



BANK OF CANADA
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Ottawa, Ontario
24 September 2014**

Are We There Yet? The United States and Canada After the Global Financial Crisis

Introduction

It is a pleasure to be here at Carleton University.

It has been a long time since I was a student here, but I still get caught up in the back-to-school feeling of September. It's a time of fresh starts and renewed energy.

Today I would like to talk about the economies of the United States and Canada and how our economic ties are evolving as the recovery from the financial crisis of 2008-09 continues. I will discuss the impact on Canada of the Federal Reserve's unconventional monetary policies, and how Canada will be affected as these policies are gradually brought back to normal. While there are risks associated with this process, the Bank of Canada sees it as a positive sign that the U.S. economy is experiencing its own fresh start and gaining renewed energy.

Ties that Bind ... Sort of

Let me start with the ties between the United States and Canada. We are more than neighbours; perhaps we are more like fourth-year roommates. Economically, we need each other and have strong links. Over the years, we've been through good times and bad. We live comfortably together, provided that we respect each other's space.

On the whole, having our fortunes linked with those of the United States works in Canada's favour. Our businesses can take advantage of the opportunities of a much larger market. That means more jobs in Canada.

But, over the past several years, we have also been reminded that these strong ties expose us to adverse forces in times of stress. The old cliché is that “when the U.S. sneezes, Canada catches a cold.” There is an element of truth to that adage, but it only goes so far. Our economies do not move perfectly in sync, partly because they are structurally different: most obviously, ours is much more reliant on natural resources. And despite the strong influence of the United States, as economic policy-makers in Canada, we have plenty of scope to follow a different path.

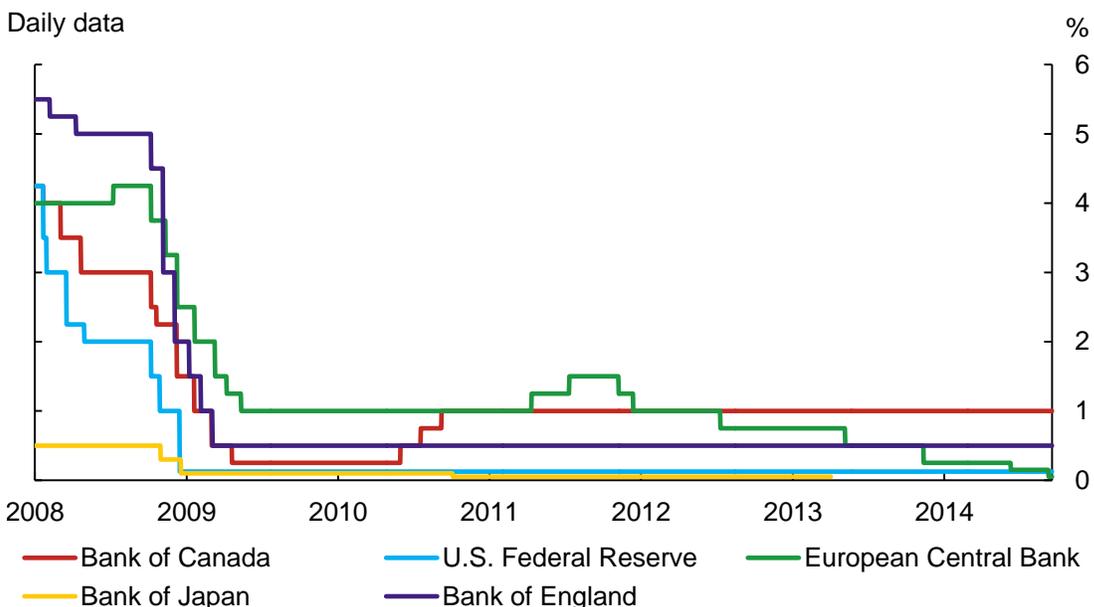
To explore these ties—particularly as they relate to my own field, monetary policy—let’s take a closer look at the financial crisis of 2008-09, the subsequent worldwide recession and the bumpy recovery. First, I’ll talk briefly about how Canada’s experience through that period has been similar to, yet different from, that of the United States. Then I’ll elaborate on where we are now, the challenges facing policy-makers in the United States, and what they mean for Canada.

Tales of a Global Recession

The financial crisis, which started with an overheated and precariously financed U.S. housing market, did not just affect Canada—it triggered a worldwide recession. In 2008, the dramatic failure of Lehman Brothers was effective, if nothing else, in concentrating minds: the world looked into the abyss and took notice.

In a historic display of consensus, the G-7 agreed to take whatever steps were required to stem the crisis. They lowered policy interest rates sharply (**Chart 1**) and in a coordinated manner; they flooded the financial system with liquidity to quell the panic; and they stood behind systemically important financial institutions.

Chart 1: Target interest rates were lowered sharply



Sources: Bank of Canada, U.S. Federal Reserve, Bank of England, European Central Bank, Bank of Japan, and Bank of Canada calculations

Last observation: 18 September 2014

These aggressive and coordinated policy actions prevented a financial and economic collapse that could have rivalled the Great Depression. Nonetheless, they did not prevent a severe and protracted global recession, which led to a period of weak and uneven global growth that continues to the present day.

Through the crisis and beyond, the Federal Reserve acted aggressively and unconventionally—first to stem the crisis and, later on, to support the recovery. Like other central banks, the Fed began by boldly lowering its standard monetary policy instrument, the federal funds rate, as low as it could go. With policy interest rates at their lower bound, the Federal Reserve also went to unusual lengths in providing forward guidance—communicating how long those rates would be likely to stay at their current level and, more recently, the factors that they would take into account in deciding when to start raising them.

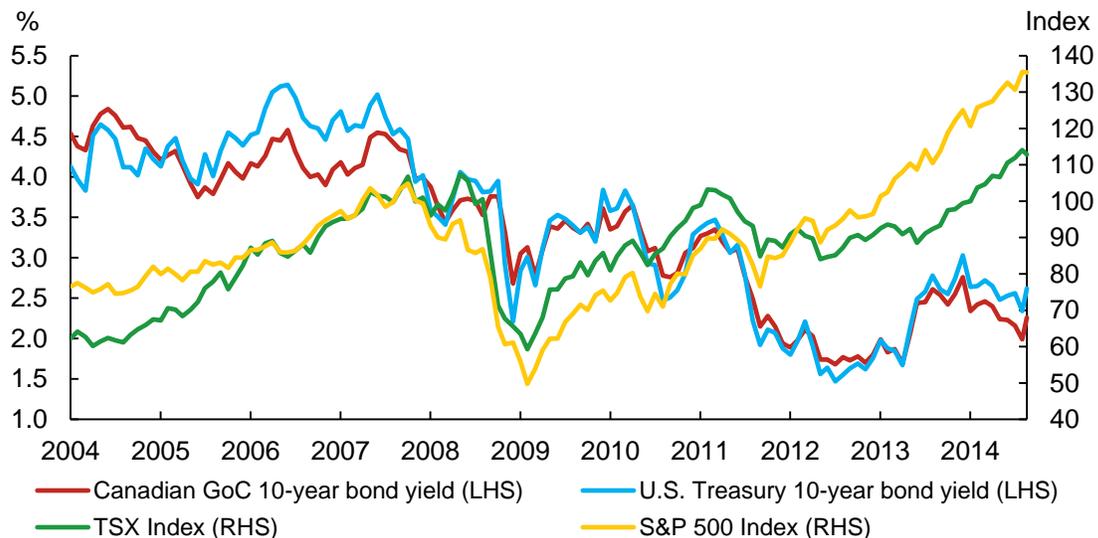
The Fed also innovated by introducing large-scale asset purchases (LSAPs), best known as quantitative easing, or QE. QE provides an injection of liquidity into a stalled economy through the central bank’s purchases of financial assets such as government bonds and mortgage-backed securities.

These operations have had pervasive effects on financial markets—not only in the United States but globally. They work through a variety of channels, including by pushing down long-term interest rates and the external value of the U.S. dollar and pushing up the prices of risky financial assets such as equities (**Chart 2**).

As a related effect, these operations by the Federal Reserve—together with the unconventional policies of central banks of other major economies—have pushed the volatility of financial assets down to near historically low levels (**Chart 3**). The resulting exceptionally buoyant financial conditions suggest that risk and vulnerability have increased in the financial system. But, during this period, returning the United States to sustained economic growth has been of paramount importance.

Chart 2: Falling bond yields and rising equity prices

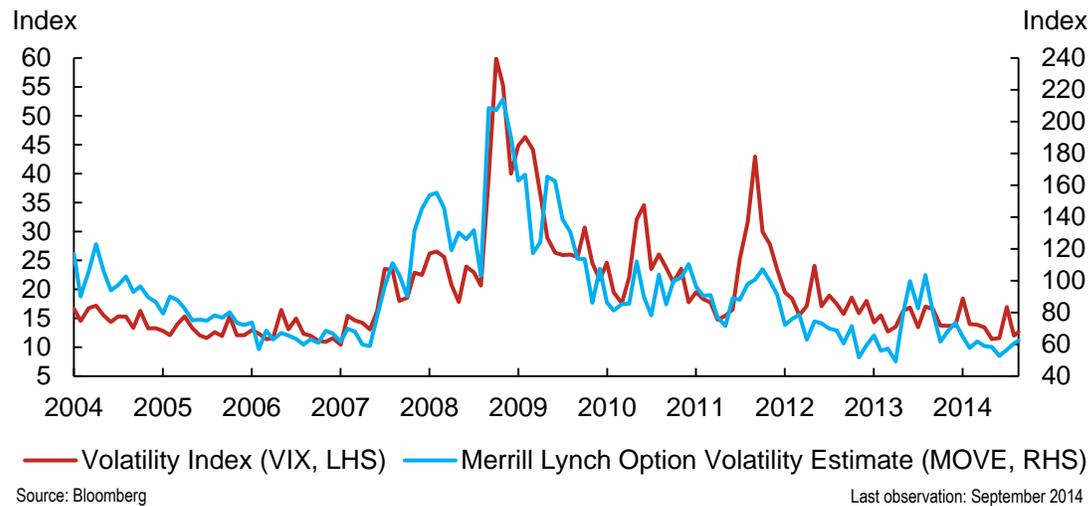
TSX and S&P 500 - Index 2007 = 100, monthly data



Source: Bloomberg

Last observation: September 2014

Chart 3: Financial market volatility measures near historic lows



While there was some concern that QE could have resulted in runaway inflation, that hasn't happened. In fact, the U.S. economy remained weak and inflation mainly below the Federal Reserve's target. That's because QE was being carried out in the context of the widespread private sector deleveraging after the financial crisis; and, despite the unprecedented scale of the operations, it was still not enough to break the economy out of its post-crisis funk.

Canada: Innocent Bystander?

Here in Canada, we didn't have a homegrown financial crash. While the Bank of Canada acted promptly and aggressively to provide liquidity to keep financial markets functioning, no banks had to be rescued and house prices didn't plunge. This is not to say we were lily pure. In fact, in 2007, a specialized Canadian market collapsed—the market for non-bank-sponsored asset-backed commercial paper (ABCP). It was only through timely and forceful action by the public and private sectors that this situation was resolved without generating wider fallout.

Nevertheless, the recession in Canada was painful. This was mainly because our exports collapsed. It's not just that about three-quarters of our exports go to the United States, but also that they are linked to sectors of the U.S. economy, such as housing and business investment, that fared particularly badly in the recession.

To get us through this period of very weak exports, we also relied on stimulative monetary policy. Like the United States and other advanced economies, we lowered rates to their "effective lower bound"—in our case, 1/4 per cent. Unlike the United States, we did not need QE, although we did provide forward guidance for our policy rate, itself a form of unconventional monetary policy, for the year following April 2009. Our financial system was more robust, so easy monetary policy was transmitted into expanding credit for Canadian households and companies. In contrast with the United States, we had a buoyant, albeit uneven, housing market through the recession and beyond.

Another important factor is that natural resource prices remained at elevated levels, so our resource industries recovered quickly. These prices were supported by the strong growth in China and other emerging-market economies, which slowed down with the global recession but quickly picked up again. The resource economy powered ahead, boosting disposable incomes, employment, engineering investment and government revenues.

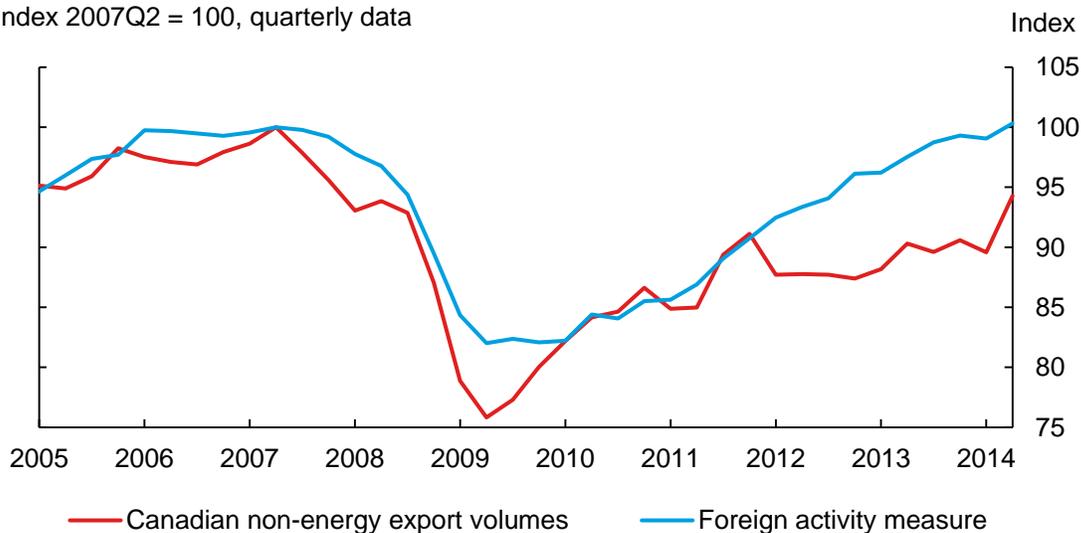
Canada bounced back quickly. By late 2010, we had passed the pre-crisis peak in GDP and employment—we were out of the recovery and into the expansion. At the Bank of Canada, we saw a need to get interest rates off the floor and raised them in a series of steps to 1 per cent.

But then we were in for a round of disappointments and challenges of our own. As Canada's recovery unfolded, our economy became increasingly unbalanced. Our non-energy exports, after picking up quickly, stalled well below their pre-recession level (**Chart 4**). Economic growth became increasingly reliant on building more and more homes, mortgaged at rock-bottom interest rates and driving up the indebtedness of Canadians to unprecedented levels (**Chart 5**). That source of growth was increasingly tapped out. And it built up vulnerabilities in our financial system, which could spell trouble down the road.

Another disappointment was that, last year, even as the U.S. economy began to strengthen, Canadian non-energy exports did not pick up as expected. Why not? This is a puzzle we are much closer to understanding—but our understanding is still imperfect. I won't dwell on this topic, as my colleagues have already said a lot about our weak export sector.¹ Suffice to say that weak exports have meant that Canada has had to rely on exceptional monetary policy stimulus for even longer than we expected. Our policy interest rate has stayed at 1 per cent since 2010.

Chart 4: Canadian non-energy exports stalled

Index 2007Q2 = 100, quarterly data

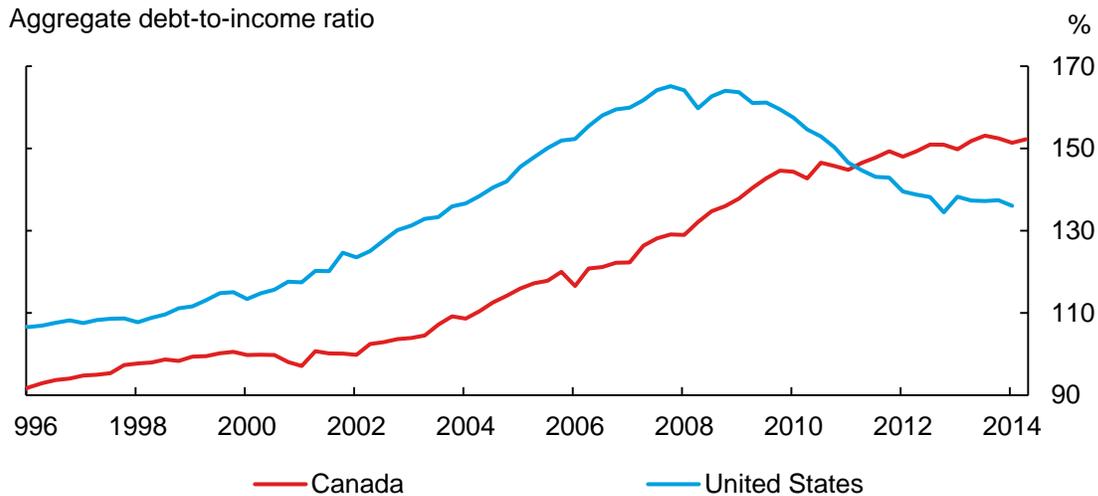


Sources: Statistics Canada, Bank of Canada

Last observation: 2014Q2

¹ S. Poloz, "Float of the Loonie," Speech delivered to the Société de développement économique de Drummondville in Drummondville, Quebec, on 16 September 2014.

Chart 5: Canadians now more indebted than Americans



Sources: Statistics Canada (Canadian household credit market debt to disposable income ratio adjusted for U.S. concepts and definitions) and U.S. Federal Reserve

Last observations: Canada, 2014Q2; United States, 2014Q1

What effects did the Federal Reserve's unconventional monetary policies have on Canada during this period? Our analysis indicates that, for Canada, their net effect has been positive. The Fed's policies have pushed down our market interest rates and, by promoting U.S. growth, have added to the demand for our exports. On the downside, these policies may have been one of the factors putting upward pressure on the Canadian dollar. But, on balance, the effects have been positive for Canada.

Morning in America?

So where are we now, in this long process of getting back to sustained economic growth?

The U.S. economy is in expansion, with the private sector taking the lead.

The headwinds that came from deleveraging—consumers whittling away at heavy debt loads—are abating and the net worth of those consumers has improved markedly (**Chart 6**). And the process of fiscal consolidation—bringing the federal budget deficit down to a more sustainable level—is largely complete (**Chart 7**).

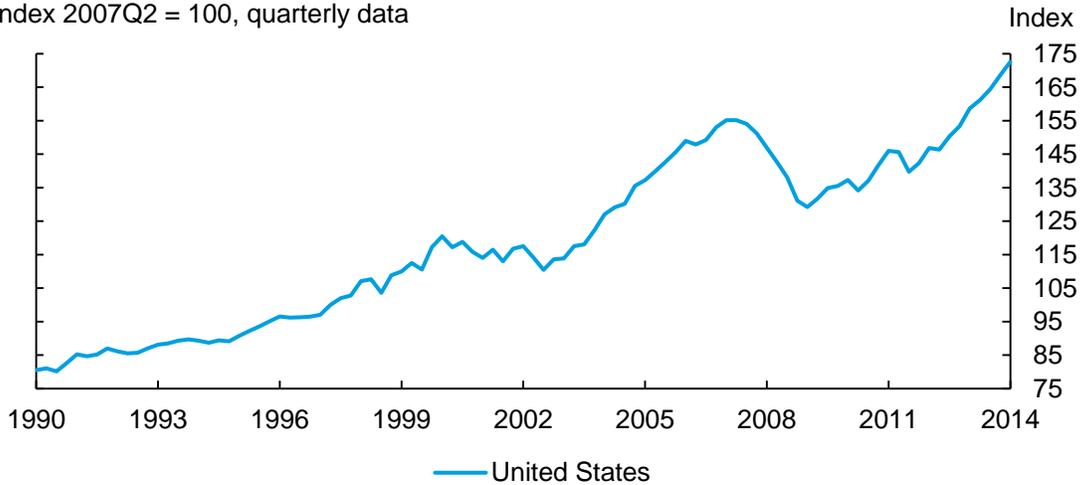
But growth has remained fairly modest. It's not quite clear why. Perhaps uncertainty about demand is still holding back business decisions and investment. Given the rocky road of the last few years, this is to be expected.

While U.S. housing markets are reviving, they are following an uneven and uncertain path, and there is a lot of room for improvement. Home construction is well below its pre-recession level, and the excess housing stock has largely been depleted (**Chart 8**).

Likewise, there is room for improvement in labour markets, which are a long way from normal.

Chart 6: Household net-worth to GDP ratio in the U.S. has risen markedly

Index 2007Q2 = 100, quarterly data

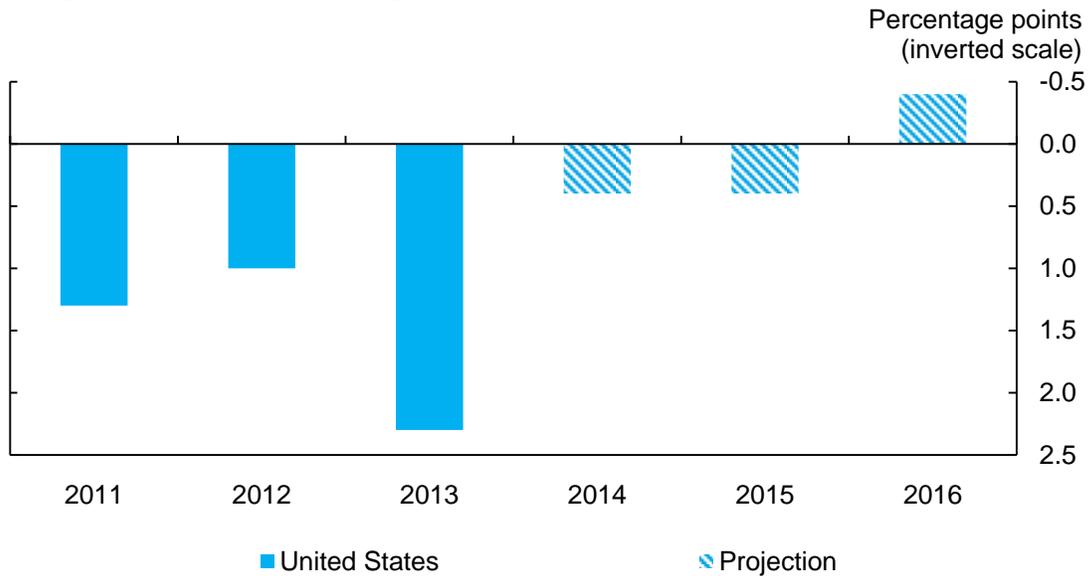


Sources: U.S. Bureau of Economic Analysis, U.S. Federal Reserve and Bank of Canada calculations

Last observation: 2014Q2

Chart 7: Current U.S. policies suggest significantly less fiscal drag over the projection horizon

Change in cyclically adjusted budget balance (as a share of potential GDP)



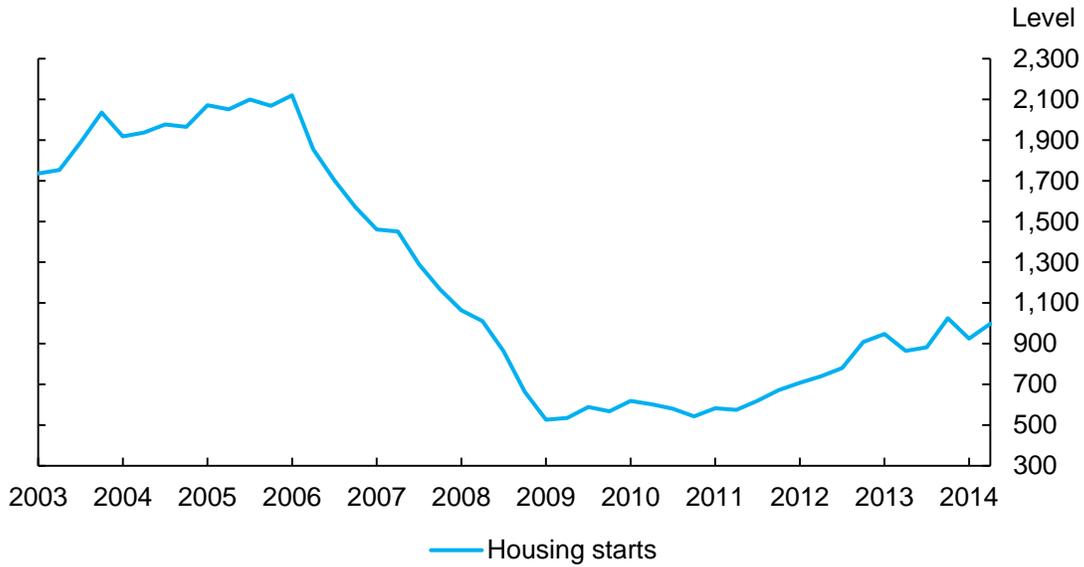
Source: International Monetary Fund, *World Economic Outlook* (April 2014)

On average, about 200,000 net new jobs were created each month during the past three years. Unemployment, which spiked during the recession, has fallen by about 4 percentage points since its peak.

How does Canada compare?

Since Canada experienced a shorter recession, our labour market conditions did not deteriorate as much, and were also faster to recover. For instance, by January 2011, Canada had recovered the number of jobs it lost during the

Chart 8: U.S. housing market is taking a while to revive



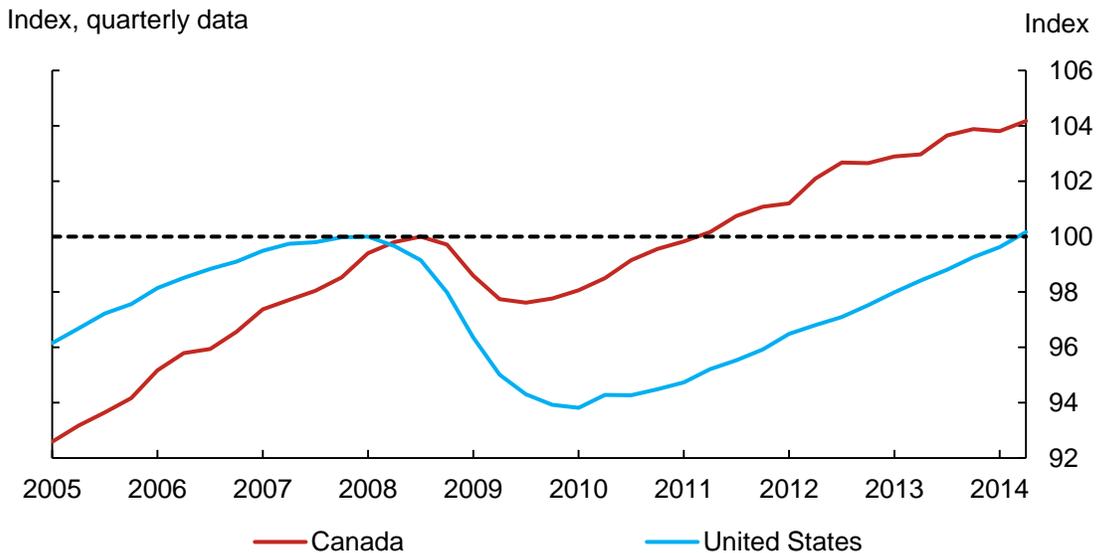
Source: U.S. Bureau of Economic Analysis

Last observation: 2014Q2

recession—whereas the United States only reached that point in May of this year (**Chart 9**). But since 2011, Canada has been creating new jobs at a much slower pace than has the United States. Similarly, our unemployment rate did not rise as much during the recession, but has been coming down more slowly—and, if measured in the same way, is now at about the same level as it is in the United States.

In both countries, the unemployment rate does not fully capture the labour market slack. In both the United States and Canada, there are still elevated

Chart 9: Employment in the U.S. only recently regained its previous peak



Note: Canada 2008Q3 = 100, United States 2008Q1 = 100

Sources: Establishment Survey, Statistics Canada; Establishment Survey, U.S. Bureau of Labor Statistics

Last observation: 2014Q2

levels of long-term unemployment and involuntary part-time employment, while wage gains continue to be moderate relative to historical norms (**Chart 10**). And here, as in the United States, young people are having a hard time finding jobs, and many have dropped out of the workforce. Our comprehensive measure of labour market slack has shown less slack than in the United States, but the gap has been narrowing (**Chart 11**).

In all, while the U.S. economy is improving, there have been bumps in the road, and there will be more as the expansion continues.

Chart 10: Shares of long-term unemployed and involuntary part-timers are elevated

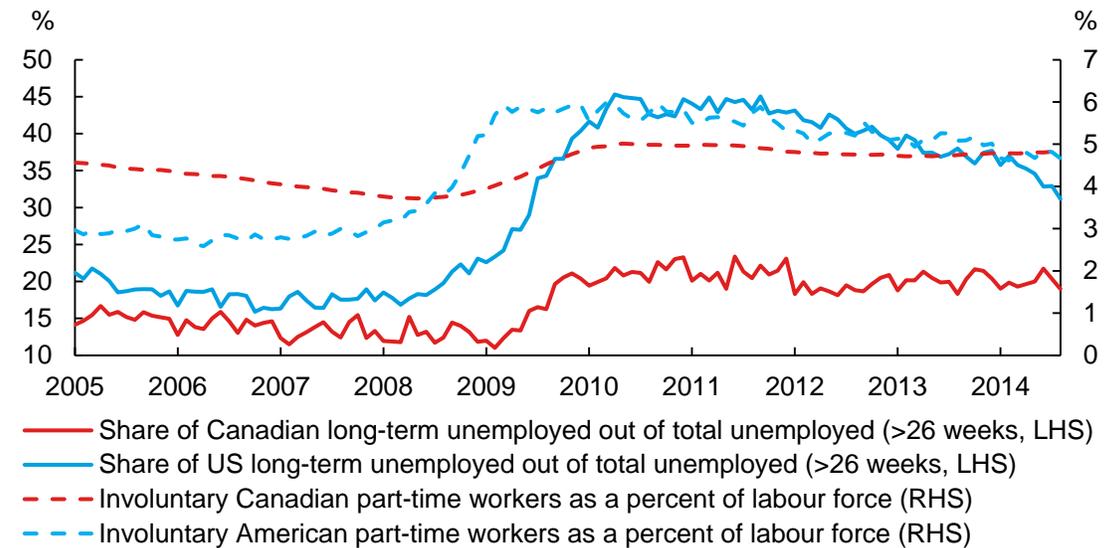
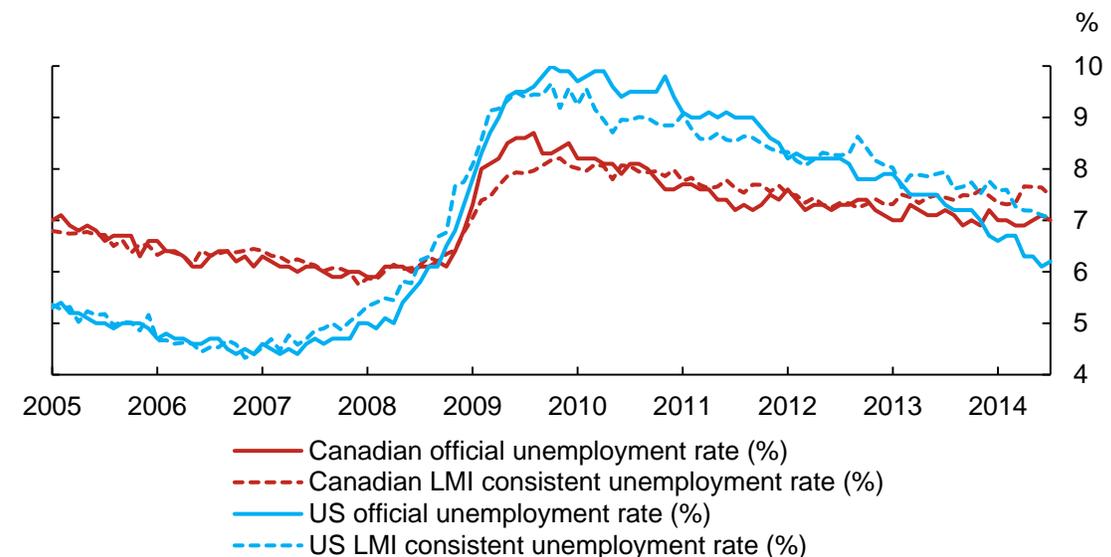


Chart 11: There's more labour market slack than the unemployment rate suggests in Canada and U.S.



What Is the Fed Doing?

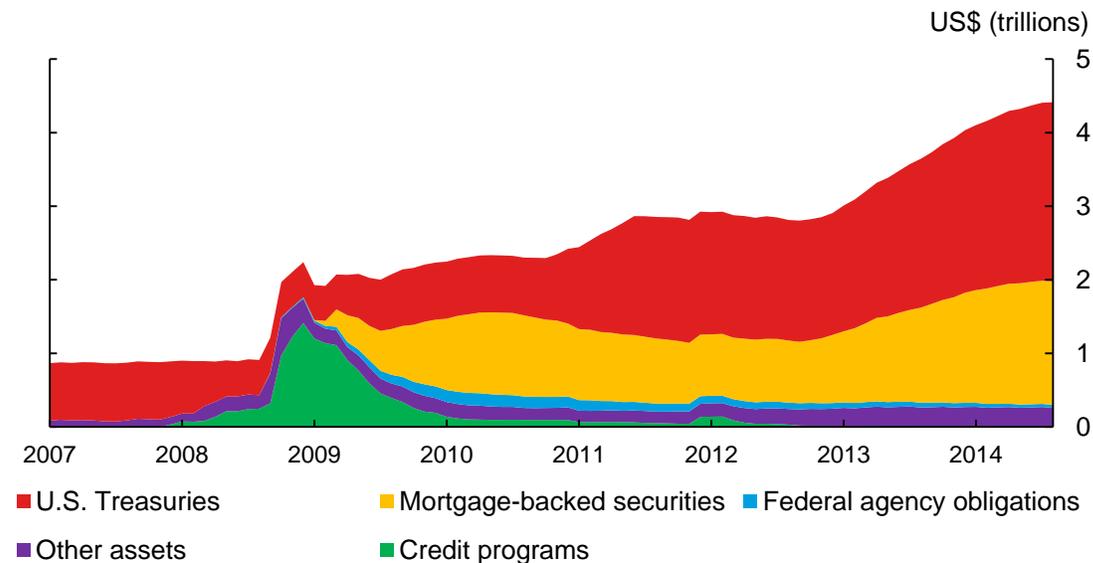
It is in this context that the Federal Reserve has been winding down its QE purchases and has signalled its plan to return gradually to a more normal monetary policy stance, starting sometime next year. The precise timing and pace of that exit will depend on how the economy is performing. Like most decisions, this involves a balancing of risks. Tightening monetary policy too early could plunge the economy back into recession. Moving too late could let inflation take off and require more tightening to get it back under control. It could also result in bigger financial imbalances which, later on, if they unwind, could throw inflation into another downdraft.

A formal difference between the Federal Reserve and the Bank of Canada is the Fed's "dual mandate" to promote the goals of maximum employment and stable prices. This is in contrast to the Bank of Canada's monetary policy framework: a target of 2 per cent inflation. But this contrast between our inflation target and the Fed's dual mandate is not as sharp as it seems. When inflation expectations are well anchored, bringing inflation sustainably to the target depends mainly on bringing the economy to its potential—in other words, closing the output gap. In assessing the output gap, conditions in the labour market are one of the main things we look at.

Last week, the Fed reconfirmed that it will likely end its QE program at its next meeting in October. This means that the Fed no longer expects to be purchasing additional financial assets under that program, which it has been gradually tapering since last January.

The next challenge for the Fed is how to unwind the various other elements of unconventional monetary policy stimulus, which include ultra-low interest rates, a large volume of excess reserves in the financial system and a large Federal Reserve balance sheet (**Chart 12**). The composition of that balance sheet (e.g.,

Chart 12: Assets of the Federal Reserve System



Source: U.S. Federal Reserve

Last observation: August 2014

government bonds of different maturities, mortgage-backed securities) may also matter. When is it time to start to reverse these policies? What are the right pace and sequence for each element?

A key step in normalizing policy will be to start increasing the target for the federal funds rate, which is currently still in a range of 0 to 1/4 per cent. This can be accomplished, in part, by gradually raising the interest rate the Fed pays on excess reserves.

The Fed will also remove excess reserves from the financial system, in order to control short-term interest rates. They have introduced and test-driven an overnight reverse repo facility that they will use for that purpose.

Restoring the Federal Reserve's balance sheet to its normal size is a process that is likely to be accomplished over a longer period. It is important to note, however, that the size of its balance sheet will not hinder the Fed's ability to control the policy rate and liquidity in the economy. The framework they have outlined will limit the risk that large excess reserves could lead to excessive loan creation and a sharp increase in inflation.

Does this sound complicated? Yes—because it is complicated. But we have full confidence in our colleagues at the Federal Reserve to manage this process well.

How will the renormalization of monetary policy play out in the financial system—both in the United States and globally? Asset prices, risk spreads and volatility are at levels that reflect the abundant liquidity provided through unconventional monetary policies in the United States and some other countries, together with expectations that interest rates will be kept at very low levels for a long time. While the Federal Reserve will seek to guide the renormalization process so that markets readjust smoothly as monetary policy is brought back to normal, there is an important risk that there will be some bumps along the way.

What Will the Exit Mean for Canada?

On the whole, the Federal Reserve's planned exit from unconventional monetary policies is part of a good news story for Canada. It is a sign that a sustained U.S. expansion is well under way. A more sustained U.S. expansion—a stronger housing market and robust business investment—should help our non-energy exports, which remain below their pre-recession level. As the U.S. economy regains vigour, it should also contribute to improved business and consumer confidence in Canada.

However, from a policy-maker's perspective, the renormalization of U.S. monetary policy will act to tighten Canadian monetary and financial conditions. The same analysis indicating that QE had stimulative effects on Canada should also work in reverse: unwinding unconventional policies will tend to push up market interest rates in Canada and dampen the U.S. expansion. This effect would only be partly offset by the downward pressure the exit would put on the value of the Canadian dollar. In the event that the Fed's renormalization does not play out smoothly in financial markets, the impact on Canada could be significant.

So how will all of this influence what the Bank of Canada would do? You can probably already anticipate my answer: “It depends.”

The Bank of Canada’s goal is to achieve our 2 per cent target for inflation in a sustainable way, which requires that our economy run close to its full potential. We will need to assess the various countervailing effects in the context of Canadian economic and financial conditions more generally. Like the Fed, we will balance the risks of acting too soon and stifling burgeoning economic growth against the risks of acting too late and letting inflation overshoot and fuelling imbalances in our housing markets. But that balance of risks is likely to be different here than in the United States.

Thus, while monetary policy in the United States has an important impact in Canada, I want to stress that Canadian monetary policy is independent and can diverge from the Fed’s policies. In fact, our policy rate is already higher than the Fed’s as a result of the moves we made four years ago in response to the improving economic conditions at that time. Looking forward, as always, our rate decisions will depend on the state of the Canadian economy. Preserving the value of money by keeping inflation low, stable and predictable is our mandate.

Are We There Yet?

Let me conclude. The financial crisis of 2008-09 reminded us how tightly linked the U.S. and Canadian economies are—for better or for worse.

And the economic recovery has shown us that healing after a financial crisis is slow and often painful.

The steps taken by the U.S. Federal Reserve, the central bank closest to the epicentre of the crisis, prevented the crisis and subsequent recession from being much worse. And they continue to support the U.S. and global economies through that long healing process.

The Fed’s unconventional monetary policies affected Canada through various channels, notably by pushing down market interest rates worldwide. By the same token, as Fed policy returns to normal—which is likely to be a different state than before the crisis—that will tighten financial conditions in Canada. But this will be happening against the backdrop of stronger economic growth.

It’s another step away from the dark days of the Great Recession and an affirmation that the hard work of economic reconstruction over the last six years is taking hold.