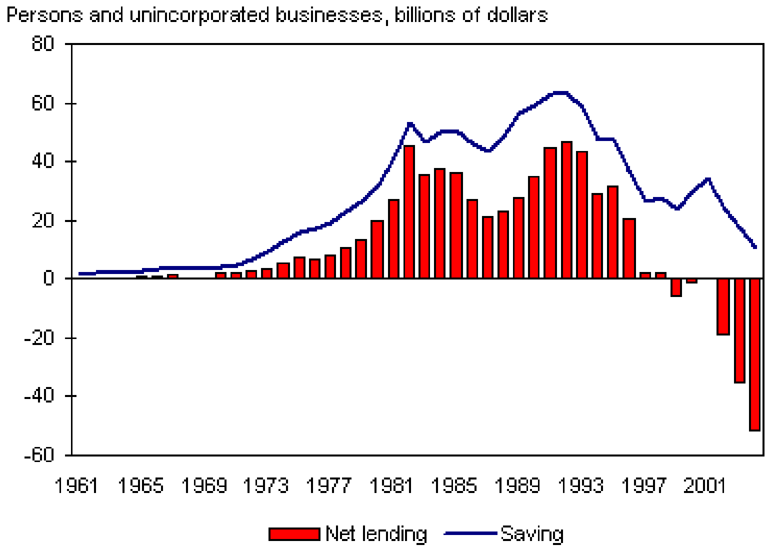
Since the early 1990's, growth in consumer expenditure has generally outstripped growth in personal income, leading to a downward trend in saving (Chart 2). This was partly the result of some degree of pent up demand emerging from the economic slow-down that began in mid-1990 and following a decade of double-digit interest rates. A shift to single-digit interest rates in December 1990, combined with a generally downward trend in the cost of borrowing since that point, has encouraged borrowing and facilitated the strength in consumer expenditure though most of the 1990s. Also somewhat evident over this same period was an increase in household financial wealth, reflecting buoyant stock markets. This suggested that individuals were beginning to modify their wealth accumulation behaviour, essentially substituting capital gains (price appreciation of assets) for saving out of current income – providing some evidence of a wealth effect on consumption.

Following the stock market melt-down in 2001, there was a shift out of financial wealth and into non-financial wealth, which helped to support the housing boom in that period. Growth in consumer expenditure accelerated at the same time as housing investment reflecting, to an extent, a corresponding demand for household furnishings. This resulted in further declines in personal saving over that period (Chart 2).

1. The vast majority of financial market transactions are indirect ones – that is they flow through the financial institutions in the economy. This is why the emphasis is put on types of financial institutions in the Financial Flow Accounts. This set of accounts shows, in great detail, the sources and uses of funds in the economy.

2. The personal sector includes persons (often referred to as households) unincorporated business (UIB) and non-profit institutions serving households (NPI). UIB and NPI are consolidated in the personal sector and cannot, in the current national accounts' format, be broken out. However, this sector is dominated by persons, and this note will refer to the household or personal sector.

Chart 2. Personal sector deficit since 2001 in line with decline in saving and increase in housing



While household demand has provided a strong basis for economic growth since 2001, the household sector also slipped into a chronic deficit (net borrowing) position for the first time since statistics have been recorded (Chart 2). The personal sector, which has traditionally lent substantial funds to the rest of the economy, has now developed a sustained requirement for external financing.

Despite the downward trend in personal saving and the corresponding rise in debt, household wealth has continued to accumulate at a good pace. Therefore, gains in the value of household assets suggest that the financial position of the personal sector as a whole has in no way deteriorated. This is evident in the fact the household leverage – debt to net worth – has not materially increased in recent years, despite the sustained demand for borrowed funds.

Aging of the population will likely continue to play an increasing role in the evolution of personal saving, reflecting the retirement pattern of the baby-boom generation. Notably, in recent years, there has been acceleration in pension benefit payments, in line with the early part of this demographic phenomenon. In the national accounts pension benefit payments of retirees are not treated as current income, but rather as a draw-down of financial assets. This draw-down of assets may be from large employer-sponsored plans (e.g., Ontario Teachers' Pension Plan Fund) or from individual plans (e.g., RRSPs, RRIFs)[3]. Therefore, the growing numbers of baby-boom pensioners will continue to consume, but using a source of funds other than income – that is, dis-saving in financial instruments. This will put further downward pressure on personal saving.

Non-resident sector[4] deficit driven by demand for Canadian exports

Since the late 1990's, the emergence of a sustained trade surplus in goods has also provided stimulus to the economy in a number of quarters. Strengthened goods exports and lower interest payments abroad were also the significant force behind the development of a trend to an overall Canadian balance of payments (BOP) current account surplus for most of this period. This BOP surplus meant that Canadian exports exceeded Canadian imports, and this development has generated negative saving[5] for non-residents vis-à-vis Canada (Chart 3).

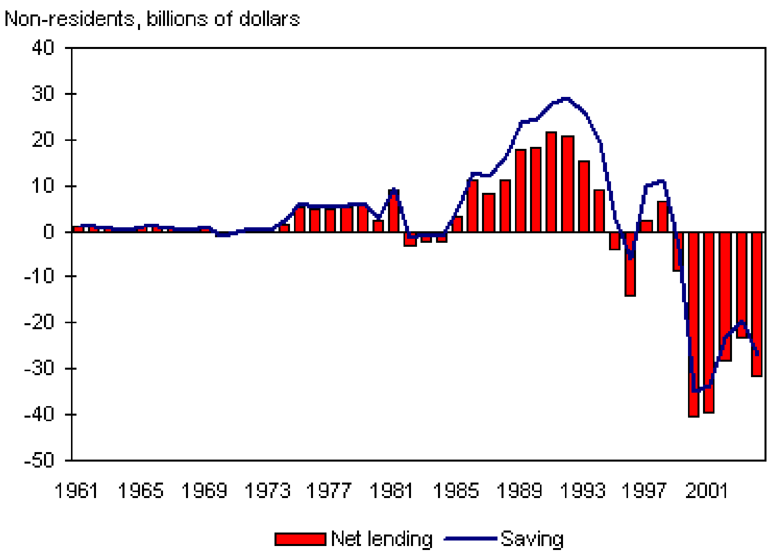
3. The income that generated the accumulation of pension assets over the years was part of saving in the past. Current income earned on retirement investments is part of current saving.

4. The non-resident sector is an amalgamation of transactions (and positions in the case of the balance sheet accounts) of the persons, governments and corporations sectors with non-residents. These transactions are included in the total economic activities of these sectors, but are broken out separately in the non-resident sector. The non-resident sector is the inverse of the balance of payments data.

5. This is non-resident saving and net lending or borrowing on a national accounts basis, as opposed to a balance of payments account basis.

Therefore, instead of supplying funds for investment to the Canadian economy, as had been the case for many years, non-residents have more recently begun to rely on Canadian saving – that is, borrowing from Canada on a net basis. Adjusting saving for net international capital transfers shows that the net lending or borrowing position of non-residents has mirrored the pattern in their saving. As this trend in the BOP surplus continues, along with other factors. Canada has been moving away from being a net international debtor nation.

Chart 3. Non-resident sector deficit since 1999 reflects balance of payments surplus



Corporate sector[6] saving and net lending trends driven by profit growth

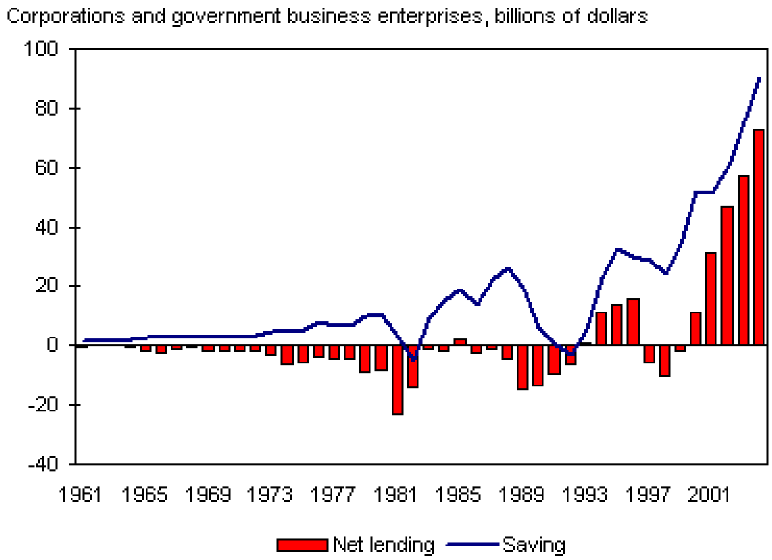
Increased sales to households (the flipside of household expenditures), through most of the 1990's, have contributed to healthy earnings for corporations over most of this same period. An acceleration of household demand since 2001 has further strengthened profit growth. This development, combined with an upswing in sales to non-residents since 1997 – principally in the form of goods exports – has largely accounted for the increases in revenues and corresponding boom in corporate profits in recent years. The downward trend in interest rates would have had a dampening effect on corporate expenses, thus also helping to support the bottom line. Strong profit growth, in turn, has driven the gains in undistributed earnings[7] – that is, corporate saving.

Corporate saving has moved sharply upward from mid-1997, thus providing growing supply of internal funds for investment purposes (Chart 4). However, slower growth in capital formation in recent years, has led to a build-up of a substantial and expanding surplus – or, net lending position. This has placed the corporate sector in a new role – that of increasingly supplying funds to the rest of the economy.

6. The corporate sector (including government business enterprises) is a combination of all incorporated entities in the Canadian economy. It is dominated by non-financial corporations, but also includes significant values for financial institutions (e.g., banks, insurance companies). Holding companies are largely included as financial institutions. The corporate sector also includes Special Purpose Entities (SPEs).

7. That represents after tax, after dividend, earnings on a national accounts' basis.

Chart 4. Upswing in undistributed earnings drives corporate surplus since 1999



These recent developments have helped corporations re-structure their balance sheets. In aggregate, allowing from some fluctuations over the quarters, it is fair to say that both corporate leverage and liquidity positions have improved substantially since the early 1990's. It can be argued that this development bodes well in terms of the outlook for business investment.

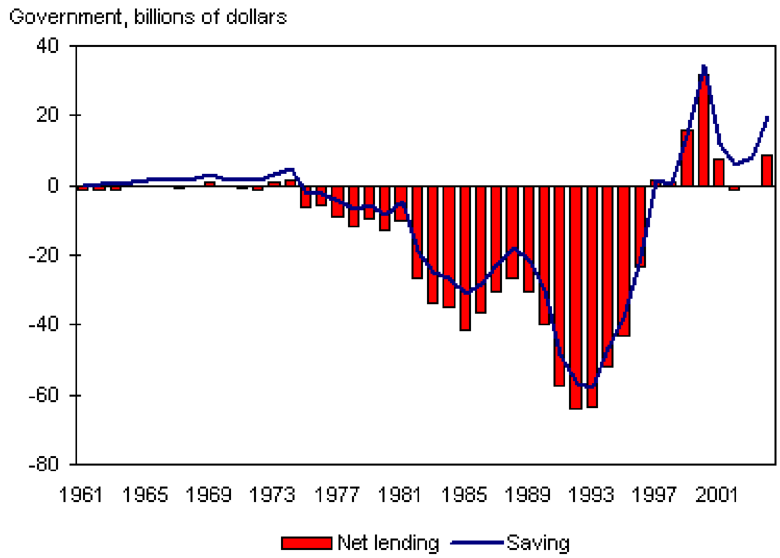
Government sector[8] surplus maintained

The impact of the upward trend in corporate saving has been further supported by developments in the government sector. Following years of deficits, the emergence of a sustained surplus in the government sector in 1997 was a significant event.

The surplus originated in the federal government and eventually extended to the provincial government sector. The surplus was the result of a number of factors. These included: an emphasis toward tighter fiscal management and deficit reduction efforts by levels of government that were initiated several years ago; the impact of changes to the tax system; and, a strengthened economy, which generated increased tax revenues, under a regime of relatively low interest rates and inflation emerging from the recession in the in the early 1990's.

8. The government sector includes federal, provincial and local governments, as well as social security funds. The total government sector is a combination of these levels of government.

Chart 5. Government sector surplus follows many years of deficits



The sustained surplus adds to the government sector's ability to provide infrastructure investment, among other things.

Economy perspective shows saving on the rise

There have been some significant structural shifts in the economy, in terms of the net lending or borrowing positions of the sectors. Traditional surplus sectors – households and non-residents — in Canada have moved into deficit positions while traditional deficit sectors (corporations and governments) have generated surplus positions. Similar structural changes have been evident in other post-war developed economies.

The more high profile shift has been in the evolution of the personal sector from a net supplier of funds to the economy, reflected in slower financial asset investment and stronger borrowing. Analysts are concerned about this from two perspectives. First, how long can a deficit position be sustained by households, without adverse effects on the financial heath of the sector that could spillover to the economy; and, second, what does this shift imply for the financing of investment, and its impact on economic growth? This note can shed some light on the second question.

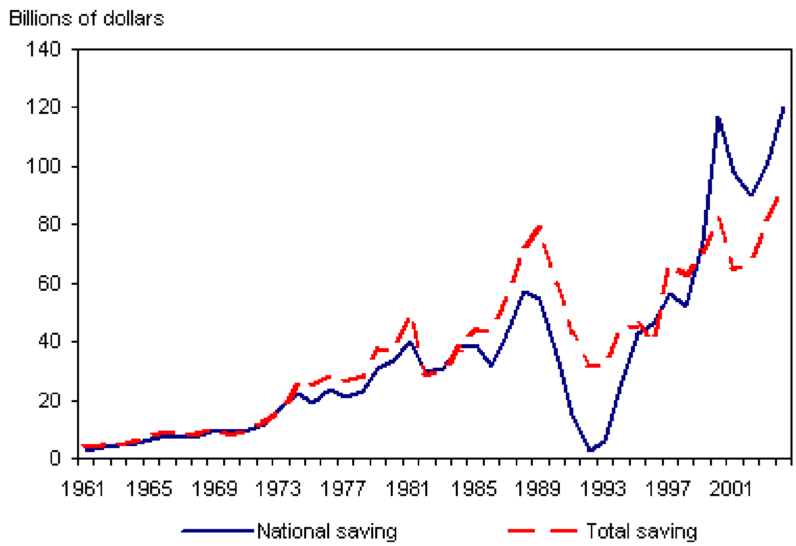
Investment demand and national saving

More fundamentally, the question might be: Are there sufficient funds to finance investment demand in the economy? To address this question, the analysis looks to macro measures of saving. Aggregate saving is total saving provided by the four main sectors of the economy. National saving is the saving provided by the national economy (that is, persons, governments and corporations) to finance aggregate investment. The gap between aggregate gross saving and national saving represents the extent to which Canada relies on funds from abroad to finance capital expenditure.

While this reliance on funds from abroad has historically been significant, even during the time frame where the personal sector was supplying substantial funds for investment purposes, this is not currently the case. For the last ten years or so, Canada has continued to generate more than enough funds to finance investment (Chart 6), despite the sharp declines in personal saving. In fact, the results suggest that the economy is currently self-sustaining in this respect, in the sense that the national supply of funds meets the national demand for funds.

Further, Canada has more recently evolved to become a net supplier of funds to the rest of the world[9]. The structural changes in the economy suggest that it may be relevant to follow the trends and fluctuations in national saving.

Chart 6. Significant national saving since 1999



These structural changes also underline the necessity of monitoring changes in sector saving and surplus or deficit positions in order to fully assess the outlook for investment. It is important to keep in mind the systemic relations within and between sectors of the economy[10]. While economic agents that compose the sectors pursue their economic goals with relative autonomy (for example, the consumption pursuits of households, the investment strategies of firms), these agents are clearly related in numerous ways: For example, households receive payment for labour services from firms; and, firms receive payment for goods and services purchased by households.

Underlying the net lending or borrowing positions of sectors are credit relations between agents. In a credit relationship, the affordability of debt is an important dimension. Several factors that affect the affordability of debt include interest rates, income growth, the rate of inflation, existing debt loads, and liquidity. Therefore, the financial transactions detail[11] underlying net lending and borrowing as well as the financial positions of the sectors[12] are also essential to understand when assessing the outlook for investment. Clearly, it is becoming more important to understand what saving and borrowed funds are being used for. Further, it may become important to understand how changes in sector finances affect aggregate demand in the immediate term and production capability in the longer term.

National saving rate

A national saving rate can be derived by scaling national saving to national income[13]. The national saving rate (Chart 7) paints a markedly different picture than does the personal saving rate, since the early 1990's. These differences highlight the national saving rate.

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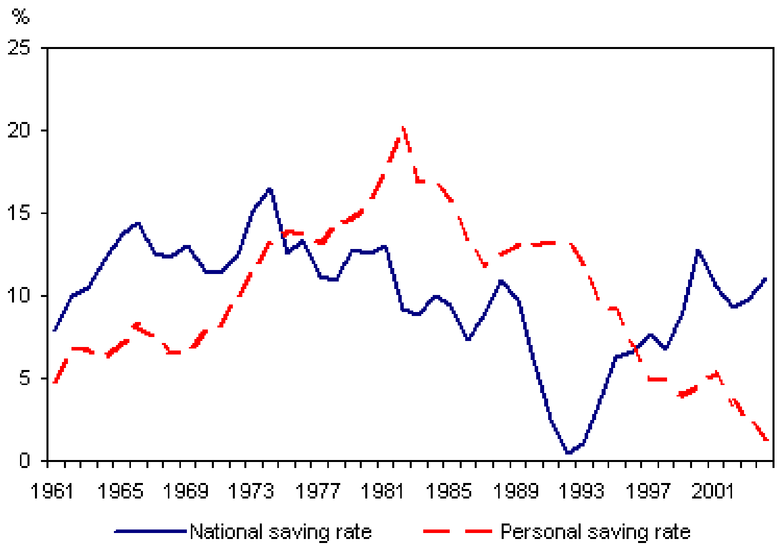
9. This has been largely reflected in increased direct and portfolio net investment abroad.
10. We see such relations in the national accounting identity where the net lending or borrowing positions of all sectors sum to zero.
11. In the Financial Flow Accounts
12. In the National Balance Sheet Accounts.
13. Defined as: Net national income at basic prices, plus taxes less subsidies on products, less current transfers to non-residents, plus current transfers from non-residents.

Chart 7. National saving rate on the rise since 1992



Summary

This note makes the case that the evolution of sectors' saving and net lending or borrowing positions provide important indicators of changes in the economy. These changes, in concert with other developments, shed light on the outlook for investment and economic growth. In addition, this note highlights national saving's role in the financing of investment.

With this release new national accounts aggregates are introduced: National saving and the national saving rate. In the process, Table 15 in the *Income and Expenditure Accounts* is expanded as follows:

34. Saving
35. Less: Non-residents saving
36. Equals: National saving
37. National income
38. National saving rate

It is hoped that these new data are useful to national accounts users.