Tiff Macklem: Regearing our economic growth

Text of the W Edmund Clark Distinguished Lecture by Mr Tiff Macklem, Senior Deputy Governor of the Bank of Canada, at Queen's University, Kingston, Ontario, 10 January 2013.

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Introduction

It is a pleasure to be here at Queen's. I discovered my passion for economics and its potential to inform public policy as a Queen's student. I also developed a passion for a smart and attractive Queen's Commerce student when I was here and we have been married now for more than 25 years. Our oldest son is currently a fourth-year Queen's student – soon to be a graduate, I trust. And before all of us, my father went to Queen's. So Queen's has long played a big role in our family and I always like coming back.

It is a particular honour to be here to deliver the W. Edmund Clark Distinguished Lecture. Ed Clark had an illustrious career with Canada's federal public service before becoming a leader in the financial services industry. His success in both the public and private sectors, and particularly his contributions to building a stronger Canadian economy, is an inspiration to us all. So it is fitting that I will talk today about building on our economic strengths.

As you know well, how you meet academic challenges depends a great deal on your preparation, determination and confidence. The same can be said of economic challenges.

In my remarks today, I will review how these very qualities helped Canada outpace other major advanced economies through the recent global recession and recovery. I will also suggest that to maintain our leading position we need to build on our strengths, with determination and confidence, and rotate our growth so it is less reliant on credit-financed household spending and more geared to exports, investment and innovation.

I will do this in two parts. I will begin with an 8-minute version – the short story, if you will. Then I will use the luxury of time afforded by this lecture to develop the short story in more detail and provide supporting facts and analysis along the way.

The short story

When you read the international economic and financial news, it is easy to feel queasy. The U.S. economy is experiencing its weakest recovery since the Great Depression and must now confront its fiscal realities. The euro area has fallen back into recession and must refound itself. The Japanese economy is floundering.

By comparison, Canada has done well. We had the shortest recession and the strongest recovery among major advanced economies. Indeed, Canada is unique among this group to have regained its pre-recession level of *both* real GDP and employment (***Charts 1*** and ***2***). Canada is by itself in an expansion.

Why have we done so well?

It would be a conceit to think it is because we're smarter, better educated, more inventive or harder working. The truth is more humbling.

We had our crises earlier.

In the 1970s, we lost our monetary anchor, and suffered the harmful consequences of high and variable inflation.

In the mid–1980s, two Canadian banks failed and two more were saved only by merging with larger institutions.

In the mid–1990s, contagion from the Mexican peso crisis caused foreign investors to wake up to Canada's precarious fiscal situation, and we suffered our own sovereign debt crisis.

Where we can take credit is that we learned from our mistakes. In the aftermath of each of these crises, we put in place sound policy frameworks.

In 1991, Canada was the second country in the world to adopt an inflation target. The subsequent change in the behaviour of inflation was unequivocal. Since the adoption of the 2 per cent target, inflation has averaged very close to 2 per cent, and its variability, as measured by its standard deviation, has been cut by two-thirds (***Chart 3***).

Following the bank failures of the 1980s, the government created a new prudential agency, the Office of the Superintendent of Financial Institutions (OSFI), with a clear mandate and the authority to take necessary corrective measures expeditiously. Financial regulatory standards were raised above international minimums, and supervision and oversight were strengthened.

The fiscal transformation that followed our sovereign debt crisis was no less dramatic. After allowing government debt relative to GDP to rise almost without interruption from 1975 to 1995, successive governments ran 10 years of surpluses, cutting the government debt-to-GDP ratio from almost 70 per cent in 1995 to 22 per cent in 2008 (***Chart 4***). As a result, Canada's net debt relative to GDP went from being the second-highest ratio among the G–7 countries in 1995 – second only to Italy – to the lowest today (***Chart 5***).

Just as important, we have stuck with the discipline of these foundational policy frameworks while continuing to strengthen them, even as our crises have faded into history. These policy frameworks have served Canada well into the new millennium, underpinning almost two decades of solid and stable growth. But their full value was revealed through the recent global financial crisis.

In Canada, no banks failed or had to be rescued, and our financial system continued to provide credit to households and businesses. So when the Bank of Canada, guided by its inflation target, lowered the policy interest rate to near zero and took the unconventional step of making a conditional commitment to hold the rate there for more than a year, the stimulative effects of monetary policy worked powerfully.[1] This monetary response was buttressed by a large fiscal stimulus package, including infrastructure spending, tax cuts and measures to enhance employment insurance, skills development and training. The combination of a financial sector that continued to work and extraordinary monetary and fiscal stimulus resulted in the smallest decline and by far the most rapid recovery in final domestic demand among major advanced economies (***Chart 6***).

Thorough preparation combined with determined action and confident execution worked.

With the recession behind us, the extraordinary fiscal stimulus has now been unwound. The Bank of Canada has moved off its exceptional policy, dropping its conditional commitment and raising the policy rate to 1 per cent. But with foreign headwinds in the form of a weak global recovery and elevated uncertainty, and a persistently strong Canadian dollar, the policy rate has remained at 1 per cent even as global financial conditions have improved and domestic lending rates have eased to near historic lows. This has provided ongoing support to household spending.

As successful as it has been, this growth model is now reaching its limits.

Today, the balance sheets of households are stretched. After 11 consecutive years with household outlays exceeding disposable income, household debt burdens have increased

[1] The Bank of Canada, together with the federal government, also provided exceptional liquidity to the financial system so that our sound banks could replace the short-term liquidity and wholesale funding that had dried up in the immediate aftermath of the failure of Lehman Brothers.

substantially. Household debt as a percentage of disposable income has risen by almost 60 percentage points to 165 per cent today,[2] and Canadians are now more indebted than the Americans or the British (***Chart 7***).[3] Housing activity in Canada is at a near record share of GDP, and there are indications of overbuilding and overvaluation in some segments of the housing market. Reflecting the strength in spending relative to income, Canada's current account has been in deficit for the past four years.

These trends are not sustainable.

The good news is that there are now signs a gradual correction of these imbalances may be under way. It is too early to tell whether it will continue, and there are risks on both sides. The correction could turn out to be short lived and the unsustainable trends could continue for a time. Or it could accelerate, risking too much adjustment too quickly. A gradual correction is desirable to reduce vulnerability and avoid a larger, more abrupt and disruptive correction in the future.

But as desirable as a gradual correction is, something needs to take the place of increasingly leveraged household spending or economic growth in Canada will slow. The component of demand that has underperformed the most is exports (***Chart 8***). Indeed, exports are the only component of GDP that remain below their pre-recession peak. They have also underperformed when compared with most other advanced economies (***Chart 9***). To pick up the slack in exports will require investment, which has been the next weakest component of GDP.

What to do?

First, learn from the mistakes of others to ensure we are prepared for the risks ahead. Second, confront our weaknesses with clarity and determination. And third, have the confidence to build on our strengths.

We are fortunate to have many:

- a well-educated and increasingly efficient labour force;
- privileged global access to capital;
- abundant commodities;
- a resilient financial system; and
- sound fiscal and monetary policy.

If we build on these strengths, there is no reason why we can't regear our growth and retain our pole position among advanced countries.

That's the short version. I will now use the rest of this lecture to make this somewhat abstract prescription more concrete.

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[2] As measured by Statistics Canada, see Chart 10.

[3] In Chart 7, for the purposes of international comparability, the data for Canada include both households and non-profit institutions serving households and the definition of disposable income is adjusted.

Two challenges

Stretched consumers

Allow me to review the financial situation of consumers in a bit more depth. Household indebtedness is elevated and a range of indicators suggest that some segments of the housing market exhibit stretched valuations and overbuilding.[4]

In the last 10 years, the pace of household debt accumulation has been unusually rapid. Household debt relative to disposable income increased about three times faster in the last 10 years than in the previous decade (***Chart 10***). The bulk of this rise in debt – 66 per cent, or $636 billion – has been in the form of mortgage debt, putting Canadians in an uncomfortable neighbourhood – between Spain and the United States – in the ranking of household mortgage debt across countries (***Chart 11***).

Rising mortgage debt has fuelled housing activity, including resales, renovation and new home building. Housing activity has been elevated relative to historical norms for close to a decade now (***Chart 12***). After a sharp but brief decline when consumers froze in the darkest days of the financial crisis, housing activity rebounded quickly, rising to a near record level in 2012. The total number of housing units under construction is now well above its average relative to population (***Chart 13***). This is entirely accounted for by multiple-unit dwellings (which include condominium units). While this may to a degree reflect fundamental factors such as a shortage of land for single-family house development in some large metropolitan areas, there is also abundant anecdotal evidence that building has been spurred by investor demand, and is therefore more susceptible to changes in buyer sentiment.

The strength in housing activity has also been reflected in rising house prices. Over the past decade, the price of the average home has risen from 3.5 times disposable income to more than 5 times (***Chart 14***), and the house price-to-rent ratio has increased from 1.3 to 2.3 (***Chart 15***). Both of these measures are now well above their historical averages.

Restoring sustainable levels of borrowing and housing activity is a shared responsibility. First, households need to assess their ability to pay year after year, factoring in the reality that borrowing rates will eventually return to more normal levels. Many households are prudently responding by locking into fixed mortgage rates. The share of new fixed-rate mortgages increased from 50 per cent in 2011 to almost 90 per cent last year – a reflection of both attractively priced fixed rates and the Bank of Canada's tightening bias.

Second, banks and other lenders need to carefully consider risks when they extend loans to households.

Third, the federal government has on four occasions between 2008 and 2012 taken prudent and timely measures to support the long-term stability of the housing market by tightening the minimum standards for government-backed insured mortgages. These measures have been complemented by OSFI's new tougher underwriting standards for home-equity loans, enhanced supervisory scrutiny, and requirement that banks meet the more demanding Basel III capital standards as of January 2013, well ahead of the internationally-agreed maximum phase-in deadline of 2019.

The cumulative effect of these measures, together with increased consumer awareness, is having an impact. In the past six months, the growth of household credit has continued to moderate, with total household credit growth slowing to slightly below 4 per cent in recent months (***Chart 16***). If this is sustained, the ratio of household debt to disposable income can be expected to stabilize later this year.

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[4] For a more detailed discussion of the Bank's current view of household finances and the housing market, see the Bank of Canada *Financial System Review*, (December 2012):19–32.

Housing activity has also moderated recently. Sales of existing houses have softened, falling below their 10-year average in the third quarter. More recently, housing starts have also fallen from very high levels, declining from 225,000 units through much of 2012 to about 200,000 units in November and December. Even with this decline, housing construction remains above demographic demand, which is estimated to be about 185,000 units. Further slowing is expected to bring a convergence of housing starts and demographic demand this year.

The growth in house prices has also slowed, although prices are still close to 18 per cent higher than the previous peak in August 2008 (***Chart 17***).

These are encouraging signs of a stabilization of household imbalances and a more sustainable housing market. But after a decade of buildup, it is too early to be sure.

Lacklustre exports

Even though desirable, eliminating the household sector's net financial deficit would leave a noticeable gap in the economy. The reduction of about $50 billion in annual household spending could be compensated by an additional 4 percentage points of annual export growth. Today, relative to the average recovery path for exports, we are losing $123 billion annually (***Chart 18***). In other words, in order to replace $50 billion in credit-financed household spending, exports need to close just two-fifths of the gap between the current recovery in exports and the average recovery. This should be doable.

The underperformance of our exports is due in part to weakness in foreign demand. With the United States – our major trading partner – experiencing its worst recession and weakest recovery since the Great Depression, our exports fell sharply in 2008 and have recovered only slowly.

But a longer view reveals that the global recession only exacerbated an already existing trend.

In the last decade, Canada's share of the world export market has slipped from about 4.5 per cent to about 2.5 per cent and our share of the export market for manufactured goods has been cut in half. Even more revealing, our export performance has been the second worst in the G–20 (***Chart 19***).

Why have we done so badly?

There are two reinforcing factors – structure and competitiveness.

Two-thirds of this underperformance reflects who we trade with.[5] Almost 85 per cent of our exports go to slow growing advanced economies – 74 per cent to the United States alone – and only 9 per cent to fast growing emerging-market economies (EMEs) (***Chart 20***). Compared with our peers, Canada's exposure to emerging markets is low when measured as a share of exports (***Chart 21***).

The other third reflects declining competitiveness. This is manifest in our most important trading relationship, where we have lost considerable market share. From 2000 to 2011, China increased its share of U.S. imports from 8 to 18 per cent, surpassing Canada as the largest exporter to the United States (***Chart 22***). Over the same period, Canada's share of U.S. imports fell from almost 20 per cent to less than 15 per cent. Moreover, while the large increase in China's share is affecting other countries, a number of countries, notably Mexico and Germany, have fared much better than Canada.

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[5] M. Carney, "Exporting in a Post-Crisis World," (speech delivered to the Greater Kitchener Waterloo Chamber of Commerce, Waterloo, Ontario, 2 April 2012). Also see D. de Munnik, J. Jacob, and W. Sze, "The Evolution of Canada's Global Export Market Share," Working Paper No. 2012–31, Bank of Canada, October 2012.

A comparison of the evolution of unit labour costs in Canada and the United States is telling. Between 2000 and 2011, the labour cost of producing a unit of output in Canada compared with the United States, adjusted for the exchange rate, increased 75 per cent (***Chart 23***). The majority of this loss of competitiveness reflects the appreciation of the Canadian dollar, but weak productivity growth in Canada relative to the United States played a significant role. Business sector labour productivity in Canada has grown at an average annual rate of just 0.8 per cent since the start of 2000, compared with 2.3 per cent in the United States. This accounts for about one-third of our lost competitiveness.

What should Canadian businesses do?

First, don't count on a weaker Canadian dollar. Hoping for a weaker Canadian dollar is not a business plan. A sustainable export strategy cannot rely on expectations of a more favourable exchange rate, since Canada is likely to remain an attractive investment destination.

Second, businesses should intensify their efforts to develop new markets for their products in fast-growing EMEs. This is being facilitated by a federal trade strategy that is increasingly EME focused. The Canadian government is currently negotiating a new trade agreement with India, has struck terms for a new investment agreement with China (the Canada-China Foreign Investment Promotion and Protection Agreement) and is participating in the multilateral negotiations of the Trans-Pacific Partnership. These are important initiatives – not just for our trade with EMEs, which now account for one-half of all global import growth – but also because they are essential to secure our positions in global supply chains.

Third, improve productivity. To do that, we need to build on our strengths.

Building on our strengths

While our current growth model is reaching its limits, Canada has far from exhausted its opportunities. Quite the reverse – our strengths are many. Regearing requires building on them with determination, and harnessing their complementarity with confidence. I will start with our factors of production (labour, capital and commodities), before moving to critical enablers (our financial system and policy frameworks).

A well-educated and flexible labour force

The most important factor of production and our biggest strength is our labour force. Canadian workers are well educated, and our labour market is increasingly flexible.

High-school completion in Canada is near universal, and Canadian students perform well relative to their peers, based on results of international assessments. Among the members of the Organisation for Economic Co-operation and Development (OECD), we have the highest level of tertiary education (including universities, colleges and polytechnics). Canada ranks well in the sciences, technology, engineering and maths, fields where the proportion of tertiary graduates exceeds the OECD average. We have strong research capacity centred on our universities, as measured by per capita academic of publications, which are well above the OECD average. And our spending on research and development (R&D) by institutions of higher education in proportion to GDP is the fifth highest in the OECD.[6]

Over the past several decades, the efficiency of our labour market in matching workers and jobs has also improved dramatically. The Beveridge curve measures how well labour markets match workers looking for jobs with job vacancies (***Chart 24***). The closer the Beveridge curve is to its origin (zero vacancies and unemployment), the more efficient the labour market. As shown, the curve in the 1980s (blue line) has a higher level of

[6] *Education at a Glance 2012*, OECD Indicators.

unemployment for a given level of vacancies than the curve in the 1990s and early 2000s (red line).[7]

Part of that improvement in efficiency is due to the increasing mobility of Canadian workers. Interprovincial migration has long been an important adjustment mechanism for the Canadian economy. Recent Bank research suggests that long travel distances across Canada may not be as great a barrier to labour mobility as they once were. Over the past decade and a half, people have moved from regions with excess labour to those with the tightest labour markets, leading to the convergence of unemployment, participation and employment rates. By 2011, the gap, or disparity in employment rates across the 10 provinces, was at its lowest level and was not very different from the dispersion of employment rates across the United States (***Chart 25***).[8]

In a geographically large, knowledge-based economy, these are important advantages. To regear, we need to build on them.

While we are leading the world in tertiary educational attainment, we lag in the attainment of more advanced degrees and business degrees. Among OECD countries, we have the highest attainment of college degrees. For university degrees, we are only slightly above average, and for master's and PhD degrees, we are in the bottom third.[9] In the field of business education, our proportion of graduates is slightly below the OECD average and 25 per cent below the United States.

These trends in educational attainment are significant for at least two reasons.

First, they show up in our work force. Compared with U.S. firms, Canadian firms lag in the employment of workers with advanced degrees and in the educational attainment of their managers. Canadian firms hire fewer employees with PhDs and other postgraduate degrees, especially in the sciences. Only one-third of managers in Canada have a university degree, compared with almost half of American managers.[10]

Second, a significant body of research suggests that education improves the quality of management, and the quality of management influences investment in new technologies, in the introduction of new processes, and in the development of new markets. Highly educated individuals are much more likely to be owners of high-growth innovative firms.

This all points to a need for more Canadian students to invest further in their education and for Canadian firms to put more emphasis on skills.

There is also scope to further improve the matching of workers and jobs. There is some evidence of a mismatch between the supply of graduates in certain fields and the needs of employers. In particular, Canada has a disproportionately large share of university graduates in the bottom-earning quartile relative to other OECD countries. In addition, Canada's employment rate for university graduates is below the OECD average. This underscores the importance of the dialogue between industry, labour and educational institutions to ensure that workers have the skills employers are seeking. It also points to the need to continue to eliminate differences in occupational licensing and other barriers to inter-provincial migration.

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[7] Data on vacancies end in 2003.

[8] D. Amirault, D. de Munnik and S. Miller, "What Drags and Drives Mobility: Explaining Canada's Aggregate Migration Patterns," Working Paper No. 2012–28, Bank of Canada, 2012.

[9] *OECD Economic Surveys*, Canada June 2012.

[10] Institute for Competitiveness and Prosperity, "Management Matters," Working Paper No. 12, March 2009; N. Bloom, "Management and Productivity in Canada: What Does the Evidence Say?" Industry Canada, Working Paper No. 2011–05.

Privileged global access to capital

Access to capital has rarely, if ever, been better in Canada, both on an absolute scale and relative to our competitors.

Corporate bond yields in Canada are at record lows (***Chart 26***). Our surveys of banks and businesses suggest that business-lending conditions have continued to ease almost without interruption since late 2009 (***Chart 27***).

Our economic advantages have made Canada an attractive investment destination and a rare safe haven in a risky world. This status is reflected in the behaviour of Canadian 10-year yields, which tend to decline at the same time as risky assets such as global equity prices. The correlation suggests that money flows into Canadian bonds in response to increases in perceived risk. Indeed, by this measure, Canada is viewed as among the safest of havens (***Chart 28***).

This privileged global access to capital is a critical advantage. We need to use it wisely to invest in productive capital and research and development (R&D) rather than in houses.

There is a large empirical literature that finds two of the best predictors of productivity growth are investment in machinery and equipment (M&E), particularly information and communication technology (ICT), and investment in R&D. Canada is lagging in both.

Between 1987 and 2010, Canadian investment per worker in M&E and ICT averaged 74 per cent and 57 per cent, respectively, of that invested in the United States. By 2010, on average, Canadian workers had only about half as much M&E and ICT capital stock to work with as their U.S. counterparts.

While public support for R&D in Canada is strong, business investment in R&D is below the OECD average and half the rate in the United States.

Investment in Canada in recent years has been solid, but not spectacular. Despite record-low interest rates, historically low corporate leverage and a strong Canadian dollar, the recovery in investment remains below the average cycle (***Chart 29***). We need to invest more in M&E, and we need to get more out of these investments with greater spending on organizational capital and process improvement. To regear, we must do better than solid.

Abundant commodities

Abundant commodities have long played a critical role in our economic development but dramatic changes underway in the structure of the global economy have made commodities an even greater advantage.

While commodity prices have fallen 19 per cent since their peak in April of last year, they remain about 20 per cent above their longer-term averages in real terms (***Chart 30***). In fact, real prices for energy and metals have been well above their long-term averages for more than eight years and real food prices are now at their highest level in 36 years. While commodity prices will continue to be volatile, this trend strength can be expected to persist.

Underpinning this commodity super cycle is a sustained increase in demand from rapidly growing emerging markets, particularly China and India. Together, they account for most of the increase in global demand for commodities in the last five years. For example, increases in Chinese demand have played an important role in the rise of oil prices seen since 2002 (***Chart 31***). With convergence to Western levels of consumption still a long way off, the demand for commodities can be expected to remain robust and prices elevated for some time.

In Canada, the impact of rising commodity prices has been reinforced by strong growth in the supply of some commodities. Oil is now our most important commodity by value, with its share of total Canadian commodity production rising over the past 15 years from 18 per cent to 46 per cent (***Chart 32***).

Our challenge is to develop our commodities intelligently and sustainably and to ensure that the whole country benefits. Infrastructure investments in pipelines and refineries to get Western heavy oil, which is trading $40 below the world price, to Central Canada and to foreign markets would bring more of the benefits of the commodity boom to more of the country. Increased interprovincial trade in goods and services provides another channel to capture more of the value added from energy, mining and agriculture for all of Canada. This is already happening. For most provinces, trade inside Canada has continued to grow from 2007 to 2011, offsetting all or some of the weakness in international trade over the same period (***Chart 33***).

Resilient financial system

The financial system is a critical enabler, channelling savings to productive investments and helping firms and households to manage risks.

Our banks withstood the 2008 financial crisis and are considerably stronger today than they were then. They have substantially lengthened liquidity horizons. They have increased their common equity capital by 77 per cent, or $72 billion, since the end of 2007. And, as of 10 days ago, Canadian banks met the new Basel III capital requirements, well ahead of the maximum phase-in period that extends to 2019. Businesses can be confident that bank funding will remain available.

Core funding markets are also being strengthened so that market-based finance is a resilient source of diversification and innovation in funding markets, not instability. Last February, the Canadian Derivatives Clearing Corporation launched a new central counterparty service for repo transactions. Canada is on track to meet the G–20 commitments regarding the clearing of over-the-counter derivatives. In this regard, in October, Canadian authorities announced that market participants will be able to clear standardized over-the-counter derivatives using any central counterparty recognized by Canadian authorities, including global central counterparties.

Our priority is to be among the leaders in adopting new, stronger global standards and to encourage others to do the same to maintain an open and competitive global financial system.

Sound fiscal and monetary policy

Thanks to our sound fiscal policy, Canada is among a select and dwindling group of countries with a risk-free rate. This is underpinning our privileged access to global capital. Canada's competitive position is improving as other countries must increase taxes to address fiscal imperatives. And while returning to budget balance in Canada will require a determined effort, it pales in comparison to the scale and duration of the adjustment needed in the United States. There are very real benefits to Canada's record of sound fiscal management.

Finally, monetary policy. What can it do?

Canadians can remain confident that inflation will remain low, stable and predictable. After more than 20 years of low inflation, the consequences of high and variable inflation are fading in the collective memory of Canadians, making it easy to discount the value of this commitment. That would be a mistake.

Low and stable inflation has allowed consumers and businesses to manage their finances with greater certainty about the future purchasing power of their savings and income. Interest rates have also been lower and less variable in both nominal and real terms across a range of maturities. By working to stabilize inflation, monetary policy has helped to encourage more

stable economic growth, lower and less variable unemployment, and greater efficiency in financial markets.[11]

Maintaining low and stable inflation is the primary focus of monetary policy, but it is not the singular focus. Consistent with our mandate to "promote the economic and financial welfare of Canadians," our flexible inflation-targeting framework requires that we consider the consequences for volatility in output, employment and financial markets when determining the optimal path and horizon over which to return inflation to target. In practice, the variation in that optimal path has resulted in an inflation-target horizon as short as two quarters and as long as 11 quarters since the Bank began publishing its projections in 1998.[12]

This flexibility is enhanced by the credibility of Canada's monetary policy. Inflation expectations are well anchored at the 2 per cent target. But this flexibility is also an asset that must be used with care. Credibility is hard to earn and easy to lose.

While the crisis of 2008 re-affirmed the value of our flexible inflation-targeting framework, it was also a powerful reminder that price and financial stability are inextricably linked, and pursuing the first without due regard to the second risks achieving neither. The primary tools to deal with financial stability are micro- and macroprudential regulation and supervision. However, it may be appropriate in some circumstances for monetary policy to complement macroprudential policy and contribute to financial stability directly.

There can be tension between price and financial stability over the typical monetary policy time frame because the consequences of financial excesses may be felt over a longer horizon than other economic disturbances. In current circumstances, the Bank may want to set interest rates higher than would otherwise be warranted to bring inflation back to target within the typical six- to eight-quarter time frame. In particular, the Bank has indicated that the evolution of household imbalances may be a factor affecting the timing and degree of any withdrawal of monetary stimulus. If the Bank were to lean against such imbalances, we would clearly say we are doing so, and indicate how much longer we expect it would take for inflation to return to the 2 per cent target.

For now, signs indicate that the pace of household-debt accumulation is moderating, but, as I have stressed already, it is too early to tell if this will be sustained.

Conclusion

It is time to wrap up.

I will conclude with a brief comment on current economic developments. As I mentioned earlier, housing activity is beginning to decline broadly in line with our expectations. Canadian exports are expected to add to GDP growth, but continue to be restrained by weak foreign demand and ongoing competitiveness challenges. Economic activity in the third quarter of last year was weak owing in part to transitory disruptions in the energy sector. We continue to expect economic activity to pick up through 2013, but near-term momentum now appears to be slightly softer than previously anticipated. These and other developments will all be taken into consideration as we revise our economic projections, to be published on January 23 with the next interest rate decision.

The strength and durability of the pick-up in growth through 2013 and beyond will depend critically on how successful we are in regearing our growth to exports, investment and innovation. We are well prepared. We have a myriad of strengths. If we build on these with

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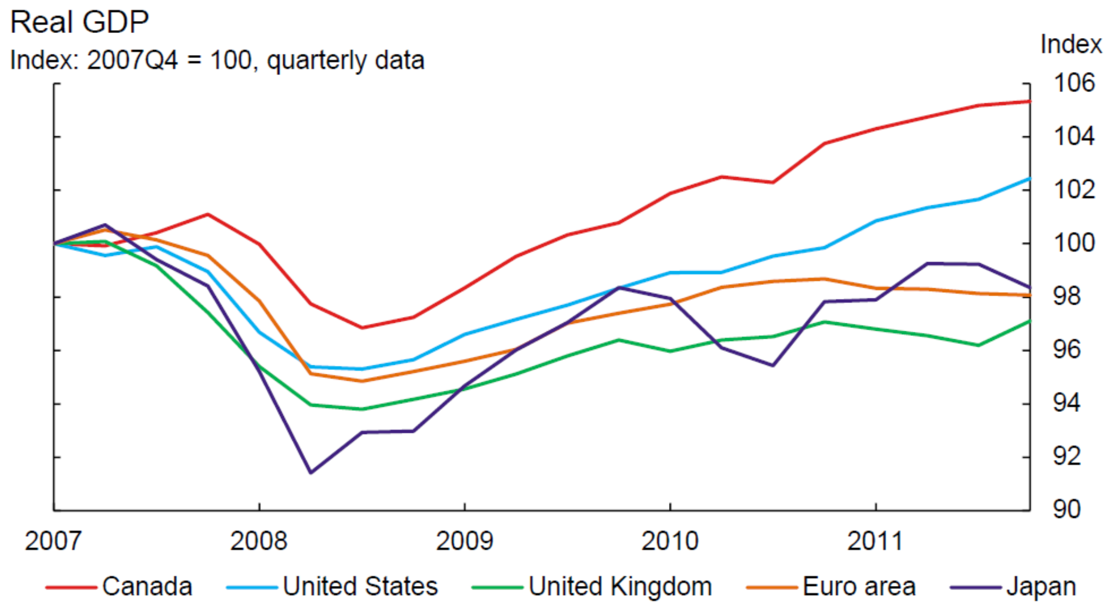
[11] T. Macklem, "A Measure of Work" (speech to the Winnipeg Chamber of Commerce, Winnipeg, 4 October 2012).

[12] Bank of Canada, "*Renewal of the Inflation-Control Target: Background Information – November 2011.*"

determination and confidence, there is no reason why we cannot continue to outperform our peers to the benefit of all Canadians.

Thank you.

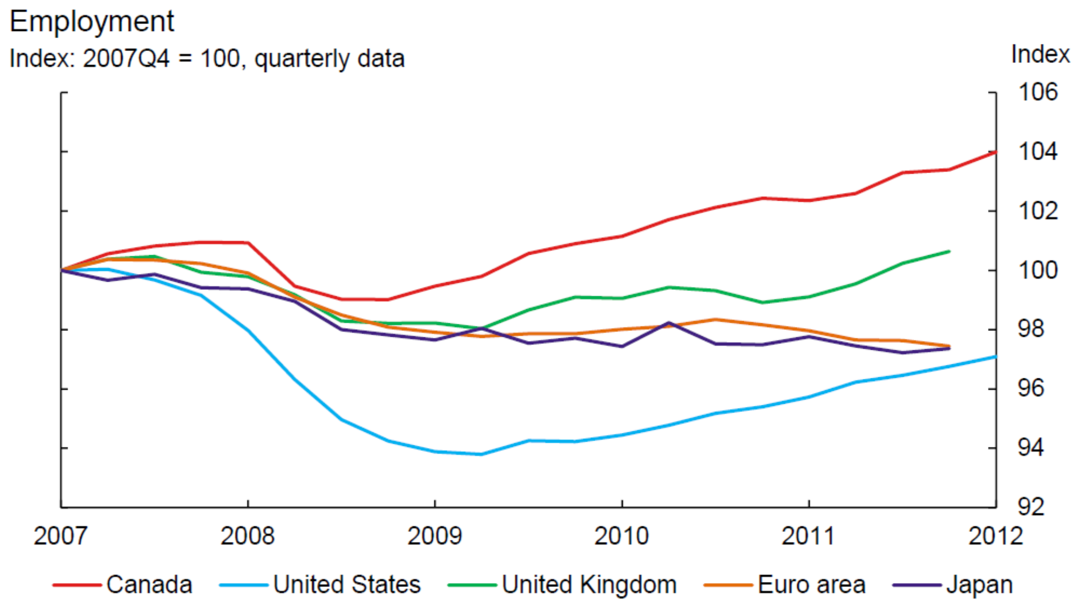
Chart 1: Canada: First country to recover recession losses



Source: Statistics Canada, U.S. Bureau of Economic Analysis, U.K. Office for National Statistics, Eurostat, Cabinet Office of Japan and Bank of Canada calculations

Last observation: 2012Q3

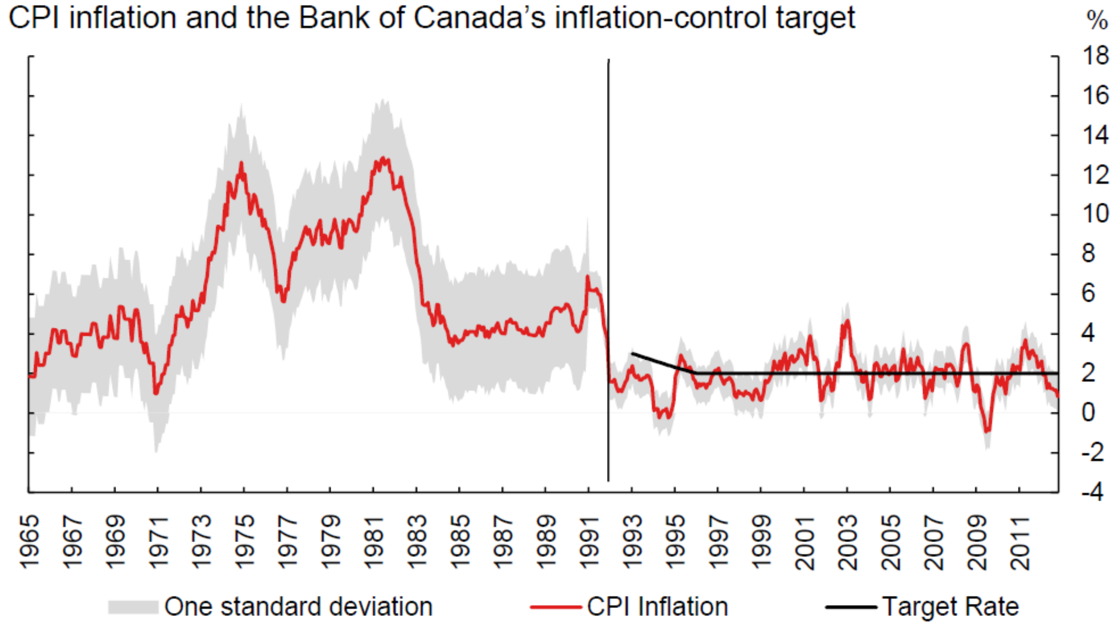
Chart 2: Canada has more than fully recovered all jobs lost



Note: Employment measured using national definition for each country
Sources: Statistics Canada, U.S. Bureau of Labor Statistics, U.K. Office for National Statistics, European Central Bank, Japan Ministry of Health, Labour and Welfare and Bank of Canada calculations

Last observation: 2012Q4 CA, US; 2012Q3 all others

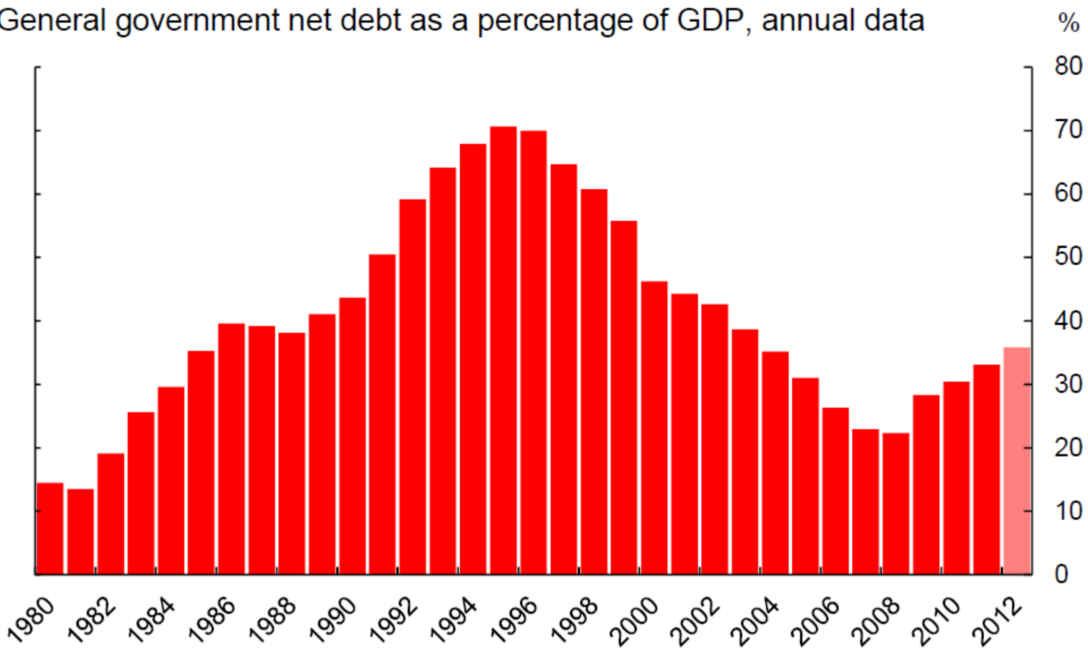
Chart 3: Over the past 20 years, inflation has averaged 2 per cent



Sources: Statistics Canada and Bank of Canada

Last observation: November 2012

Chart 4: Canada has substantially reduced its net debt

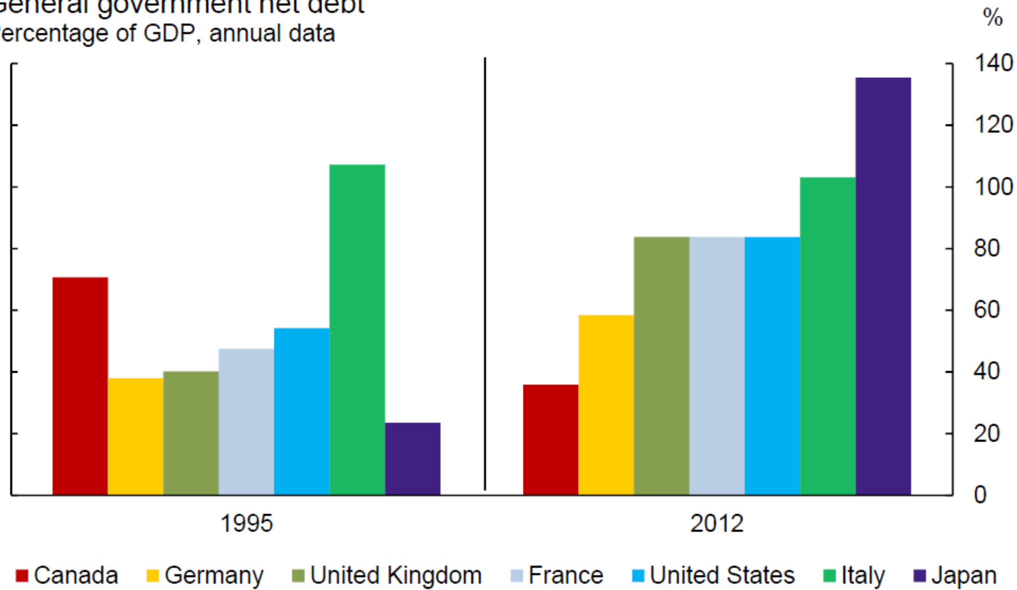


Note: Shaded bar (2012) indicates an estimate.

Source: IMF *Fiscal Monitor* October 2012

Chart 5: Canada now has the lowest debt in the G-7

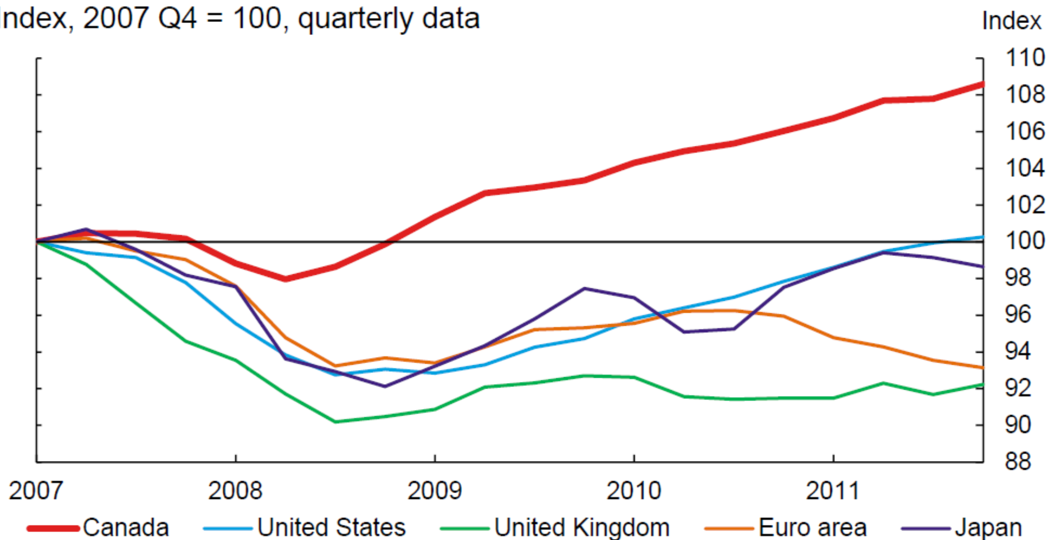
General government net debt
Percentage of GDP, annual data



Note: Debt figures for 2012 are projections from the IMF *World Economic Outlook*, October 2012
Source: IMF
Last observation: 2012

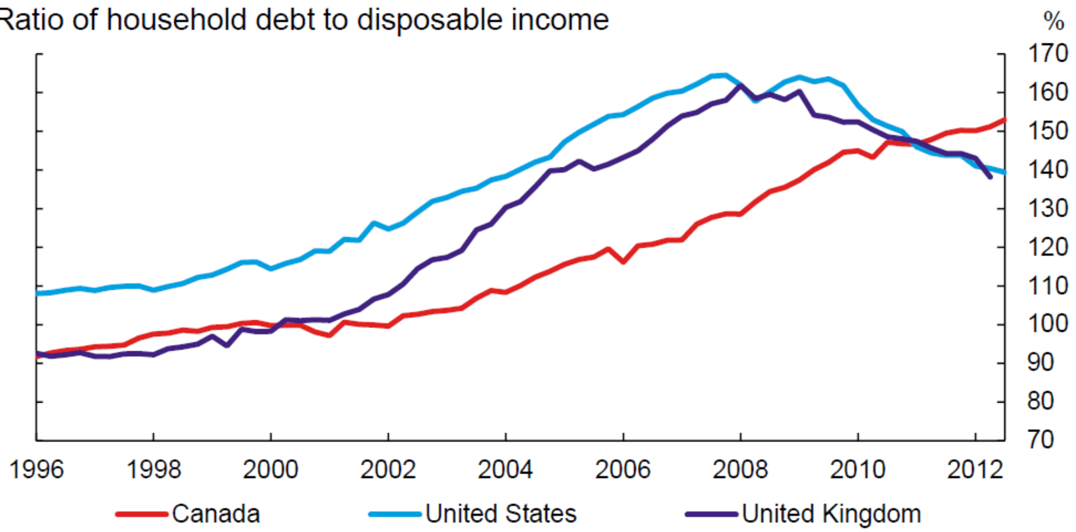
Chart 6: Final domestic demand recovered quickly in Canada

Index, 2007 Q4 = 100, quarterly data



Note: Private domestic demand includes consumer, business and residential investment, except for the euro area and United Kingdom, which also include government investment.
Sources: Bank of Canada, Statistics Canada, U.S. Bureau of Economic Analysis, Eurostat, Japan Cabinet Office, and the U.K. Office for National Statistics via Haver Analytics
Last observation: 2012Q3

Chart 7: Canadians now more indebted than the Americans or the British

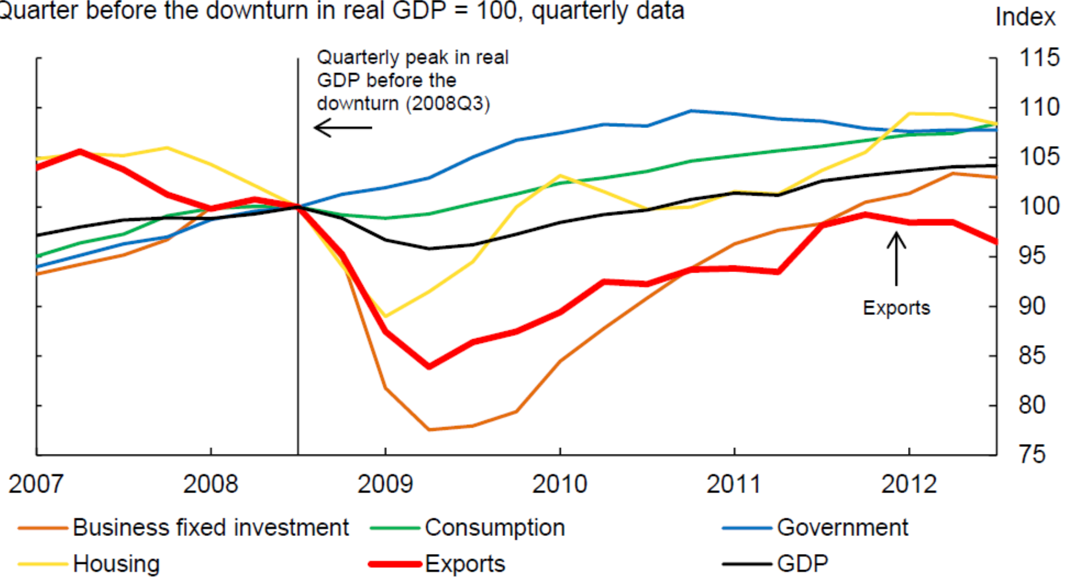


Note: For international comparability, the data for Canada include both households and non-profit institutions serving households, and the definition of disposable income is adjusted. This is the reason for the difference from the figure of 165 per cent quoted in the text.

Sources: Statistics Canada and Haver Analytics

Last observation: 2012Q3 for Canada and the United States, 2012Q2 for the United Kingdom

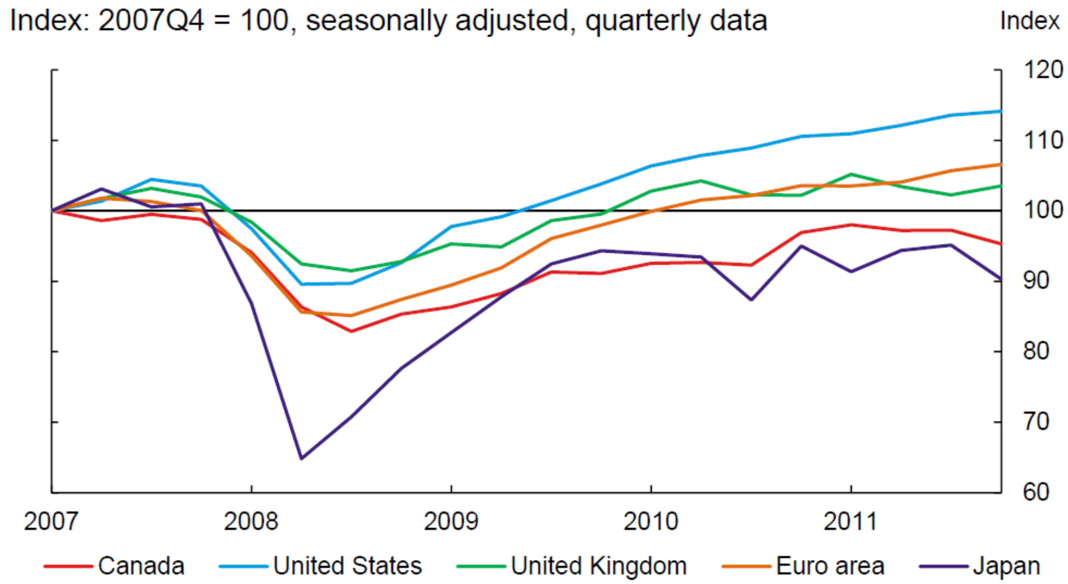
Chart 8: Exports remain below their pre-recession level



Sources: Statistics Canada and Bank of Canada calculations

Last observation: 2012Q3

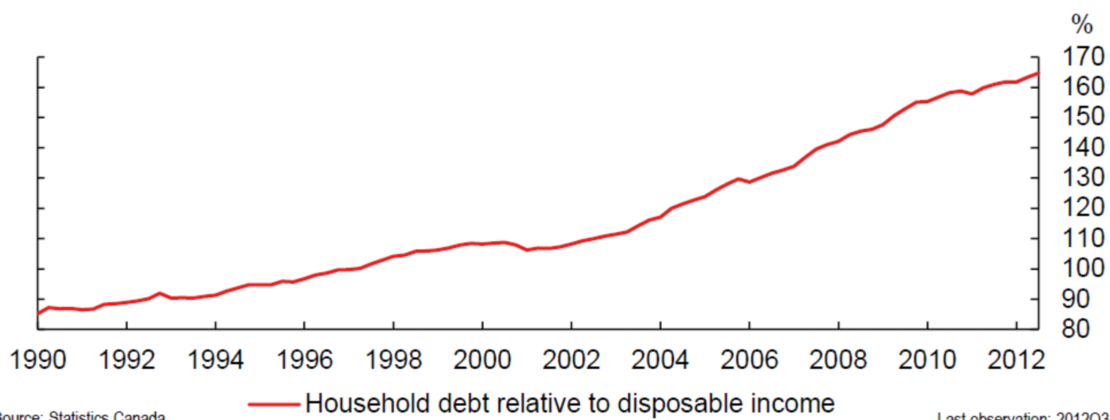
Chart 9: Canada's exports have underperformed compared with most major advanced economies



Sources: Statistics Canada, U.S. Bureau of Economic Analysis, U.K Office for National Statistics, Eurostat, Cabinet Office of Japan, Bank of Canada calculations

Last observation: 2012Q3

Chart 10: Pace of household debt accumulation has accelerated since 2002



Source: Statistics Canada

Last observation: 2012Q3

Chart 11: Canadians are in an uncomfortable neighbourhood on mortgage debt

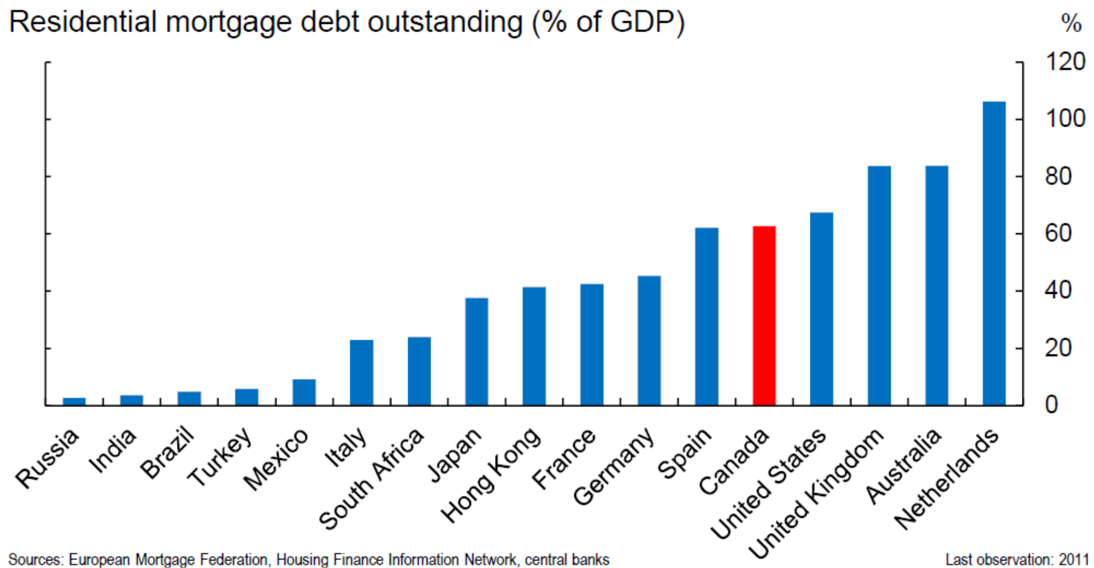


Chart 12: Residential investment in GDP is elevated

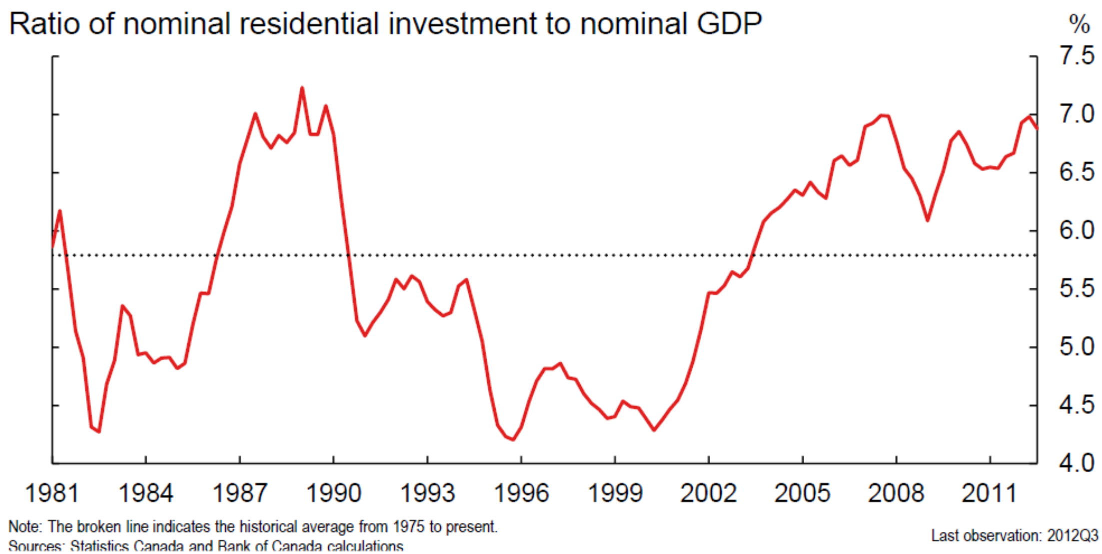
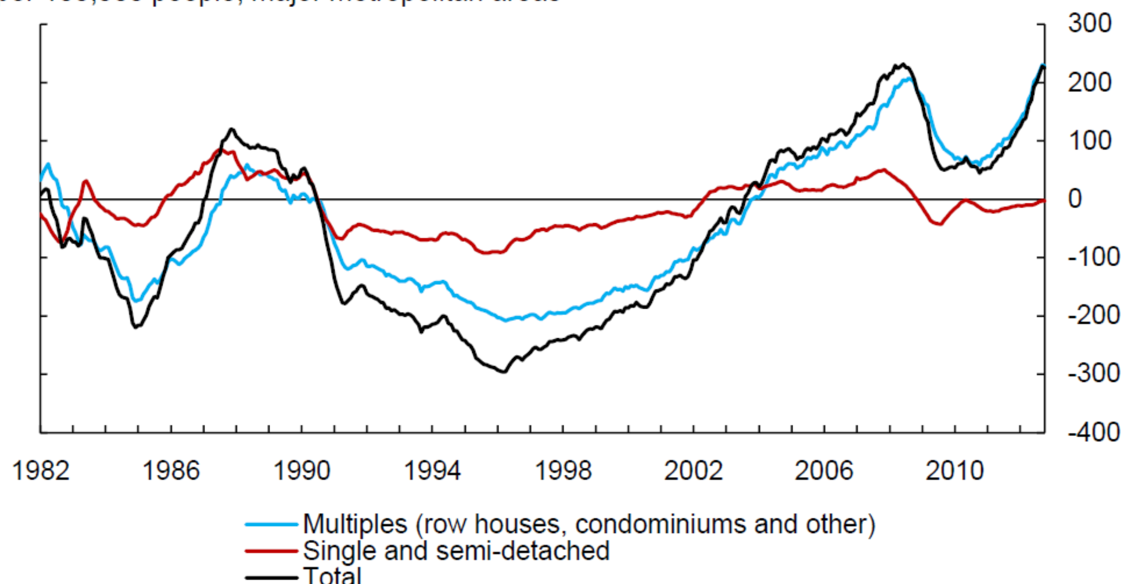


Chart 13: The supply of multi-unit dwellings under construction is significantly above its historical average

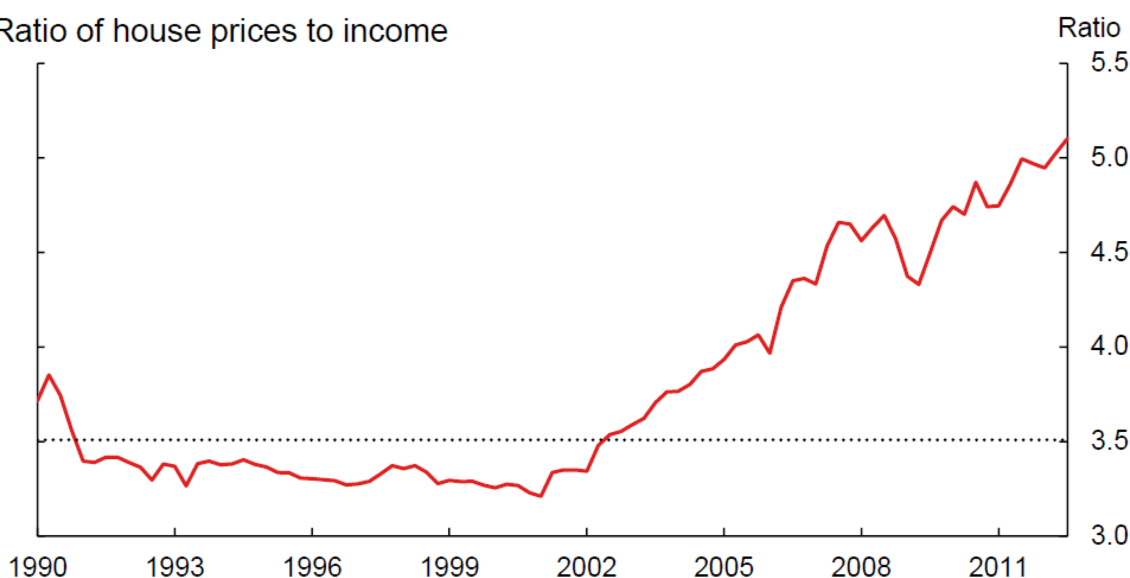
Adjusted for growth of population aged 25+ years, deviation from historical average, per 100,000 people; major metropolitan areas



Sources: Canada Mortgage and Housing Corporation, Statistics Canada and Bank of Canada calculations

Last observation: November 2012

Chart 14: House prices in Canada are still high relative to income

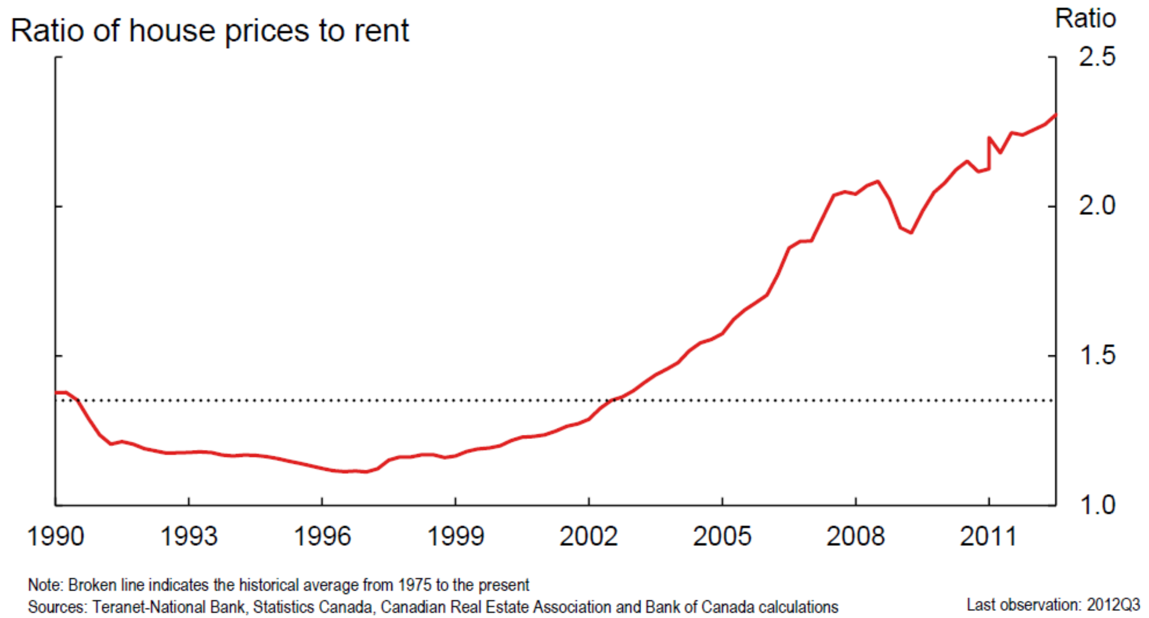


Note: Broken line indicates the historical average from 1975 to the present

Sources: Teranet-National Bank, Statistics Canada, Canadian Real Estate Association and Bank of Canada calculations

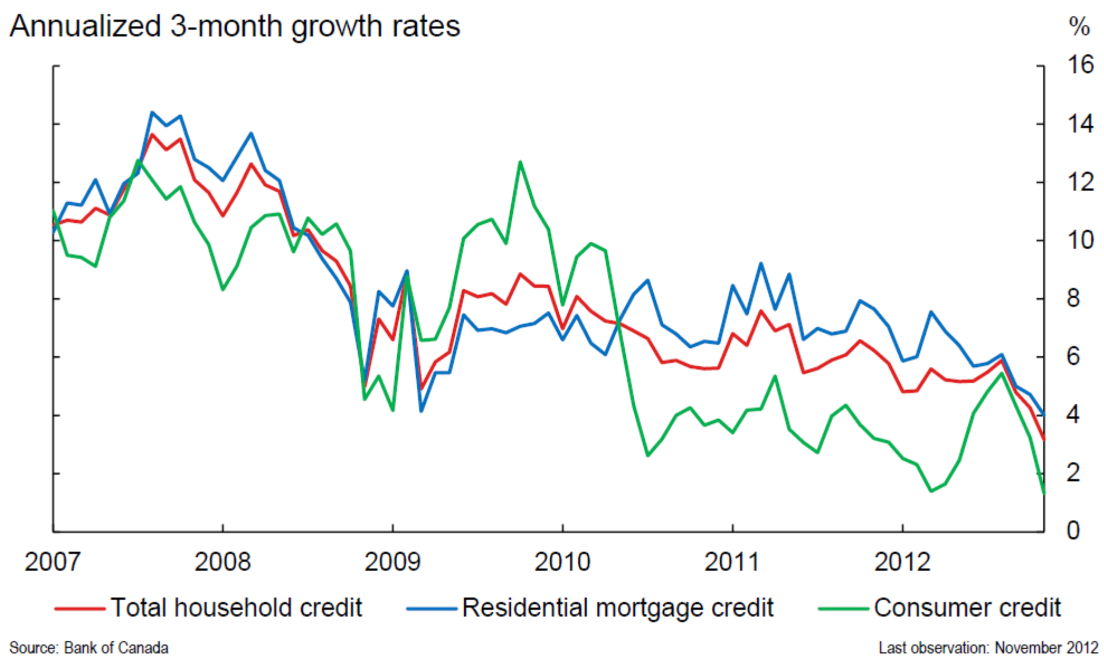
Last observation: 2012Q3

Chart 15: The ratio of house prices to rent is significantly above its historical average



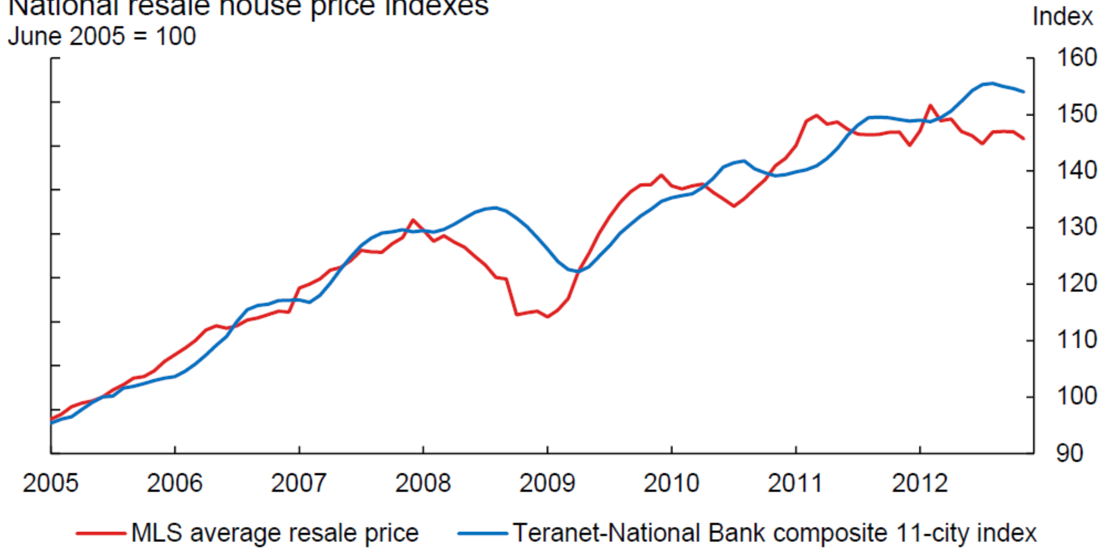
Note: Broken line indicates the historical average from 1975 to the present
Sources: Teranet-National Bank, Statistics Canada, Canadian Real Estate Association and Bank of Canada calculations
Last observation: 2012Q3

Chart 16: Growth of household credit has slowed



Source: Bank of Canada
Last observation: November 2012

Chart 17: Growth of house prices has moderated recently

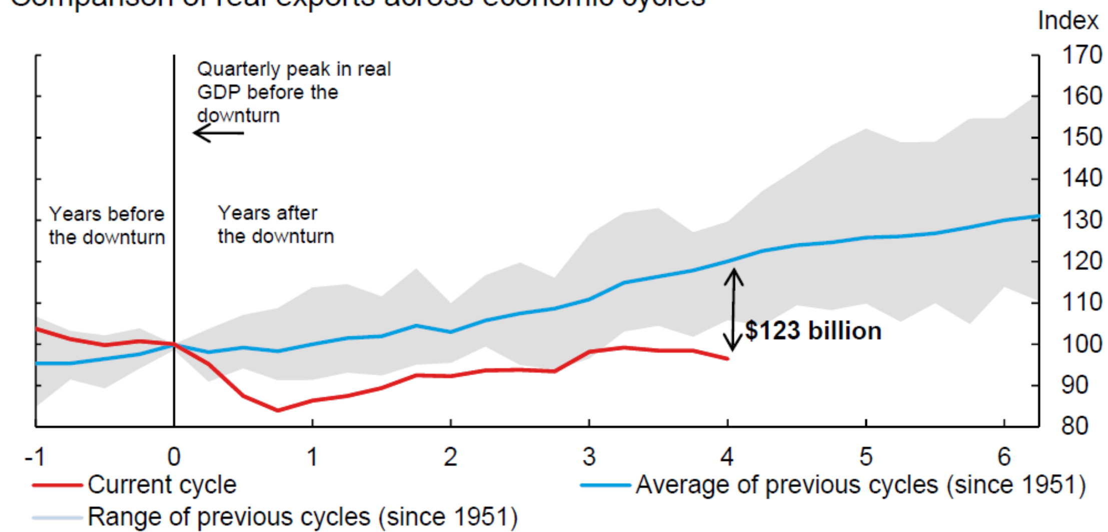


Sources: Canadian Real Estate Association and Teranet-National Bank

Last observation: November 2012

Chart 18: Weakest postwar recovery in exports

Comparison of real exports across economic cycles



Sources: Statistics Canada and Bank of Canada calculations and projections

Chart 19: Canada's share of world exports has declined

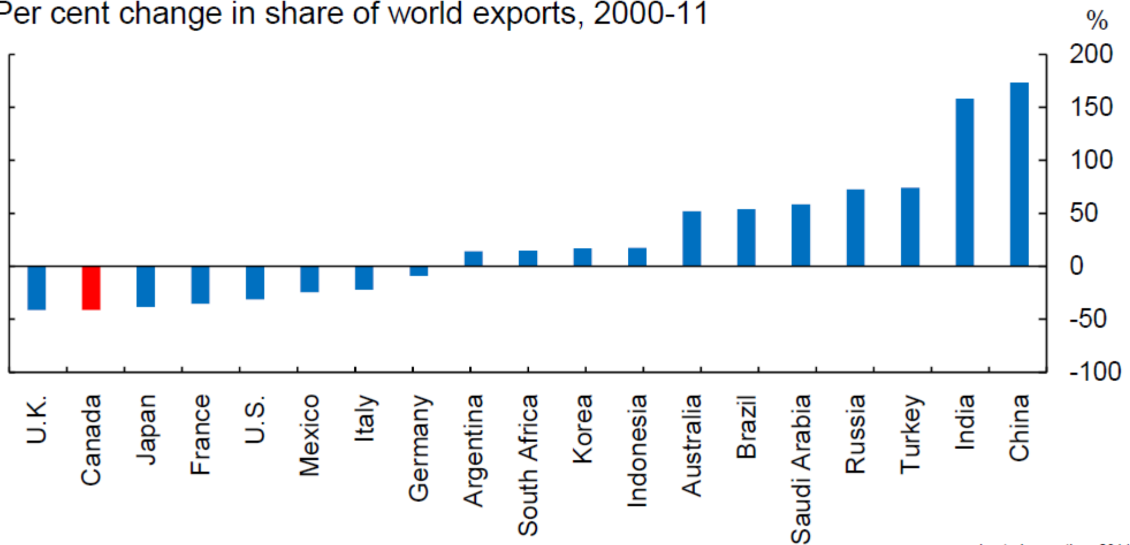
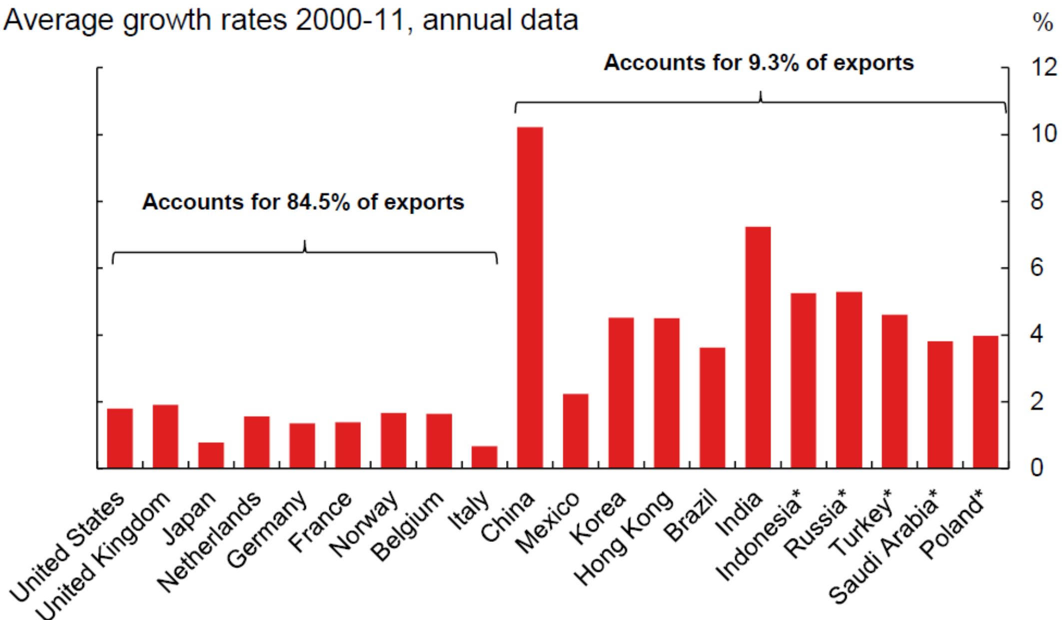


Chart 20: Canada's trade is directed toward slow-growing economies



*Country is not one of Canada's top 15 trading partners.
Note: Export shares in 2011.
Sources: IMF *World Economic Outlook*, Industry Canada and Bank of Canada calculations

Last observation: 2011

Chart 21: Canada's exposure to EMEs is relatively small

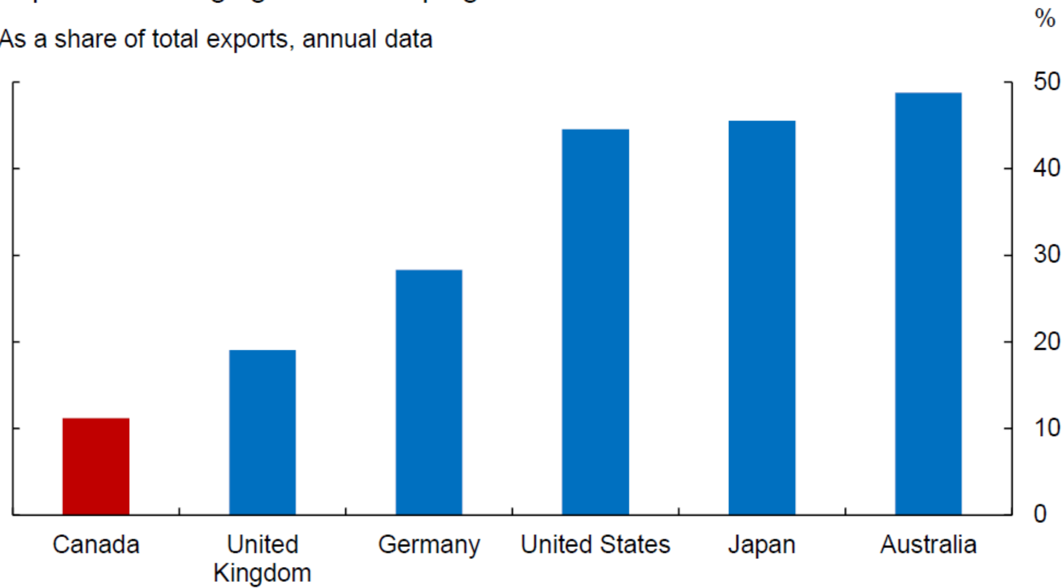


Chart 22: Canada losing share of the U.S. market

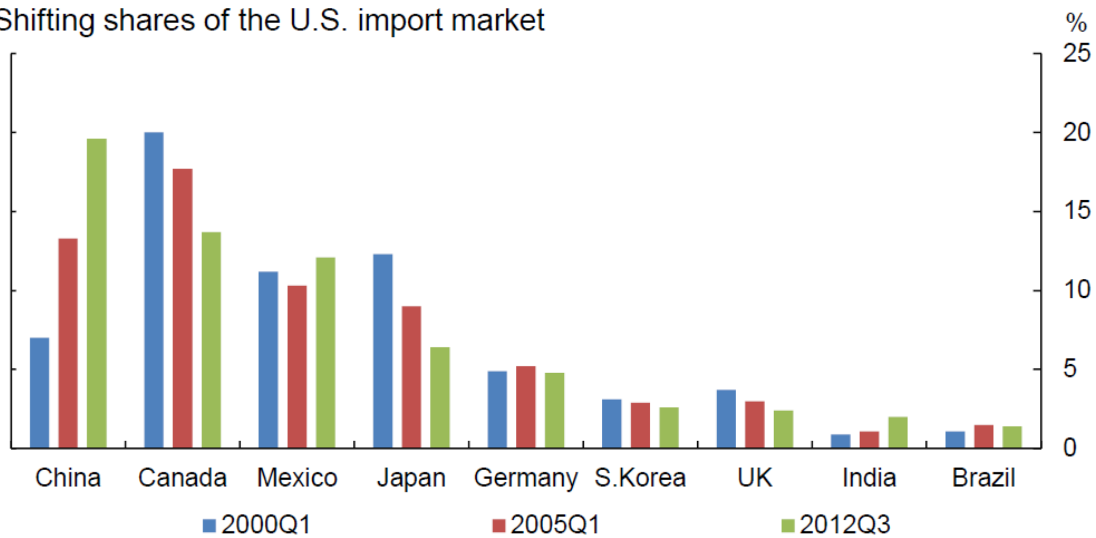
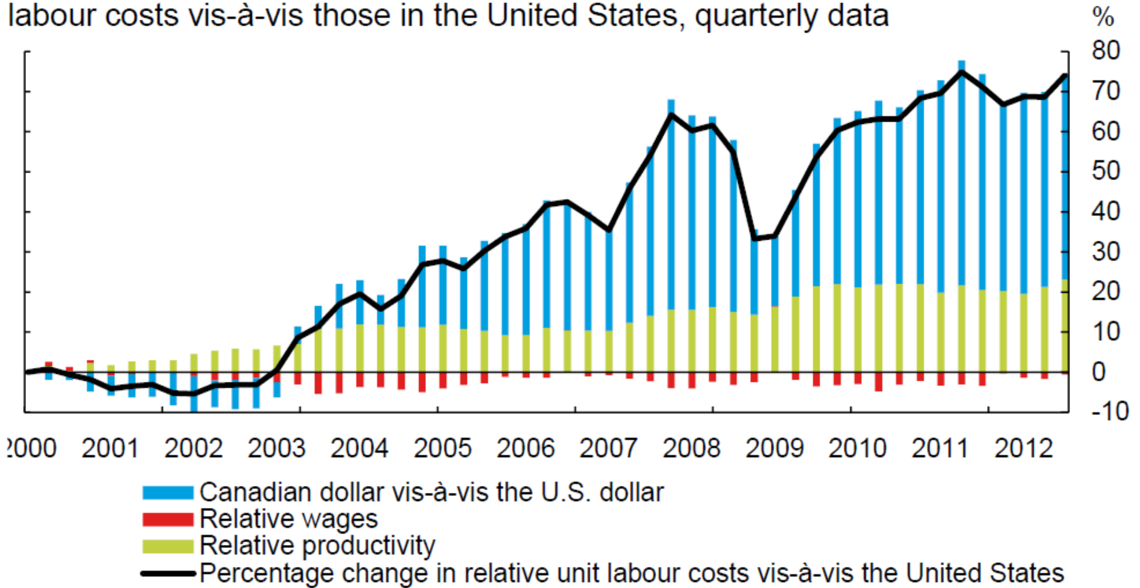


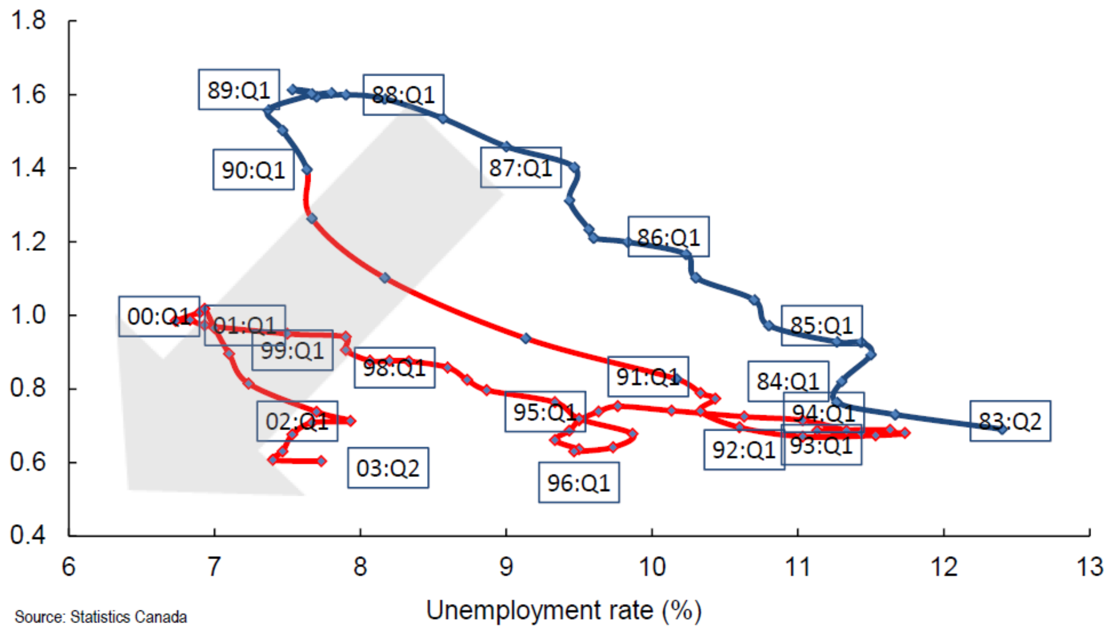
Chart 23: Canadian firms losing competitiveness



Sources: Statistics Canada, U.S. Bureau of Economic Analysis and Bank of Canada calculations

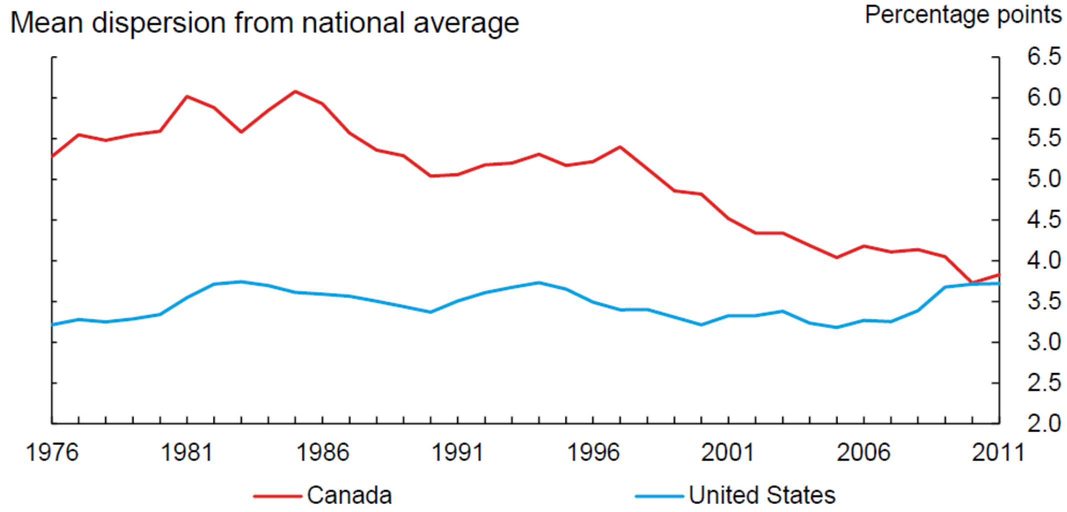
Last observation: 2012Q3

Chart 24: Canada's labour markets have become more efficient



Source: Statistics Canada

Chart 25: Dispersion of employment rates within Canada has declined



Note: Data shown are average absolute dispersion of provincial employment rates away from the overall Canadian employment rate and the same for state employment rates away from the overall U.S. employment rate.
Source: Bank of Canada calculations from Statistics Canada and U.S. Bureau of Labor Statistics data

Last observation: 2011