Stephen S Poloz: Riding the commodity cycle – resources and the Canadian economy

Remarks by Mr Stephen S Poloz, Governor of the Bank of Canada, to Calgary Economic Development, Calgary, Alberta, 21 September 2015.

*   *   *

I would like to thank Bahattin Buyuksahin, Brigitte Desroches, Kun Mo and Konrad Zmitrowicz for their help in preparing this speech.

Introduction

This isn't the first time that a governor of the Bank of Canada has come to Calgary to talk about commodities. I suspect it won't be the last. It's an obvious discussion topic here in Alberta, where resources make up more than a quarter of the economy. Of course, such riches aren't unique to Alberta. Natural resources have been a big economic story for this country since the time of European contact. Today, Canada is the only major exporter of natural resources among the G-7 nations. Oil is just one part of the story – we are also a major producer and exporter of coal and natural gas, base and precious metals, minerals such as potash, and agricultural and forest products.

Because Canada has been endowed with such a wide variety of resources, we've had to learn how to deal with large swings in their prices. I don't just mean the usual high degree of volatility common among many raw materials. I'm also referring to the long-term swings in prices that are often called "super cycles." What's important to remember is that these long-term swings are driven by the fundamental economic laws of supply and demand, as well as the continuous technological progress that can affect both output and consumption.

The pattern is familiar. A large and persistent increase in demand leads to sustained upward pressure on resource prices over a number of years. The higher prices act as an incentive to boost supply, and companies act by, for example, investing in new capacity and finding methods to increase efficiency. While high prices can certainly spur research and development, technological progress has been a constant theme in natural resource industries. Such advances uncover ways to raise output and lower production costs. And it's because of this progress that inflation-adjusted commodity prices have generally been trending lower for 200 years.

The investments that lead to increased output can take years, if not decades, to complete. But, over time, the higher output generated by those investments combines with stabilizing demand to bring about a period of downward pressure on prices. Faced with lower prices, companies may scale back investment and production. Ultimately, the lower prices will encourage demand, and the reduced investment will crimp future supply, leading to higher prices. And producers will ride the price cycle all over again.

Any economy that relies on natural resources will naturally be challenged by large movements in their prices. These shocks are more than just swings in national income; they also force businesses to make decisions about the way resources such as capital and labour are allocated. These decisions often lead to difficult adjustments, but they are necessary for maximizing our economy's potential.

While an abundance of raw materials may complicate the management of companies and the conduct of economic policy, it's far better for a country to have resources than not to have them. Even when prices are falling, as they have been recently, our endowment represents a store of value and a source of future riches.

What I'll do in the rest of my time today is talk about some of the global forces that have been driving recent swings in commodity prices and look at how they may evolve in the years to

come. Then, to emphasize just how uncertain the outlook can be, I'll talk about some alternative scenarios that could dramatically alter the future for producers. Finally, I'll revisit some of the lessons that policy-makers and business leaders can apply today and in the future.

Global forces at work

Let's take a look back at resource prices over the past 15 years or so. We saw a large and persistent increase in demand, sparked by rapid economic growth in emerging markets. In China, the world's most populous country, economic growth averaged about 10 per cent annually between 2001 and 2011, a period that included the global financial crisis.

Chinese growth has meant enormous demand and rising prices for many of Canada's resources, particularly coal and oil, as well as base metals such as copper, nickel and aluminum. As millions of people in emerging markets left rural areas for cities, demand increased for building materials such as the iron ore used in steel, and this supported prices. Although the financial crisis led to price declines, many raw materials rebounded sharply. By April 2011, the Bank of Canada's commodity price index had reached its post-crisis peak.

However, rapid growth tends to moderate as an expansion matures. Chinese economic growth has eased to an average of 7.5 per cent since 2012, as authorities have tried to engineer a more sustainable and domestically oriented expansion. Similarly, India, which saw annual GDP growth near 9 per cent from 2005 to 2010, has also moderated since 2012. While it's true that these cooling growth rates have had an impact on prices, we shouldn't forget that emerging markets are still an important source of demand. Indeed, since the start of the decade, the Chinese economy, now the world's second-largest, has more than doubled in size when measured in current dollars.

In terms of supply, we've also seen responses that are putting downward pressure on prices for metals and some energy goods. For example, the iron ore supply continues to expand despite lower prices, thanks to the impact of multi-year investments made when prices were higher. These investments led to expanded capacity in low-cost areas such as Australia and Brazil.

Now let me say a few words about oil prices. This topic is obviously of great importance here in Alberta because of its impact on employment and the overall economy. But it's also important for Canada as a whole, given the implications for national income and interprovincial trade, as well as the industry's sizable influence on business investment.

Why did oil prices fall so much? The main reason is that supply rose sharply, thanks primarily to technological advances in oil extraction everywhere. This includes the oil sands, tight oil and the Bakken deposits. Consider in particular the technological progress that enabled producers to tap tight oil reserves. Output from the United States alone, which essentially didn't exist before 2008, reached 4.2 million barrels per day last year. That increase is roughly equivalent to all the oil that Canada produces in a year.

Given the dramatic drop in prices over the past year, the Bank has spent a lot of time speaking with business leaders to try to gauge precisely how they will react. At the start of the year, oil companies were saying that they intended to cut investment by about 30 per cent. Prices didn't recover as much as was forecast at the time, so companies subsequently told us that they would cut their investment intentions by about 40 per cent. Currently, based on discussions I've had over the past couple of weeks, many firms are still revising their longer-term expectations for oil prices. The Bank will continue to assess what the impact may be on their investment spending.

What this means for the evolution of oil prices is very hard to say. The Bank's usual practice is to assume for our projection that oil prices will remain stable and use our economic models to test alternative scenarios. I know many companies do the same. But that can be risky:

because the vast majority of oil transactions are financial, rather than between producers and users, prices tend to be more volatile than the underlying fundamentals.

Before I move on, let me emphasize a point. Lower prices for base metals and oil today do not mean that long-term investments, which may take years to complete and last for decades, were somehow a mistake. Without those investments, we would never have been able to capitalize on the higher prices, which boosted Canada's aggregate income. What matters for a given investment is how prices evolve over the life of the project, which is impossible to know when long-term investment decisions must be made.

From the end of 2008 to the end of 2010, the price of copper tripled, while oil and nickel prices more than doubled. If you believe in market forces, these movements represented a clear signal to invest and expand output. Those who were able to recognize the opportunity, make adjustments and exploit the higher prices were rewarded, and the increased income brought important benefits to Canada's economy.

Alternative scenarios and the need for flexibility

Now let me spend some time talking about the future. The price cycle I've sketched out may appear to be fairly predictable. But history has repeatedly shown that new technologies can quickly upend assumptions about future demand and supply.

For example, back in the 1970s, there were predictions that the world would run out of copper by the end of the century. The people who made that forecast did not foresee that copper wire, long a staple of communications infrastructure, would be replaced by fibre-optic cable, with its glass threads made from silica. This technology helped reduce the demand for copper, in essence extending its supply.

Similarly, digital photography had a dramatic impact on the photo-processing industry. Twenty years ago, the idea that everyone would carry around telephones that were also good-quality cameras was ridiculous. People took pictures with cameras that were loaded with film and took the film to a developer. The processing consumed a lot of silver. Back then, if you didn't anticipate the emergence of digital photography, you might have expected this source of demand would continue indefinitely. Instead, according to the Washington-based Silver Institute, the use of silver in photography peaked in 1999 and has fallen by almost 80 per cent since.

It's these sorts of technological advances that make predictions about future demand and supply so difficult. But it's also these technological advances, combined with Canada's many gifts of natural resources, that will generate the opportunities to secure our future prosperity. Our goods will remain in demand; we will continue to have lumber for houses, metals for industrial production and oil for use in plastics – and it's hard to imagine that Canadian roads won't continue to need new asphalt repairs.

Further, it's important to remember that Canada's endowment is extremely diverse. While the cycles for base metals and oil have turned lower, there is still substantial demand that's supporting the prices of many agricultural goods. As I noted, with continued growth in emerging markets, their populations are becoming increasingly urbanized. In North America, 82 per cent of the population lives in urban areas. That compares with 55 per cent in China, and just 30 per cent in other emerging markets such as India.

This trend toward urbanization is likely to continue. With it will come growing demand for goods linked to household consumption – particularly agricultural products. Consider the hundreds of millions of people who are climbing the income scale in India and China. Their changing diet implies much more than just stronger demand for traditional protein sources. It also implies demand for inputs such as fertilizer, animal feed, fish feed, oilseeds and specialty crops such as lentils and chickpeas. Indeed, the latest traffic figures from Port Metro Vancouver show sharp growth in shipments of wheat and specialty crops, and solid gains in meat, poultry and potash.

Canada is particularly well placed to tap growing demand for fish and other seafood. Canadian seafood exports to China in the first half of the year grew by 11 per cent compared with the same period last year. To take just one example, 60,000 lobsters are flown from Halifax to Shanghai every week, aided by advances in shipping and production technology. Thanks in part to this demand, lobster prices have been rising sharply.

In terms of aquaculture, however, there appears to be considerable growth potential. While mussel farming output grew by about 35 per cent from 2009 to 2013, farmed salmon production plateaued over that period at about 100,000 tonnes a year. Canada has more coastline than any other country in the world. Yet the volume of our seafood output is dwarfed by countries such as Norway, which produces seven times as much as Canada does. I'll leave it to others to figure out how best to tap this potential resource. Rare earth minerals, the 17 elements used in high-tech products such as cell phones and hybrid vehicles, represent another potential source of growth for Canadians over time.

It's impossible to know with certainty where opportunities will emerge 30 years from now. What new technological advances lie just over the horizon? Consider, for example, the future of water desalination. Right now, the process of removing salt from sea water is too energy-intensive to be economically feasible on a large scale. But perhaps we are just one technological breakthrough away from solving this problem. Imagine the impact if the chronic droughts plaguing western North America and Australia could be eased by desalinated ocean water.

The point of this exercise is to emphasize just how uncertain the future is. Businesses, consumers, governments – we must all plan for the future based on the best information we have. At the same time, natural uncertainty requires us to be flexible to adapt to circumstances that can change rapidly.

In concrete terms, this means business leaders must be aware of the risks involved in resource production, manage those risks as best as they can, and be ready to react to market signals and seize opportunities. History has shown that the companies that are nimble are the ones that are best poised to thrive over time. Policy-makers can help in these efforts by encouraging economic flexibility. This means allowing the necessary adjustments to take place and not frustrating flows of investment or labour from one region to another. Canada's labour market showed impressive flexibility when oil prices were rising, as workers flocked to Alberta to fill demand. And, in our latest *Business Outlook Survey*, the Bank saw evidence of labour shortages easing in regions where some interprovincial workers are returning from the oil patch.

Policy lessons

Before I conclude, let me say a few words about how monetary policy fits into the picture. There are lessons that we can take from previous price cycles. The most important of these is the value of our monetary policy framework. We can't do much about resource price shocks. But our policy can help the economy adjust to them. In particular, our floating exchange rate helps absorb some of the impact of the price movements and sends signals that facilitate adjustments.

Think back to the previous decade. From 2002 to 2012, oil prices went from about US$25 per barrel to more than US$100 per barrel, leading to a jump in our national income. Over the same period, the Canadian dollar appreciated from a record low of around 62 cents U.S. to above parity, helping to reduce the inflationary risks that came with the stronger growth and increased income.

Similarly, over the past year, both oil prices and the Canadian dollar have fallen sharply. The floating currency is helping to reduce the disinflationary risks that have come with the cut in our national income. Further, allowing the currency to float frees the Bank of Canada to concentrate our single policy tool on our single target, which is inflation. If we tried to offset

these currency movements, we would end up frustrating the natural shifts in economic resources.

By focusing on our mandate to keep inflation low, stable and predictable, the Bank has built up credibility, and Canadians have well-anchored inflation expectations, even in the face of large price swings. For example, when we have seen big moves in energy costs, such as the price of gasoline, there has been little evidence that consumers began to adjust their overall inflation expectations, either upward or downward.

Why is this important? Since Canadians see our commitment to our target as credible, that makes it much easier for us to reach our mandated goal without needing big swings in output or interest rates. Those of you who can recall our experience with the oil price shock of the 1970s will remember the subsequent effort required to bring inflation under control. Without a credible target and with unanchored expectations, inflation soared. Extremely high interest rates were needed to get price increases back under control.

Another point to remember is that swings in commodity prices can affect the normal relationship between the total inflation rate and the core measure of inflation that we use as an operational guide. For example, total inflation is currently being pushed down by the impact of lower energy costs. In contrast, core inflation, which strips out the most volatile inflation components, is facing upward pressure because recent declines in the exchange rate are boosting the prices of imported goods. However, we expect these to be one-off effects, and, as such, we would look through them. As we noted in our July *Monetary Policy Report*, when all the temporary factors are stripped out, the underlying trend in inflation in Canada is in the range of 1.5 per cent to 1.7 per cent, below our target of 2 per cent.

Given these complications, the Bank is looking at how we measure core inflation as part of our regular review of our inflation-targeting regime. Next year, we will answer the question of whether the Bank should continue to focus on one pre-eminent measure of core inflation and, if so, whether our current core measure will remain in that role.

In our interest rate announcement earlier this month, the Bank noted that the resource sector is continuing to adjust to lower prices, and that these complex adjustments will take considerable time. Our inflation-targeting regime will help facilitate these adjustments. Canada has seen this movie before – we've managed it well in the past, and I'm confident we will continue to manage it well in the future.

Conclusion

It's time to conclude. As Albertans know well, it can be hard to ride the cycles in raw materials prices. But resource price fluctuations affect all countries, whether they are consumers or producers. Canada is fortunate to be both, and we shouldn't ignore the resources that we have been blessed with. Natural resources bring opportunities. Over the years, Canadians have used our endowment to build a prosperous economy. We will continue to do so. And rather than resist market forces, Canadians should heed the signals sent by price movements. We've adjusted to rising prices; we can adjust to falling ones. These adjustments are never easy. They are often difficult and painful for affected individuals and their families. But they are necessary.

For our part, the Bank of Canada will continue to promote low, stable and predictable inflation. Doing so is the best contribution we can make to helping promote both strong, steady economic growth and the flexibility needed to ease those adjustments and help our resource-rich country thrive.