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THE REAL ESTATE BUBBLE PHENOMENON: THE CURRENT SITUATION IN NORTH AMERICA AND ITS ECONOMIC CONSEQUENCES FOR CANADA

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SUMMARY

Following the bursting of the stock market bubble in the information and telecommunications technologies sector, a number of observers are now concerned that a real estate bubble may be building. This document investigates the phenomenon of the real estate bubble. It describes the main factors that characterize the presence of a real estate bubble and looks at recent developments in the Canadian and American real estate markets. It considers the possible consequences of the bursting of a real estate bubble on the Canadian economy, while pointing out that the risks of such an eventuality are higher in the United States.

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THE REAL ESTATE BUBBLE PHENOMENON: THE CURRENT SITUATION IN NORTH AMERICA AND ITS ECONOMIC CONSEQUENCES FOR CANADA

INTRODUCTION

In the summer of 2002, experts and reporters around the world began to express concern regarding potential real estate bubbles in a number of industrialized countries. The situation is reminiscent of the information technology and telecommunications bubble that burst in 2000-2001, producing a strong correction in stock markets and evaporation of assets evaluated at many billions of dollars worldwide.

It is important to know whether or not a real estate bubble exists because a bursting bubble has serious and long-lasting fallout across the economy and financial markets. In this era of globalization, severe economic shocks soon affect virtually all national economies, as evidenced with the Asian financial crisis in the second half of 1998.

At present, consumption, specifically real estate and related activity, remains one of the only real drivers of economic growth in North America and a number of European countries. Some of this consumption is currently fuelled by growth in the value of household real property assets, a situation similar to that enjoyed a few years ago by paper capital gains earned on the stock market. A change in consumption stemming from a change in asset value is commonly referred to as a "wealth effect." A study(1) by a group of American economists, covering 14 countries including Canada, shows that for every 10% increase in the stock market, household consumption increases by between 0.2 and 0.3%; for each 10% rise in the housing market, consumer spending rises 0.62%. Based on the fact that, in OECD countries, the value of

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(1) Karl E. Case, John M. Quigley and Robert J. Shiller, "Comparing Wealth Effects: The Stock Market Versus the Housing Market," Cowles Foundation discussion paper no. 1335, Yale University, New Haven, Connecticut, October 2001.

household residential real estate assets is currently US$40 trillion, compared to US$23 trillion[(2)] for stock market investment (securities), it is easy to understand the impact of fluctuations in housing prices on consumption, consumer confidence, and the world economy.

This paper examines the real estate bubble phenomenon and its impact on the economy, specifically Canada's economy. The first section describes the phenomenon, including the criteria generally used to detect a bubble's existence, as well as the bursting of a real estate bubble and the general repercussions on the economy. The second section examines recent trends in the real estate market: the transfer of savings from stock markets to real estate markets and the current state of the Canadian and U.S. real estate markets, which is leading some observers to suspect that a real estate bubble is forming. Finally, the paper looks at the mechanics of the American mortgage market as a tool for consumption and indebtedness, and draws conclusions with regard to Canada.

THE REAL ESTATE BUBBLE PHENOMENON

A. The Formation of a Real Estate Bubble

Formation of a real estate bubble traditionally results in a rapid rise in real estate prices and mortgage credit. In an economic recovery, improved job outlook and increased buying power promote real estate investment by households and businesses. Demand increases, supply is fairly tight in the short term (it takes time to build new housing and rental accommodation), and prices and rents go up. Eventually, builders and investors increase supply.

As climbing prices attract new buyers seeking appreciation, cyclical acceleration promotes speculation. A prolonged and *self-sustaining* acceleration in prices signals market over-evaluation, i.e., a real estate bubble. Because of the rise in both price and demand, the volume of outstanding loans increases and mortgage credit accelerates. Lenders contribute indirectly to market price increases when they support demand by arranging financing for potential buyers.

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(2) *The Economist*, "Global house prices: As safe as what?," 29 August 2002.

B. Identifying a Real Estate Bubble

Although everyone can see the cyclical growth of housing markets and recognize the existence of a real estate boom, not everyone agrees on whether or not we are experiencing a real estate bubble. How can one tell if the rise in prices is based on solid and sustainable economic or demographic factors rather than irrational optimism among market players? A number of criteria have been defined for detecting the existence of a real estate bubble:

1. steep increases in the real price (housing prices adjusted for inflation) of new and existing houses;
2. price increases affecting all segments of the real estate market;
3. price increase not restricted to a few urban centres;
4. widening gap between price growth and household ability to pay;
5. in rental markets, prices that rise more quickly than forecast return to landlords.

The relationship between housing prices and mortgage payments on the one hand and household income on the other is a good indicator of whether or not a real estate bubble is forming. It is almost impossible, however, to measure the actual presence of a bubble; the fact that it existed is confirmed only when it has burst.

C. The Bursting of a Real Estate Bubble

Interest rates play a key role in the formation and bursting of a real estate bubble. Initially, falling or relatively long-term low interest rates stimulate price increases and an influx of buyers and capital. At a given moment in the price expansion phase, some people hesitate to enter the market due to the high prices, some property owners see returns shrink, others wish to sell to realize equity or because they are unable to keep up with mortgage payments following a downturn in their personal financial situation.

A rise in interest rates signals that the market has peaked. From that time on, the cost of owning a dwelling increases, demand decreases, and price increases decelerate. If rate hikes continue, prices drop fairly quickly and the bubble eventually bursts. Thousands of households suddenly find themselves with a debt level greater than the market value of their property.

D. The Repercussions of a Bursting Bubble: Deterioration of the Banking System, Household Debt and Credit Rationing

The immediate effect of a correction in housing prices or the bursting of a bubble is depletion of the wealth effect and an attendant negative impact on household consumption. This mechanism is only partly offset by a downward adjustment of rents and the attendant positive impact on income. These features mark the cyclical slowdown of the economy.

A downturn in the real estate market can have the same sort of destabilizing effects on the banking system as that witnessed in relation to the meltdown of the information technology and telecommunications industries. Investors drawn by expected capital gains can find themselves unable to pay off their debts, especially short-term loans made when interest rates were on the rise. During a sharp downturn in economic activity, some households that took out mortgage loans may, if their financial situation deteriorates, be unable to honour the debt.

Finally, the access of economic agents to credit (including non-mortgage credit) is more restricted. Financial institutions make many loans secured by collateral, more often than not real property assets. When prices fall, everything else being equal, the borrower's capacity is reduced.

The bursting of a real estate bubble can also produce a crisis in the banking system: consider Alberta in the early 1980s, the Savings and Loan crisis in the United States and, even more spectacular, the Japanese crisis in the early 1990s. For financial institutions, the rising volume of non-performing loans reduces profitability. In the most extreme cases, the bankruptcy of some financial institutions can have an impact on the entire financial system, even on industry. Once that happens, government intervention seems inevitable, with the attendant net increase in public debt.

E. The Japanese Experience

Over the past 75 years, the most typical and perhaps most extreme real estate bubble phenomenon occurred in Japan. During the second half of the 1980s, the especially accommodating direction of Japanese monetary policy fostered the formation of bubbles on real property markets and deterioration of the banking system.(3) At the height of speculative activity

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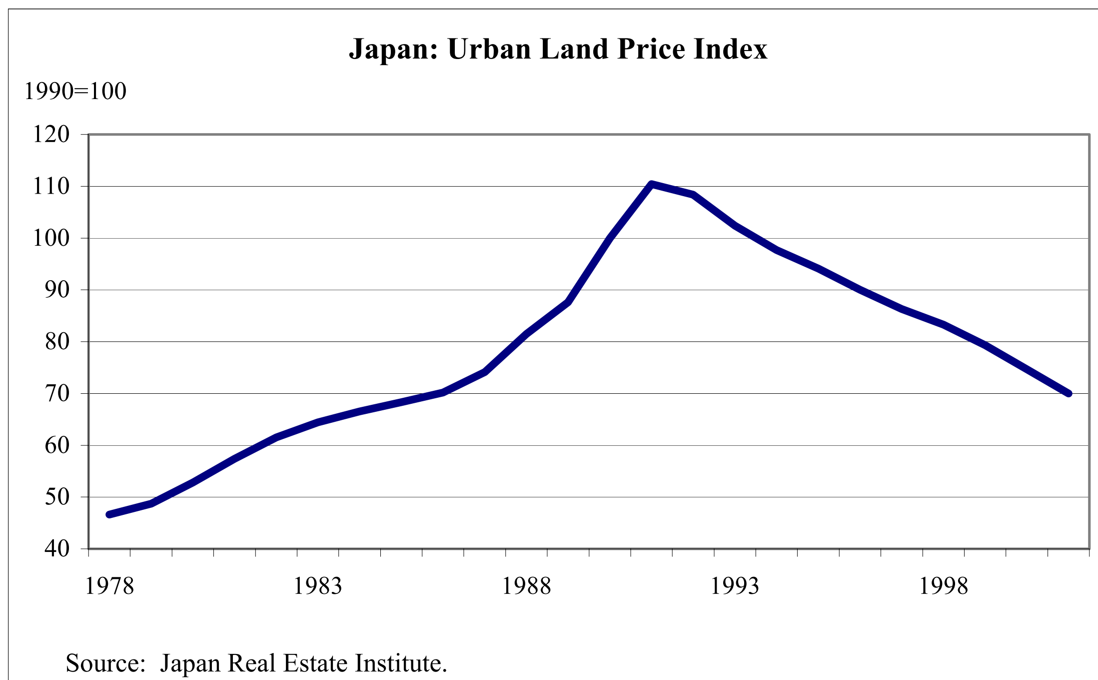
(3) Stéphanie Guichard, "La politique monétaire et la crise japonaise" ["Monetary Policy and the Japanese Crisis" – trans.], Centre d'études prospectives et d'informations internationales, No. 1998-06.

on the real estate market, the theoretical value of a piece of land in a business district in downtown Tokyo was almost equal to the theoretical value of the whole of Canada! After years of relatively unbridled credit policies on the part of the Japanese banks and a monetary policy that responded largely to external objectives rather than the internal economic situation, between 1989 and 1991 the Bank of Japan tightened credit conditions and triggered the bursting of the financial and real estate bubble.

Since that time, the Japanese economy has been stagnating, with the attendant anaemic growth and a number of recessions. The Japanese situation seems insoluble, characterized as it is by strong deflationist trends, a banking industry shaken by bankruptcies and bad loans, rising unemployment, and continuation of the stock market correction. No other industrialized country has been in a crisis like this since the 1930s.



From its December 1989 high to today, the Nikkei 225, the Tokyo Stock Exchange index, has fallen from 38,915 to 9,185 (-76 %). In the real estate sector, the value of urban land fell 36.6% between 1991 and 2001, according to data from the Japan Real Estate Institute. The drop in asset value naturally had a strong negative impact on household consumption and to some extent on the Japanese economic model.

Probably the most interesting feature of the Japanese post-bubble situation is the limited effectiveness of traditional macroeconomic instruments[4] in restarting the economy. A series of recovery plans put forward by the Japanese government have resulted in a public debt level that is 143% of GDP (June 2002).[5] The monetary policy seems every bit as powerless. The Bank of Japan's discount rate has remained below 1% since 1995 with no significant increase in demand by households and businesses because of the downward spiral and restrictions imposed on the banks by the restructuring of the Japanese financial sector. This is what economists call the "liquidity trap."[6]

RECENT TRENDS IN THE REAL ESTATE MARKET

A. Transfer of Savings From Stock Markets to Real Estate Markets

In Canada and elsewhere in the world, the collapse of stock markets has given new life to real estate investment. Some people are even saying that, in some respects, real estate has replaced gold as a hedge against inflation. Because the value of mutual funds has evaporated, many households are afraid their pension funds will be unable to provide sufficient retirement income. To rebuild their assets, households are investing more money in real estate, buying larger homes, cottages, or rental property. In North America and Europe, this rush to real estate is facilitated by mortgage interest rates that remain at their lowest level in the past 30 or 40 years.

Everyone is catching real estate fever. Investors see real estate as a low-risk investment vehicle that produces above-market return. Consciously or unconsciously, borrowers see debt for purchase of real estate as profitable in the long term, confident of an improved capacity to pay off the debt because of increased property value and inflation.

Considering the uncertainty surrounding the vitality of the world economy (except for real estate), most central banks continue to maintain relatively expansionary monetary

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(4) Jérôme Sgard, "La longue crise de l'économie japonaise" ["The Long Crisis of the Japanese Economy" – trans.], Centre d'études prospectives et d'informations internationales, N° 84, 4th quarter 2000.

(5) Ministry of Finance of Japan, "Understanding Japanese budget 2002," accessible on-line at: http://www.mof.go.jp/english/budget/brief/2002/2002-01.htm.

(6) Michael Hutchison, "Japan's Recession: Is the Liquidity Trap Back?," Federal Reserve Bank of San Francisco, 2000-19, 16 June 2000.

policies to trigger economic recovery. In the United States, monetary policy remains extremely expansionary, to preserve the financial health of households carrying a heavy debt load and avoid deliberately increasing the proportion of disposable income that households spend on servicing debt. In short, monetary policy seeks to safeguard market solvency. The trouble with injecting all this liquidity into the market is that growth of the money supply could eventually increase inflation.

B. Recent Dynamics of Real Estate Markets in Canada and the United States

In 2001, the remarkable performance of the real estate market probably prevented Canada from experiencing a recession, and the United States from experiencing a longer one.

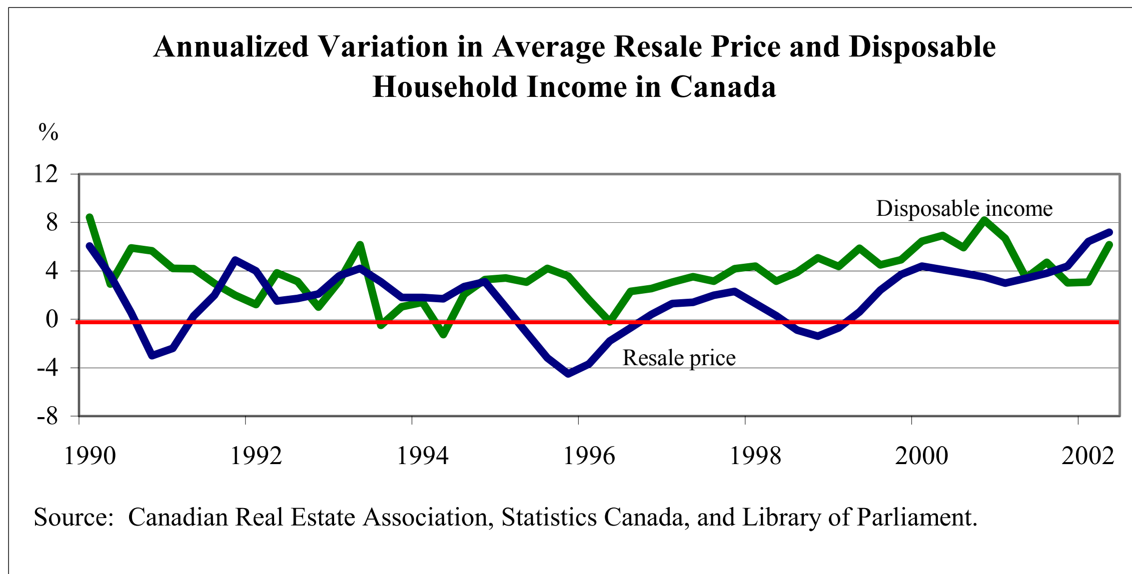
1. Canada: Strength of Fundamental Economic Factors

The real estate market and related activity are one of the spearheads of Canadian economic growth. Construction starts, resales, and prices have been rising strongly for the past few years, a trend that accelerated in 2002.

The rapid increase in real estate prices in Canada is based essentially on a positive evolution of the basic economic factors underlying the demand for housing. In Canada, strong demand and prices are based specifically on economic growth that generates jobs and increases disposable income, favourable credit conditions, and low vacancy rates.

Nonetheless, at the local level, real estate prices are not completely exempt from speculation. Some promoters, at a time when industry is facing a shortage of qualified labour, may seek to make the most of the situation and increase profit margins. The general rise in real estate prices may also be affected by higher new house construction costs, the Ottawa-Gatineau region being a case in point. On the resale market, the bidding wars triggered by the shortage of homes for sale can inflate prices way beyond the long-term price trends determined by demographic growth and increase in real household income. This situation, however, has arisen in only a minority of local markets.

Overall, the real estate price trend parallels that of disposable household income, thus minimizing the risk of a nationwide real estate bubble.



Source: Canadian Real Estate Association, Statistics Canada, and Library of Parliament.

2. United States: Contradictory Signals From the Real Estate Market

Since 1995, the United States has experienced a real estate boom characterized by strong activity in both construction starts and resale of existing homes, as well as a rapid rise in the price of rental units. As of 30 June 2002, the average resale price of houses in the United States had risen 38.7% over the past five years.(7) In real terms, this represents a 27% increase since 1997, the strongest five-year increase since 1945.

The price increase was three times greater than increases in the rental market. House and rental unit prices should usually change in tandem, reflecting increased housing demand and higher income. However, one must remember that, in the first quarter of 2002, the rental unit vacancy rate in the United States was a very high 9.1%. The gap between the rental market and the ownership market in this period of high housing demand suggests a speculative element in the American property market.(8)

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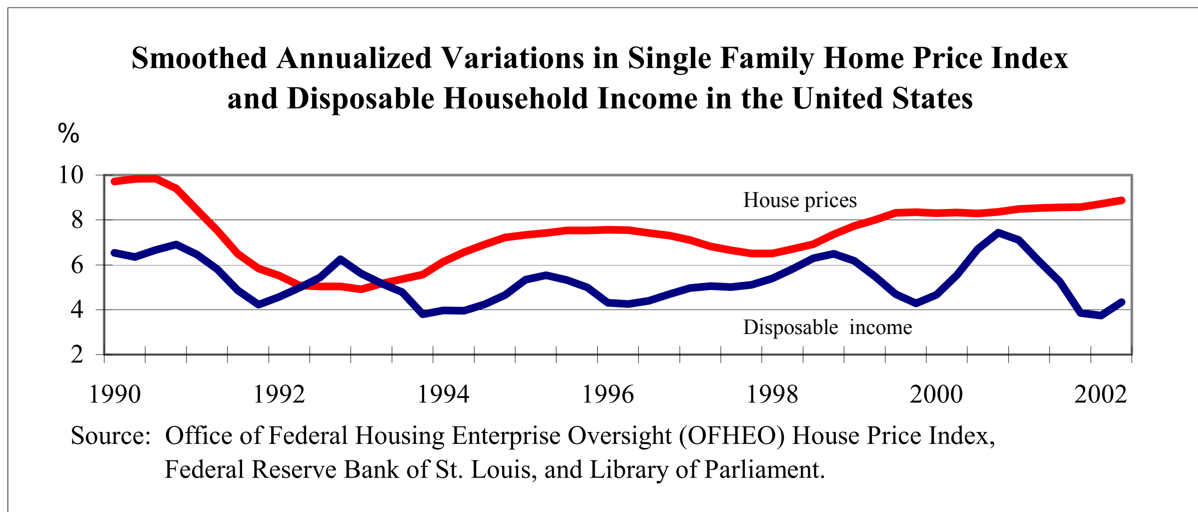
(7) Data are based on the Housing Price Index of the Office of Federal Housing Enterprise Oversight (OFHEO). The OFHEO is an American regulatory body that supervises the activities of the Federal Home Loan Mortgage Corporation (Freddie Mac) and the Federal National Mortgage Association (Fannie Mae). Freddie Mac and Fannie Mae are the two largest American financial institutions operating in the mortgage market. The two institutions buy mortgage loans from American lenders, partly to build mortgage-backed securities for resale to investors. These transactions create a secondary mortgage market that plays an important role in overall American mortgage market supply and liquidity. The strong supply/liquidity combination gives American households access to mortgage loans at reduced interest rates.

(8) Stephen S. Roach, "The Costs of Bursting Bubbles," *The New York Times*, 22 September 2002.

As previously mentioned, the price/income ratio is fundamental to formation of a real estate bubble. As of 30 June 2002, the disposable income of Americans had risen 32.9%[9] from 1997, a figure slightly smaller than the average resale prices. The small difference between the increase in house prices and disposable income is the key point made by observers of the American economy who deny the existence of a real estate bubble.



Smoothed Annualized Variations in Single Family Home Price Index and Disposable Household Income in the United States

Source: Office of Federal Housing Enterprise Oversight (OFHEO) House Price Index, Federal Reserve Bank of St. Louis, and Library of Parliament.

But this argument does not convince everyone. American household debt is a subject of concern for American economists, who fear a possible impact on consumption if interest rates go up. For the past year, mortgage debt service as a function of disposable income has remained above the 14% level, in spite of weak mortgage rates. The last time that the ratio was above the 14% mark (in 1986-1987), the 30-year mortgage rate oscillated around 10% as opposed to today’s 7% figure.

The situation demonstrates that the growth in American real estate prices and consumption in general rests in part on household debt levels. Due to the current historic trough in mortgage rates, and unlike the 1986-1987 situation, households cannot count on a significant softening of credit conditions to reduce the debt burden.

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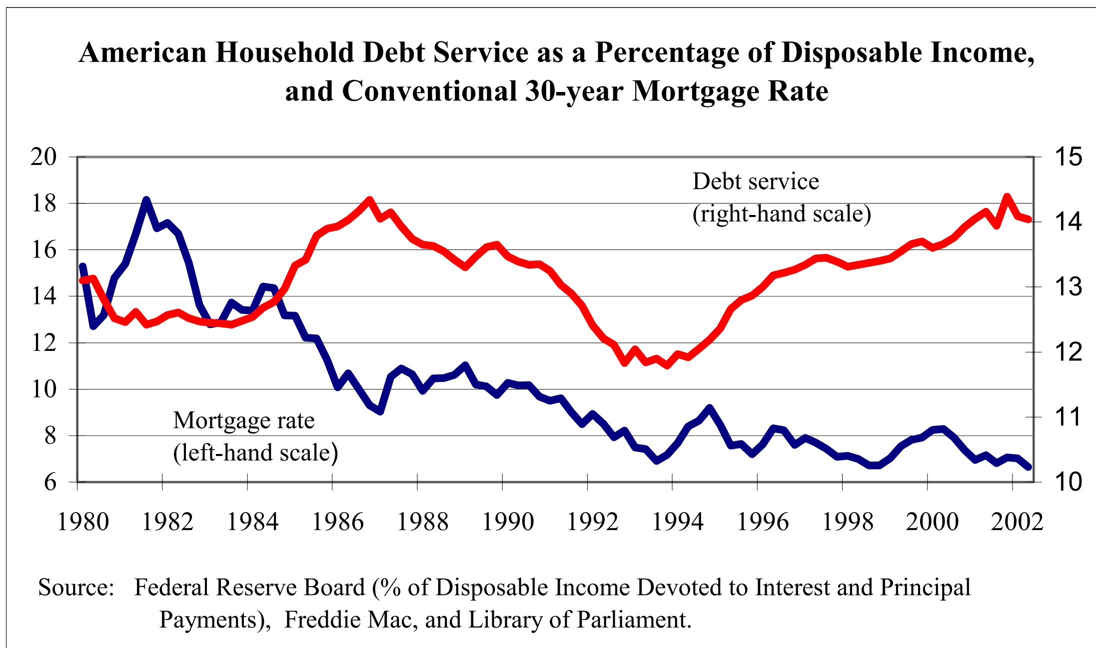
(9) United States National Accounts data.



American Household Debt Service as a Percentage of Disposable Income, and Conventional 30-year Mortgage Rate

Source: Federal Reserve Board (% of Disposable Income Devoted to Interest and Principal Payments), Freddie Mac, and Library of Parliament.

At the same time, in spite of the growth in the real estate market and favourable credit conditions, the percentage of American homeowners who have defaulted on their mortgages reached a 30-year peak in the second quarter of 2002 (according to the Mortgage Bankers Association of America). The figure for 30-day payment delinquency was 4.77%, compared to 4.64% one year earlier.

In spite of the negative impact of rising unemployment on disposable income, analysts, including the chief economist of the Mortgage Bankers Association of America,[(10)] are perplexed as to the exact causes of the rise in mortgage delinquency and repossession, as these are usually on the downturn when the housing market is in a period of growth. Market vitality should enable owners who have financial problems to sell their property before becoming unable to honour their financial commitments. The delinquency spike indicates that a growing number of buyers are unable to meet their mortgage payments at a time when high prices are driving away increasing numbers of potential buyers.

In addition, abusive use of mortgage loans on equity, relaxation of risk management practices by credit institutions, and the growing popularity of no-down-payment mortgage loan programs may have contributed to the rising delinquency rate.

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(10) Diane Wedner, "Mortgage delinquency rate reaches a 30-year high," *Los Angeles Times*, 10 September 2002.

MECHANICS OF THE AMERICAN MORTGAGE MARKET: A FORMIDABLE TOOL FOR CONSUMPTION AND INDEBTEDNESS

To support the economy and overcome the emotional shock of the attacks of 11 September 2001, Americans have been encouraged by their country's political and economic leaders to remain confident, and to consume. The American government and the Federal Reserve have become directly involved by introducing lower taxes and lower interest rates.

In keeping with their usual patterns, American property owners, thanks to rising real estate values and falling rates, have flocked to refinance their properties and use their equity for further spending on consumer items such as vehicles and furniture. This flight of equity from the real estate market, although good for the North American economy, has had a negative impact on building personal retirement funds at a time when American households have lost thousands of billions on the stock market.(11)

The American institutional framework and tax system undoubtedly lend themselves to this type of operation.

A. Mortgage Loan Interest Deductibility

In the United States, one of the best reasons to own a house is the tax break associated with deducting interest on a mortgage loan from income. Deduction of mortgage interest is one of the last tax shelters available to middle-class Americans.(12) In spite of numerous changes to tax legislation over the past few years, aimed at abolishing or reducing tax deductions for specific property or activities, mortgage interest remains deductible.

Interest deductibility on mortgage loans allows Americans to considerably reduce the cost of owning property. The greater the amount borrowed, the greater the tax break, and the tax savings are also proportional to the individual's tax rate. Mortgage loan-related costs paid to the lender, and financial penalties related to prepayment and property taxes, are also deductible.

In order to deduct interest on a debt, an individual must be legally liable for the debt. In the United States, the maximum amount of mortgage debt is $1 million. Mortgage interest on a loan for purchase of a secondary residence can also be deducted from a taxpayer's income.

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(11) Roach (2002).

(12) Latour Realty web site: http://www.daniellatour.com, 15 October 2002.

B. Home Equity Loans

The American tax system also allows deduction of mortgage interest on home equity loans, as distinguished from interest paid on credit card loans, personal loans, etc. Interest on home equity loans is usually slightly above the discount rate as the loans are secured by the value of the borrower's house. In a period of rising real estate values, home equity loans are extremely popular in American households, because they are subject to no – or almost no – restriction as to use. An exception to the rule is that the interest is not deductible if the amount of the home equity loan is used to purchase securities or financial products that yield tax-exempt income. They may, however, be used to consolidate debt or to acquire or do almost anything (e.g., renovation, current consumption, school fees, medical expenses, travel).

American households are trying to do everything they can to tie all their debts to real property with a home equity loan, so that the interest on all their liabilities will be deductible. Interest on this type of loan is deductible from income as long as the maximum amount of the loan does not exceed $100,000.

C. Refinancing Associated With Capital Outflow

The current low mortgage rates in the United States encourage many homeowners to refinance their mortgages to reduce monthly payments and, in some cases, cash in a part of accumulated equity.

In addition to the initial debt, the American tax system sets a $100,000 limit on a new debt, contracted by refinancing a debt, that is eligible for a mortgage interest tax deduction.

In the first quarter of 2002, the mean ratio of equity to market value of American homes was 55%, far below historical averages. Throughout the 1960s, 1970s, and 1980s, home equity was consistently above 67% of value. Because the American population is on average considerably older than in the preceding decades, the drop in the ratio is significant.

D. Is a Real Estate Bubble Forming?

In a speech on economic and monetary policy delivered to the American Congress on 17 July 2002, Alan Greenspan, President of the American Federal Reserve, said he saw no evidence of a national real estate bubble in the United States. Similar comments had been made by a number of industry spokespersons claiming that, if past cycles of rapid price increases in the real estate market were caused by speculative household behaviour, the current phase is largely due to tight sector supply. Were these statements made simply to reassure households and markets and avoid panic? Is there conflict of interest?

Formation of local real estate bubbles is still possible, as mentioned by the Office of Federal Housing Enterprise Oversight in its second-quarter report, published in September 2002. Furthermore, this American government agency confirms that data on building permits and housing starts do not preclude the possibility that the American real estate market may be seeing speculative activity, thus covertly contradicting the views expressed by the American housing industry without overtly admitting the existence of a significant real estate bubble.

In the United States, the alarm has been raised by some distinguished economists.(13) To those who claim that the United States is not like pre-bubble Japan, they reply that there are certainly similarities.

1. The real estate market is strongly stimulated by the weakness in interest rates, which remain low in spite of the rapid rise in real estate prices. In a deflation situation, triggered by a drop in asset value, monetary policy flexibility would be limited.

2. The corporate governance crisis following the Enron and WorldCom scandals is all too similar to some business practices observed in the past in Japan and Asia in general.

3. The current American budget deficit restricts the ability of fiscal policy to support an eventual softening of monetary policy.

They believe, moreover, that the available data indicate that American households purchase real property largely for investment rather than housing purposes.

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(13) See, for example, Dean Baker, "The run-up in home prices: Is it real or is it another bubble?," document published by the Center for Economic and Policy Research, Washington, D.C., 5 August 2002; Paul Krugman, " Mind the gap," *The New York Times*, 16 August 2002; and Roach (2002).

It is impossible to forecast the future accurately, but some signals emerging from the current situation, and the possibility of a real estate bubble, point to a possible deflation of the economy if all the associated risks come to a head.

CONCLUSION

In Canada, recent data do not conclusively indicate a real estate bubble, essentially because nationwide real estate prices have been changing at approximately the same rate as household income. However, in June 2002, RBC Financial Group emphasized that:

> Some overheating local segments and early signs of speculative conditions are not enough to provide clear evidence of a bubble that would cause problems for inflation and Canadian monetary policy but are advanced enough to warrant continual monitoring.[(14)]

For our American neighbours, however, the situation is not as straightforward. Consumption accounts for two thirds of the American economy, and the financial health of American households is a determining factor in the vitality of the Canadian economy. Impoverishment of American households, following the bursting of a large-scale real estate bubble, would have serious consequences on our exports and our economy.

Considering our economic ties, the possible existence of a real estate bubble in the United States is significant for Canada. Close attention should be paid to the situation to determine, if possible, ways of cushioning a potential shock.

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(14) Derek Holt, "Mixed evidence of a North American real estate bubble," RBC Financial Group, June 2002, p. 5.