BANK OF CANADA
BANQUE DU CANADA

Remarks by John Murray
Deputy Governor of the Bank of Canada
Victoria chapters of the Certified Management Accountants,
Certified General Accountants and the Financial Management Institute
Victoria, British Columbia
6 March 2014

Stepping Outside: Analyzing the Canadian Economy from an International Perspective

Introduction

Good morning. Thank you for the invitation to address your workshop.

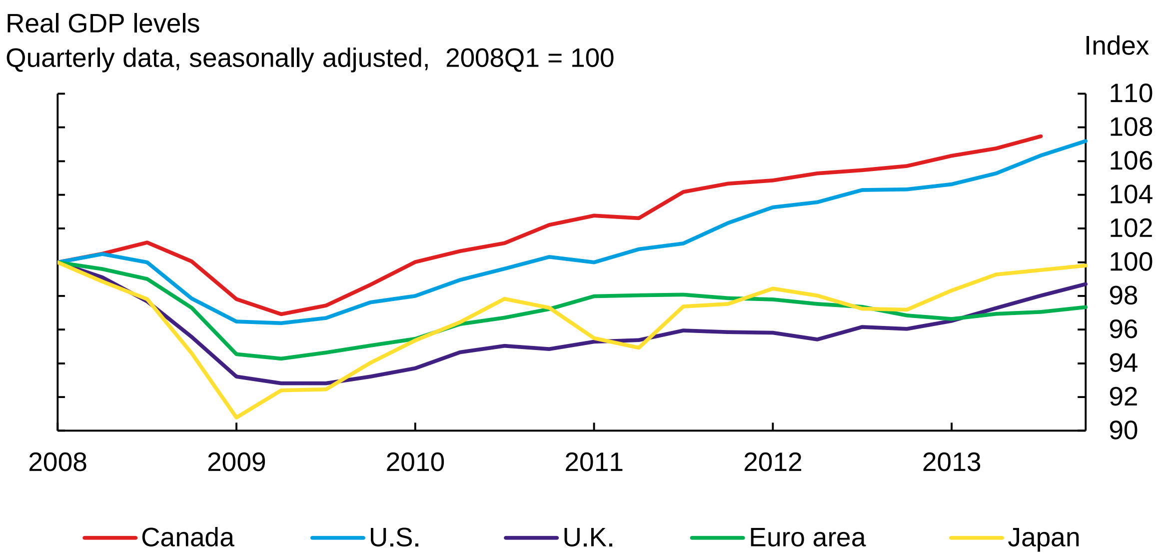
One of my responsibilities as a Deputy Governor of the Bank of Canada is overseeing the Bank's analysis of international economic developments. And before I became a Deputy Governor, I was Chief of the Bank's International Department. So over the years, I have had the opportunity to study other economies and the policies of other governments and central banks in some detail.

Looking at Canadian economic issues from an international perspective allows us to ask: How are we the same? How are we different? There is often a benefit to looking outward, examining developments beyond our borders as an aid to diagnosing and addressing suspected policy puzzles and problems at home. At the same time, we must be careful not to assume that what has happened elsewhere will necessarily happen here.

Canada's superior economic performance during the financial crisis and through the subsequent recovery, relative to that of most other advanced economies, was due in no small part to the Bank of Canada's success in controlling inflation and the credibility that it has earned since 1991, when we adopted our inflation-targeting monetary policy (**Chart 1** and **Chart 2**).[1] Of course, other advantages, such as a resilient financial system and timely fiscal stimulus, also contributed importantly.

However, I am not here to boast about our past successes. My purpose today is more immediate, and comes in three parts. I will begin by describing the two major macroeconomic challenges to sustainable economic growth that we are presently facing in Canada. Next, I will outline three analytic puzzles underlying those challenges, which we need to understand in order to formulate an appropriate monetary policy response. Finally, I want to demonstrate how information gleaned from the experiences of other countries can help answer these puzzles and guide the conduct of policy here.

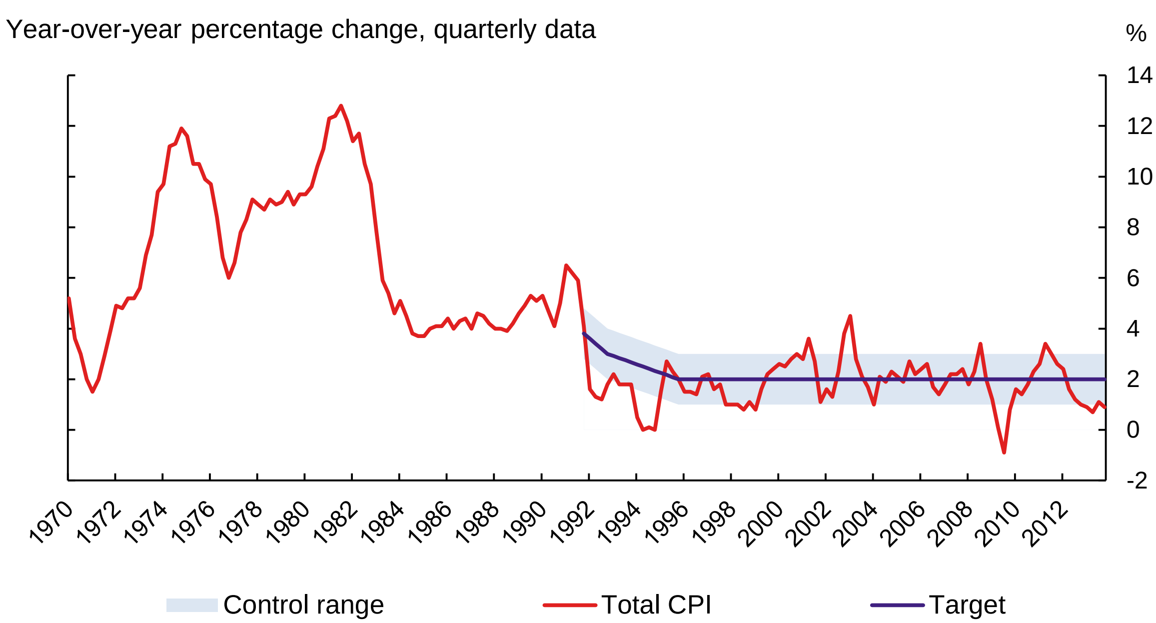
Chart 1: Real GDP in Canada fell less during the crisis than in other G-7 countries and recovered faster



Sources: 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 observations: 2013Q3 for Canada; 2013Q4 for others

Chart 2: Inflation has remained close to the Bank's 2 per cent target since the early 1990s



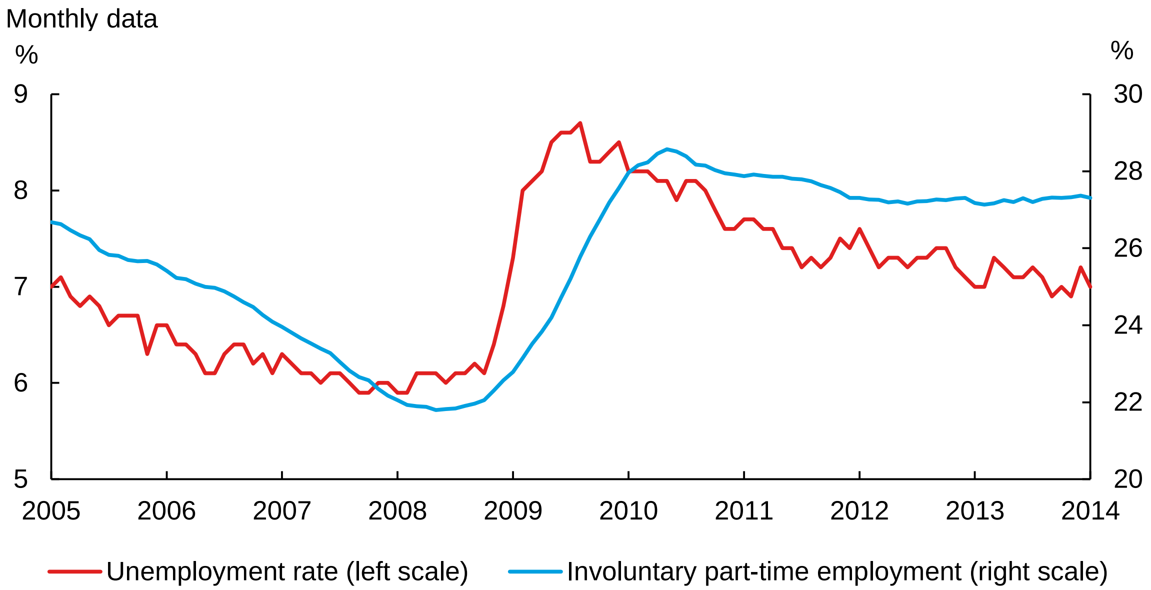
Sources: Statistics Canada and Bank of Canada calculations and projections

Last observation: 2013Q4

Two Major Macroeconomic Challenges

Economic activity in Canada has remained significantly below its potential level for some time (**Chart 3**), and the weak rates of inflation that have recently been observed are largely a reflection of this (**Chart 4**). The Bank's *first* challenge, therefore, is to return inflation to the 2 per cent target jointly adopted by the Bank and the Government of Canada, and to return production in the real economy to its capacity level, since satisfying these two conditions generally goes hand-in-hand.

Chart 3: Unemployment and involuntary part-time employment rates indicate that economic activity remains below potential in Canada



Source: Statistics Canada

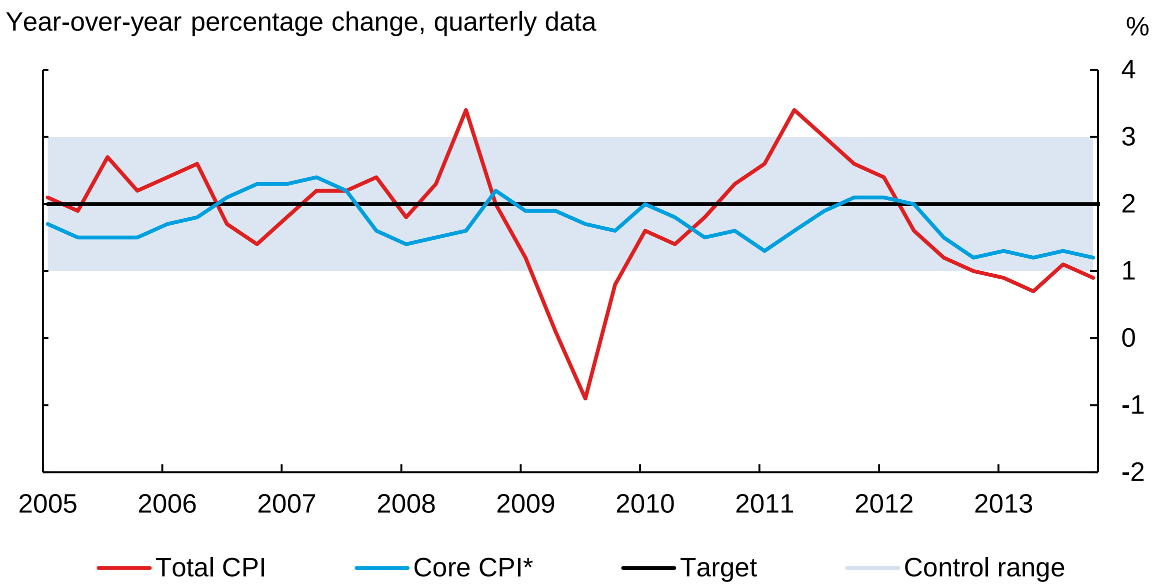
Last observation: January 2014

Eliminating excess supply in the economy and returning inflation to target are not enough, however. The *second* challenge is unbalanced economic growth. The sources of growth must be well balanced for growth to be sustainable. A rapid return to potential is neither sufficient nor desirable, if it is only temporary and purchased at the cost of future instability and lower growth.

What do I mean by unbalanced economic growth, you might ask? Why isn't all growth, by whatever means, good? In today's economy, a lack of balance implies growth that has relied too heavily on increases in household spending—in particular, the purchase of houses, with a resultant rapid increase in household debt. Future growth, if it is to last, needs to draw more support from business fixed investment and exports.

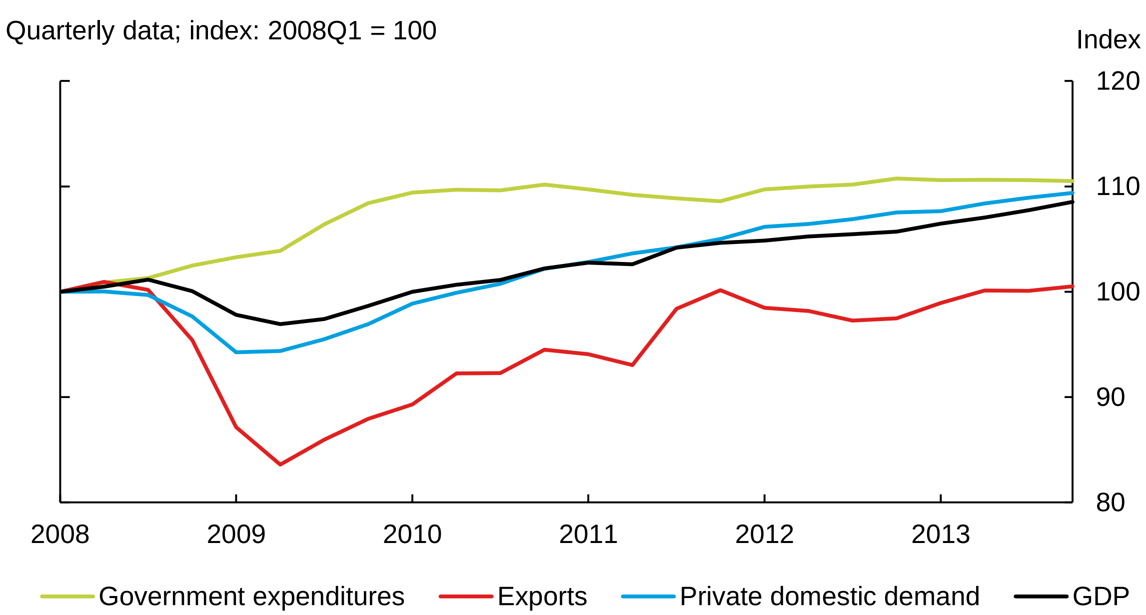
During the depths of the last recession, demand for our exports collapsed, and extraordinarily accommodative monetary policy was needed to boost domestic demand in order to support employment and income (**Chart 5**). The Bank's timely and aggressive policy actions—combined with extraordinary fiscal stimulus—worked, with extra internal demand effectively substituting for weak external demand. However, there are limits to how far this can be taken. The household sector is now largely played out; pushing it much further could lead to trouble. So we are left with an economy that in many respects has done well, but one in which both output and inflation are roughly 1 per cent below where they should be, and where the sources of demand need to be rotated.[2]

Chart 4: Slack in the economy is reflected in the recent weak rates of inflation



*CPI excluding eight of the most volatile components and the effect of changes in indirect taxes on the remaining components
Sources: Statistics Canada and Bank of Canada calculations and projections
Last observation: 2013Q4

Chart 5: Exports collapsed during the recession but monetary and fiscal policies helped boost domestic demand



Sources: Statistics Canada and Bank of Canada calculations
Last observation: 2013Q4

Macroeconomic Puzzles

The Bank's base-case projection, as presented in our January *Monetary Policy Report*, has output returning to potential and inflation gradually returning to target in roughly two years. Setting the Bank's overnight interest rate—the Bank's primary monetary policy instrument—at the appropriate level over this period to achieve our objective always requires considerable judgement and must often balance more than one risk to the economy. Some of this uncertainty derives from not having a clear fix on where the economy is at present and what forces are acting on it. The output gap, for example, is not observable, and has to be estimated.

But the challenge is more serious than simply not knowing exactly where the starting point is. Since monetary policy operates with long and variable lags, policy formulation must be forward-looking and anticipate the forces that might be acting on the economy one and two years out.[3]

The present situation is further complicated by three macroeconomic puzzles—the recent behaviour of three key variables and their implications for future economic performance.

First, inflation has been unusually weak given the estimated size of the output gap and other identifiable forces thought to be putting downward pressure on prices.

Second, fixed investment has been unusually weak given healthy corporate balance sheets, historically high profits, the low cost of capital and the growing momentum of the global recovery.

Third, non-commodity exports have been unusually weak given strengthening global growth and somewhat improved competitive conditions.

In other words, the macroeconomy has not been unfolding exactly as we had expected.

The tendency in these situations is to view the puzzles as uniquely Canadian and to look for domestic explanations. Perhaps inflation is surprisingly weak because the output gap in Canada has been mismeasured: there might be more excess supply in the economy than the Bank has estimated. Perhaps exports are weak because Canadian firms are less competitive than originally thought, so exports are not rebounding as quickly as the growth in U.S. demand would suggest. Perhaps investment is weak because Canadian firms are inherently cautious and too conservative or because exports have underperformed.

Looking inward for answers might be too limiting, however, and cause us to ignore helpful information elsewhere. Economic developments in Canada are often surprisingly similar to those observed in other countries. This is not simply because Canada is a small, open economy, and therefore subject to significant shocks originating in the global economy, although this no doubt accounts for much of the synchronous movement here and abroad. The similarity is also driven in many cases by more general global forces that are affecting several economies simultaneously, and that manifest themselves in Canada even when there are no obvious direct trade or investment links to these other countries. Alternatively, the similarity could be to events in another country that happened some time ago, which nevertheless bear a striking resemblance to our own situation, and are therefore instructive.

Whatever the nature or source of these common patterns, they are potentially useful as a counterpoint to our own experience, an important and valuable lens through which to examine the Canadian condition.

What I propose to do now, is to take each of the puzzles described above and show how looking outward has improved our understanding of what is happening within.

The Three Puzzles from an International Perspective

Weak inflation

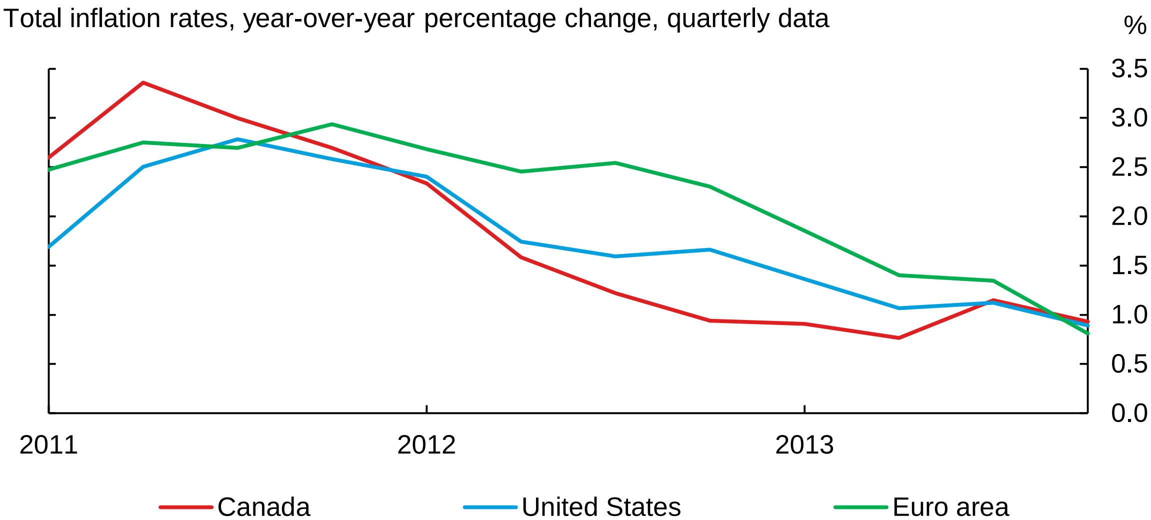
The first thing to note about inflation is that it is weak across virtually all of the advanced economies. Canada is not alone. Indeed, inflation is well below the target levels in almost all advanced economies (**Chart 6**). It is not just the low level that is noteworthy, however. It is also the timing of the weakness. Most of the observed down-shift in inflation has occurred within the past two years. The significance of this will become apparent in a moment.

In Canada, the weakness has been credited largely to continuing excess supply in the economy, which is putting downward pressure on wages and prices, and to an increase in competitive pressures in the retail sector. But, according to our best estimates, these factors are unable to explain the entire shortfall.

Looking at inflation in other countries, one might be tempted to argue that there are global forces at work, and that inflation in Canada is not determined exclusively by domestic forces. In fact, statistical evidence gathered from something known as principal component analysis, which captures a common factor from various data sets, suggests that for total inflation as measured by the consumer price index (CPI) this is, to a degree, true.

Chart 6: Inflation is well below target in almost all advanced economies

Total inflation rates, year-over-year percentage change, quarterly data



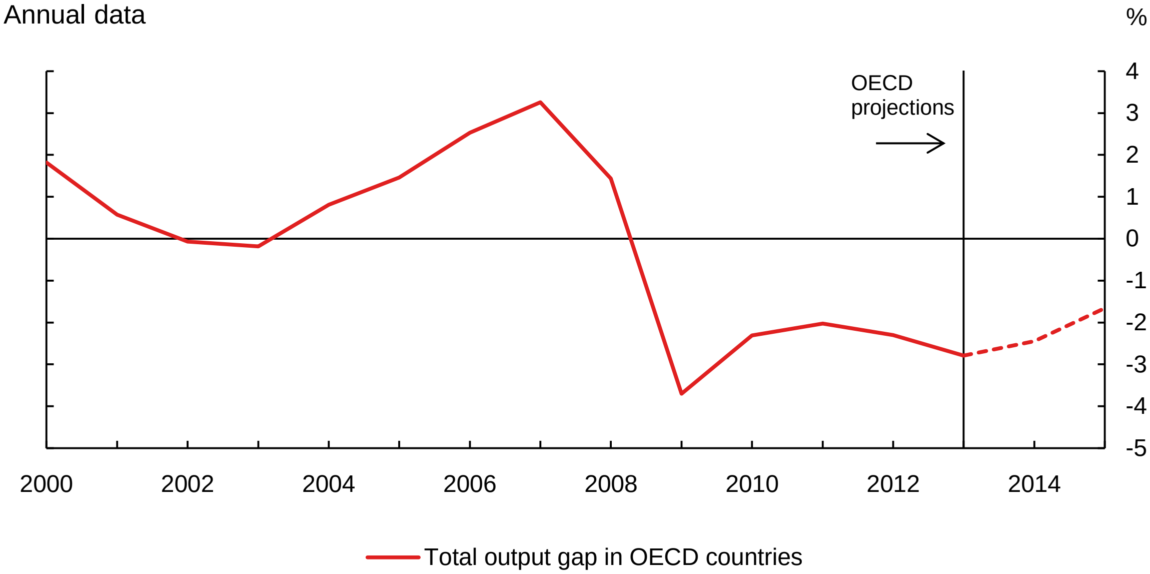
Note: For the United States, the price index for personal consumption expenditures is shown, while for other countries, it is the consumer price index.
Sources: Statistics Canada, U.S. Bureau of Economic Analysis and Eurostat
Last observation: 2013Q4

The high correlation one observes among rates of total CPI inflation in all of these countries is driven to an important degree by common movements in food and energy prices, which are known to be highly volatile and largely determined in world markets. This finding is not a surprise, but more a confirmation of something that was already known.

The surprise relates more to the movements in *core* inflation, which also exert an important influence on total CPI inflation.[4] While it is difficult to identify a common component using statistical techniques, they have moved in concert and have all shifted down quite recently.

The existence of a sizable output gap in each of the countries could offer an explanation, but the timing is not right. These gaps have existed for several years, and, in some cases, have been narrowing (**Chart 7**). So why would inflation weaken now?

Chart 7: There is widespread excess capacity in the global economy
Annual data



Note: The 2013-15 values are projections.
Source: OECD Economic Outlooks November 2013

It is possible that idiosyncratic developments, peculiar to each country, could explain the common pattern, but such an extreme coincidence seems unlikely. The more likely lesson that one might draw from this shared international experience is that the effect of output gaps on inflation is subject to a much longer lag than previously thought and that, to have an effect, the gaps must be not just large, but persistent. Indeed, the sensitivity of prices to excess supply might increase through time.

This is not to preclude the possibility of other forces at work in Canada, such as an output gap that might be underestimated, just that the alternative explanation—a delayed response—must be given serious consideration. Provided this relationship holds, inflation can be expected to return to target as output returns to potential.

Weak investment

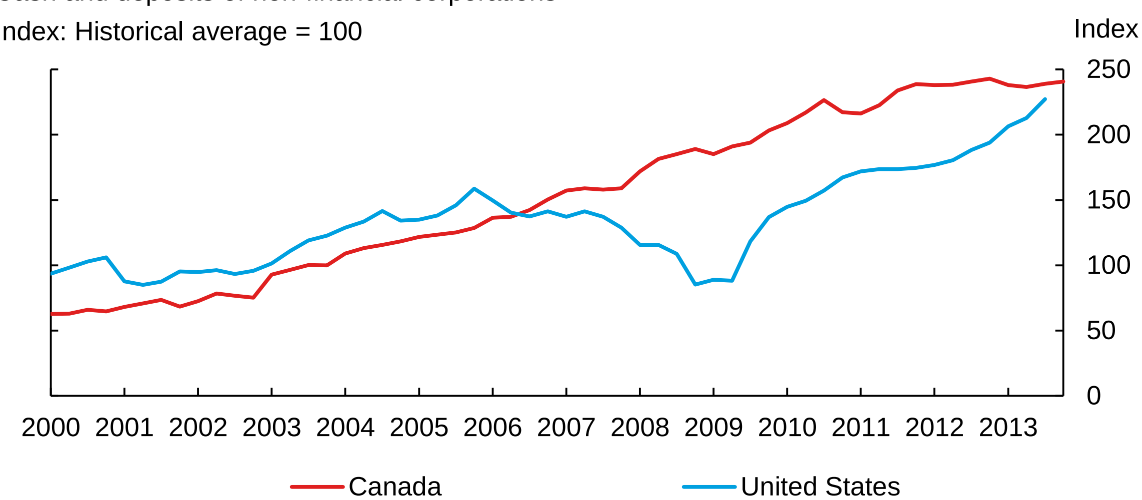
The story for “missing investment” in Canada is much the same. One can easily identify a number of homegrown factors that might be inhibiting business investment here (**Chart 8** and **Chart 9**). Are Canadians risk-averse by nature? Are Canadian businesses too comfortable with what has worked in the past, and reluctant to strike out in new directions? Are there institutional or financial impediments that we are not aware of? Could weak investment be the result of the poor performance of our non-commodity exports since the end of 2011? Before answering yes to one or all of the above, it is important to note that businesses in other countries have also been accumulating cash balances and delaying fixed investments—in many instances reporting rates of investment that are much lower than the rates of depreciation, pushing the capital stock ever lower. “Dead money,” as it has been called, is not a uniquely Canadian phenomenon.

Researchers in the United States have advanced an explanation based on their statistical work that is both intuitive and convincing.[5] They have shown that uncertainty exerts a significant and distinct dampening effect on investment decisions, separate from other factors that might be closely related to it. Their results have been replicated by researchers elsewhere, and one can see a tight correspondence, if not causal relationship, between their measures of uncertainty and fixed investment activity. It would not be surprising if businesses were a little gun-shy and reluctant to commit large sums of money following the traumatizing experience of the crisis. The value of waiting for greater clarity is simply too high. Fortunately, the uncertainty appears to be receding, and there are signs that investment activity will accelerate in the near future.

Chart 8: Non-financial corporations in Canada and the United States have been profitable and cash-rich

Cash and deposits of non-financial corporations

Index: Historical average = 100

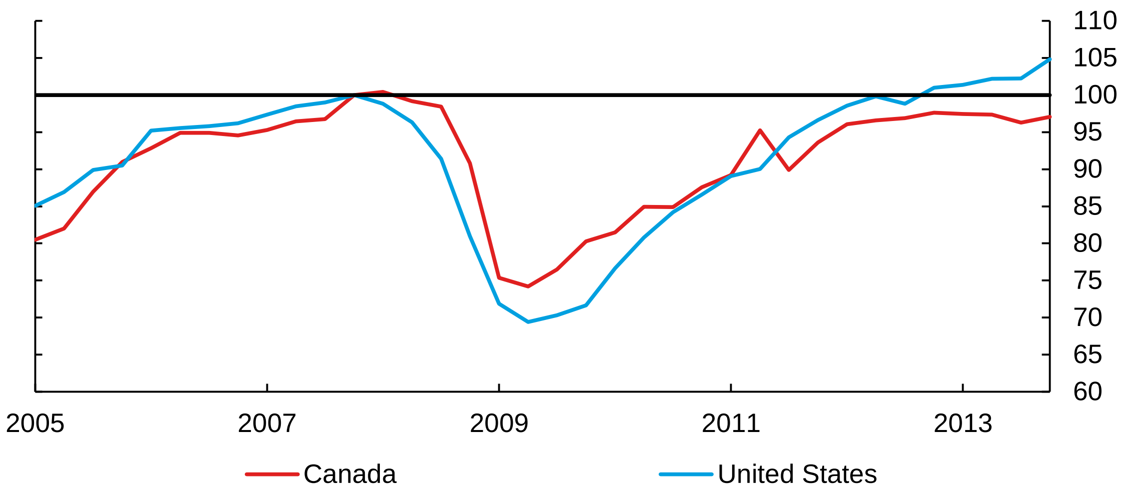


Sources: Statistics Canada, and Board of Governors of the Federal Reserve System

Last observations: 2013Q3 for the United States; 2013Q4 for Canada

Chart 9: Although non-financial corporations have been profitable, investment in equipment has been weak

Index: 2007Q4 = 100, quarterly data



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

Last observation: 2013Q4

Weak exports

The recent disappointment related to Canadian exports follows much the same pattern as inflation and investment, but with one or two notable differences. There has been a seeming disconnect between foreign demand and the performance of Canadian non-commodity exports over the past two years. The sectors of the U.S. economy that did especially badly in the recession were those that were especially important to Canadian exporters. As these sectors recovered, our exports should have accelerated. But they didn't. This disappointing performance is true even after one adjusts for the persistent strength of the Canadian dollar and the marked decline in our international competitiveness since the early 2000s. While it is possible that competitiveness or foreign demand, which the Bank proxies with a foreign activity measure (FAM), could have been mismeasured, sagging competitiveness seems to be a less obvious candidate.[6] Neither the dollar, nor competitiveness defined more generally (i.e., in terms of productivity and wage gaps adjusted for the exchange rate), has shown any evident break in trend. Most of the export disappointment is specific to the past two years (**Chart 10** and **Chart 11**).

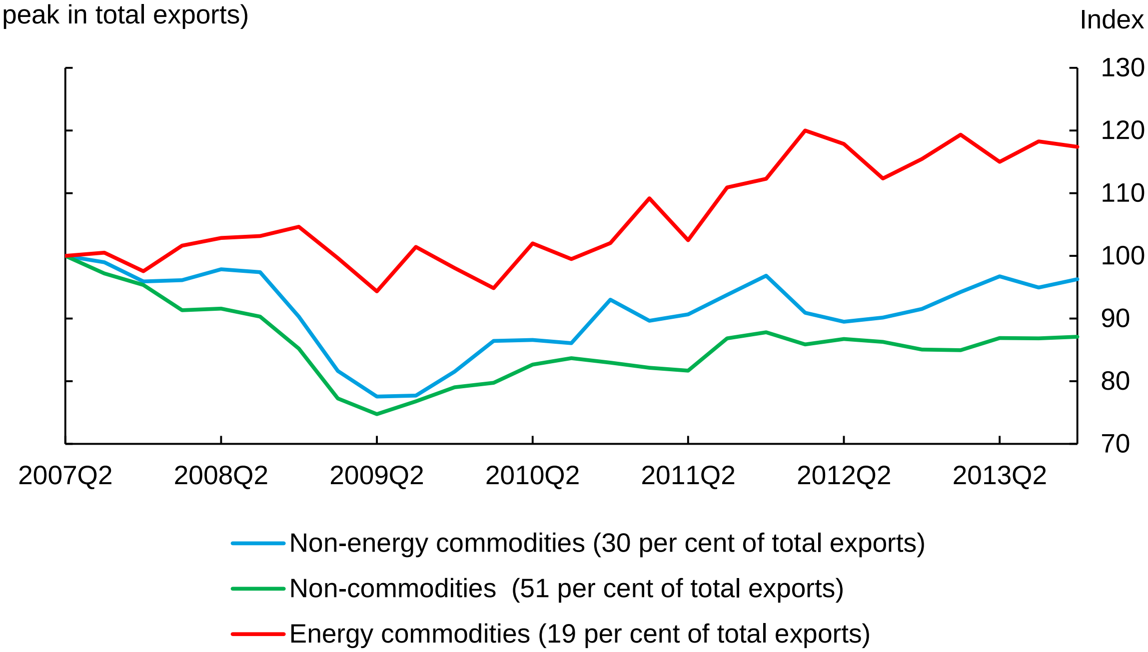
Interestingly, the growth in global trade collapsed at about the same time and even more dramatically than the fall-off in Canadian trade (**Chart 12**). Perhaps the weakness in Canadian exports has a common cause and we should be thankful for what we have.

In this case, however, any race to judgment based on coincident timing could be misleading. Most of the reasons put forward for the collapse in global trade, such as constraints on the availability of trade financing and exceptionally weak economic activity in Europe, have little direct relevance for Canada.[7]

An alternative explanation has been put forward, however, that also has a foreign origin and holds a little more promise. It relates to the fiscal cliff in the United States and the significant budget consolidation that has been underway there in the past two years.

Chart 10: Excluding energy, exports have been weak

Real exports and the foreign activity measure; index: 2007Q2 = 100 (pre-recession peak in total exports)

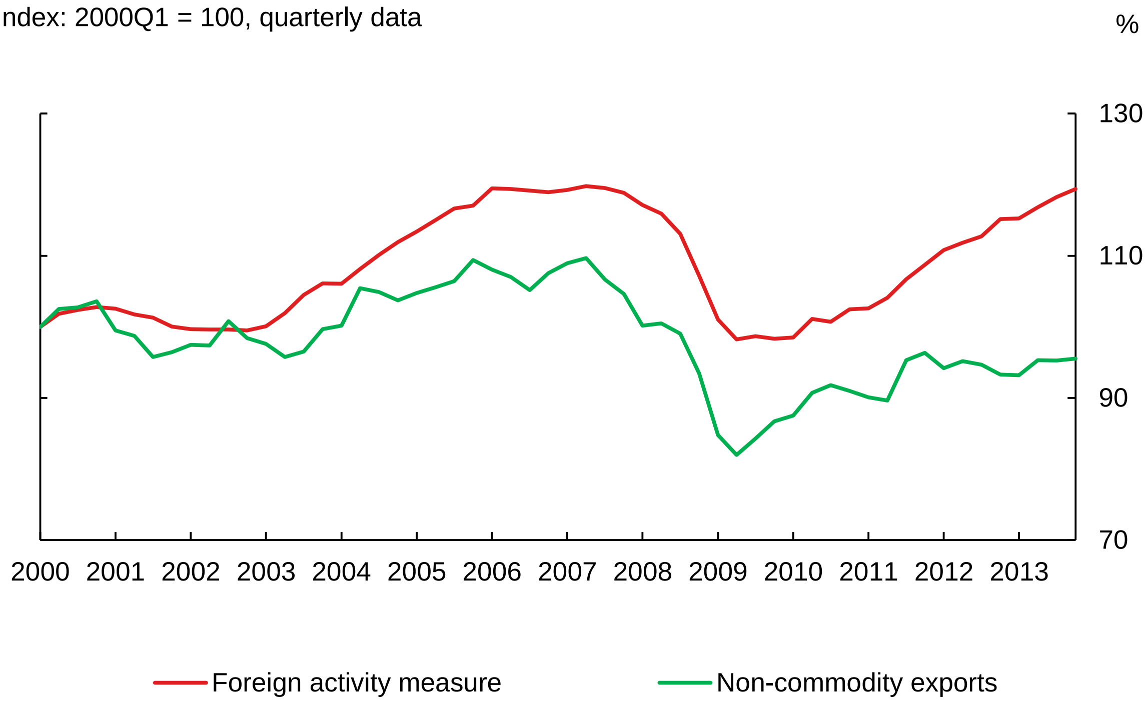


Sources: Statistics Canada and Bank of Canada calculations

Last observation: 2013Q4

Chart 11: A disconnect has become apparent between the foreign activity measure and the growth of non-commodity exports

Index: 2000Q1 = 100, quarterly data

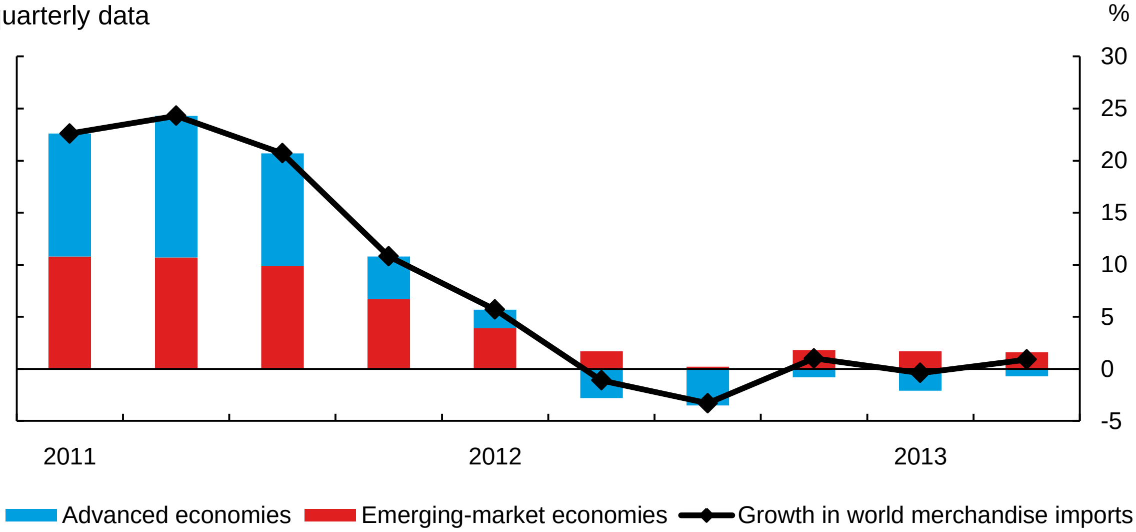


Sources: Statistics Canada and Bank of Canada calculations

Last observation: 2013Q4

Chart 12: Global trade growth plunged after 2011

Contribution to year-over-year percentage change in nominal world merchandise imports, quarterly data



Note: Nominal world merchandise imports are measured in U.S. dollars.
Source: World Trade Organization

Last observation: 2013Q2

Although one might assume that the demand for Canadian exports from U.S. governments (federal, state and local) would be minimal, preliminary evidence suggests that approximately 12 per cent of our non-commodity exports over the 1997 to 2012 period went to the U.S. government sector. Moreover, a modified version of the Bank's foreign activity measure, which gives greater recognition to U.S government purchases, seems to improve our ability to capture the weakness in exports over the last two years. However, its explanatory power over the previous three years is not nearly as good. Work is ongoing, therefore, with a view to developing alternative measures of foreign activity which might perform better over the entire period.

This provides a useful example of how the international perspective has the potential to mislead as well as inform. One possible connection proved to be a dead-end, while the other points to a possible answer. Correlation does not necessarily imply causation, but it helps us to flag events that might warrant further investigation.

High household debt and housing sector activity

Household debt and activity in the Canadian housing sector have also attracted considerable attention in the past few years. Unlike the three earlier examples—inflation, investment and exports—high household debt and housing sector activity do not necessarily represent a puzzle. However, they have reached historic highs and have been stronger and more resilient than many economists had expected. Household debt and housing sector activity are not only exceedingly elevated relative to past experience in Canada, they have also approached levels where real estate busts were observed in other countries.

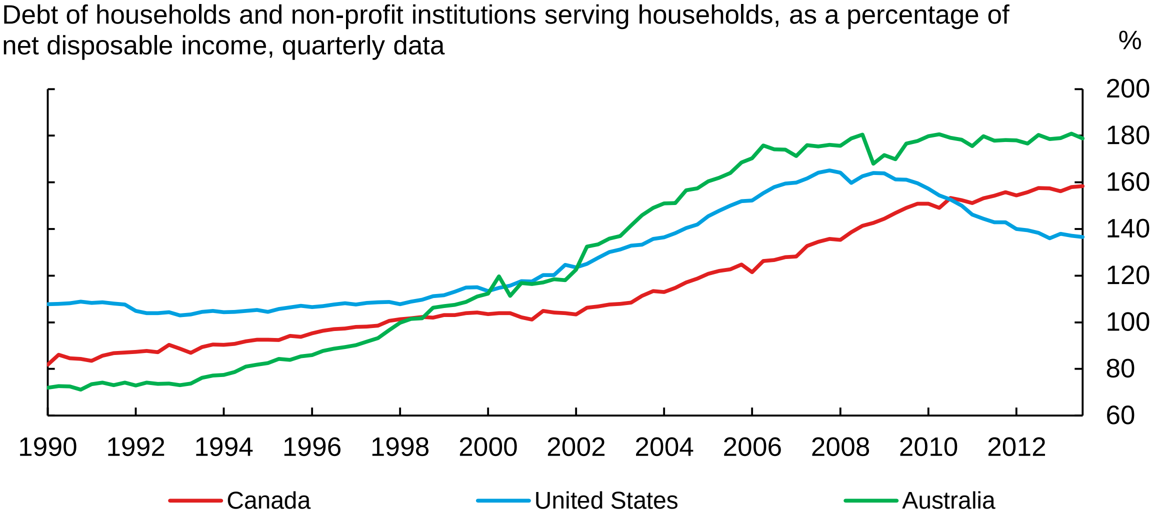
Charts 13 and **14** provide some international comparisons for two series that have attracted particular attention from international organizations (as well as

The Economist magazine). These are the ratio of household-debt-to-disposable income and the ratio of average housing prices to disposable income. Needless to say, they have not gone unnoticed by the Bank of Canada either. The Bank has identified household debt and stretched housing evaluations as the most important domestic risks to financial stability in the country.

It is important to stress that the figures in these charts represent national averages and vary across regions and types of accommodation. In some areas, they are much lower and in others, such as Vancouver and Victoria, they are much higher.

Chart 13: The ratio of household-debt-to-disposable income has continued to rise in Canada

Debt of households and non-profit institutions serving households, as a percentage of net disposable income, quarterly data

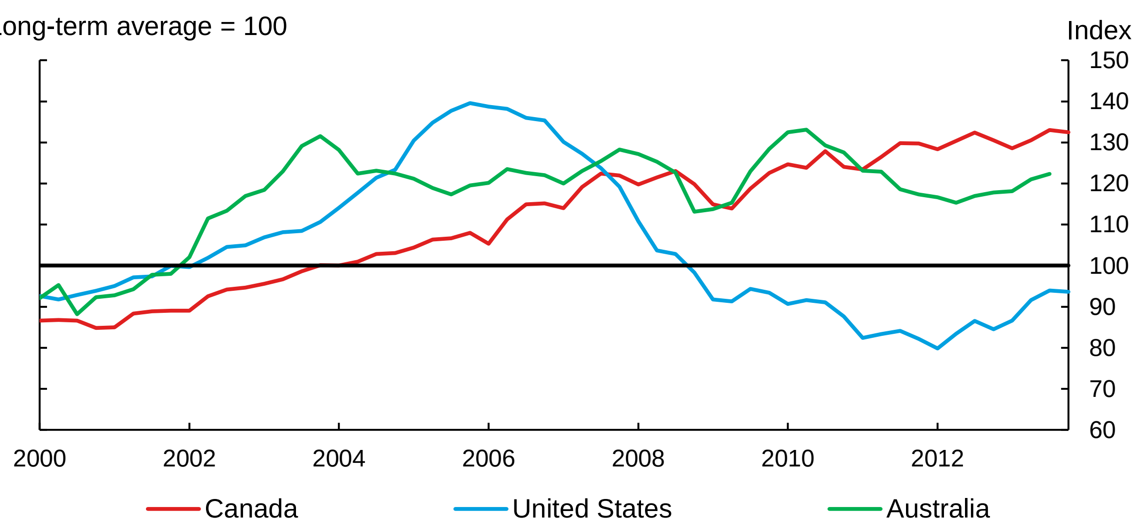


Sources: Statistics Canada, U.S. Federal Reserve, and Australian Bureau of Statistics

Last observation: 2013Q3

Chart 14: House prices in Canada have also continued to rise

Long-term average = 100



Note: Long-term average calculated from 1986Q2 to 2013Q3
Sources: Teranet-National Bank, CoreLogic, U.S. Bureau of Labor Statistics, and Australian Bureau of Statistics

Last observations: 2013Q4 (Canada & United States); 2013Q3 (Australia)

Although countries such as the United States and the United Kingdom have experienced sharp and painful corrections at comparable debt and price levels, leading to much more serious economic and financial consequences, it would be a mistake to assume that a similar outcome is therefore inevitable in Canada.

The Bank's base-case projection sees household debt, housing prices and housing starts levelling off and then gradually declining (in real terms, in the case of housing prices): in other words, achieving a soft landing. Recent data, such as decelerating monthly price increases for existing homes, a declining number of housing starts and historically low rates of household credit growth, all support this view and indicate that the situation is stabilizing, although the risks remain elevated.

International evidence also provides some support for this more benign scenario. Countries such as Australia have managed a soft landing and the preconditions for this, one could argue, are even more favourable in Canada. Higher mortgage underwriting standards, higher home equity margins, historically low debt-servicing costs, a more resilient banking sector and a number of pre-emptive macro-prudential measures that have been undertaken, in the form of tighter mortgage insurance and mortgage-lending standards, all work in this direction. Indeed, credit quality in Canada has been increasing even as credit continues to expand.

In this instance, the international perspective illuminates the downside and the upside. It highlights the risks that might be realized if the situation is not well managed, but it also provides evidence that a more positive outcome is possible—and indeed more likely. Close monitoring is nevertheless required to help ensure that this cautionary tale does not become a reality.

Conclusion

The global economy and the experiences of other countries provide a sort of natural experiment through which we can better assess economic developments in Canada. In many cases, the economic cycles of other countries are either moving in step with ours or have preceded them. Often, this will be because events elsewhere are shaping events in Canada; at other times it may be mere happenstance or the result of some more general force hitting us and others in a synchronous manner.

An international perspective can provide both understanding and policy insights. While it is important to interpret with caution what you see through the international lens, we have seen how it can help us resolve domestic economic puzzles and guide policy. With regard to inflation, fixed investment, exports and the household sector, it has also pointed the way to more positive outcomes and supported the base-case projections of the Bank. The international perspective deepens our understanding of how the Canadian economy works and gives us greater confidence in how our policy actions influence the ultimate outcomes.

Economic developments in Canada are not predetermined by events outside our borders. Domestic factors are important and we are ultimately the masters of our own destiny. The international perspective simply allows us to conduct our affairs in a more informed way, and improves the odds of a favourable outcome.

ENDNOTES

---

[1] Since 1995, the target has been to achieve an annual rate of total inflation of 2 per cent—the midpoint of a control range of 1 to 3 per cent—as measured by the consumer price index (CPI). The target is reviewed jointly with the federal government approximately every five years, and was last renewed in 2011. See Bank of Canada, "*Renewal of the Inflation-Control Target: Background Information—November 2011*."

[2] In its January policy statement, the Bank noted that "Inflation in Canada has moved further below the 2 per cent target, owing largely to significant excess supply in the economy and heightened competition in the retail sector. The path for inflation is now expected to be lower than previously anticipated for most of the projection period. The Bank expects inflation to return to the 2 per cent target in about two years, as the effects of retail competition dissipate and excess capacity is absorbed." (*Monetary Policy Report Summary*, January 2014.)

And in its March 5 interest rate announcement, the Bank said that "with inflation expected to be well below target for some time, the downside risks to inflation remain important."

[3] J. Murray, "Monetary Policy Decision Making at the Bank of Canada," *Bank of Canada Review* (Autumn 2013): 1-9.

[4] The Bank's main measure of core inflation is CPIX, which strips out from total inflation eight of the most volatile components of the consumer price index as well as the impact of changes in indirect tax on the remaining components.

[5] S. Baker, N. Bloom and S. J. Davis, "Uncertainty and the Economy," *Policy Review* 175 (2012): 3-13.

[6] The foreign activity measure is a trade-weighted index that aggregates the various sources of foreign demand, such as U.S. housing or fixed investment, and weights them according to their importance for Canadian exports.

[7] Of course, this does not preclude the existence of an indirect linkage between Canadian and European trade that might explain the weakness.