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Making Sense of Markets

Introduction

Making sense of financial markets is supposed to be easy. Stock prices, bond yields and exchange rates are all expected to behave in line with economic fundamentals.

We know the reality is more complicated than that. Yes, financial markets react to new information—in fact, they usually overreact. Today’s overreaction becomes tomorrow’s retracement, and so on. It can be very difficult to reconcile high-frequency financial market action with slower-moving economic fundamentals.

Often this process of reconciliation is just a matter of time, since economic data arrive with a lag while financial markets live in the moment. But therein lies the essential problem: our view of today’s economic fundamentals is actually a forecast because the data have not arrived yet. If financial markets appear to diverge from those forecasted fundamentals, they may be telling us that our forecast is wrong. The fact that financial market prices are formed with the discipline that comes from putting real money on the line means that central bankers ignore them at their peril.

To illustrate the difficulty, consider some of the market action we have seen in 2018. Yield curves were on a flattening trend in the first half of the year, raising questions about whether they were pointing to slower economic growth ahead. At the same time, stock markets were on a steady march upward, which we would normally associate with a positive economic outlook. This fall, we have seen the reverse—higher yields and widespread stock market declines. While it may not always be possible to make sense of all this, the effort itself is generally worthwhile.

Today, I want to touch on some of the main points of our latest outlook, and offer some reconciliation of recent financial market action with that view.

Of course, there are always risks in trying to interpret what financial markets are saying. Markets are not monolithic—their prices represent the average of a diverse distribution of views. Moreover, markets evolve over time. Still, we glean

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what we can from markets and use the information to cross-validate the signs we see in the economy.

The economic outlook

Let us discuss the economic outlook briefly. The big picture is that the world has made considerable progress in shaking off the effects of the 2007–08 financial crisis. Some countries have made more progress than others, but, taken as a whole, the world economy is operating close to potential, and monetary policy has begun the process of normalization.

In our latest *Monetary Policy Report*, we noted that the global expansion, which had been quite synchronous across regions, has become less so recently. The US economy is now setting the pace among advanced economies, primarily due to the additional fiscal stimulus that has been applied. We forecast that global growth will moderate from about 3¾ per cent this year to 3½ per cent next year, with the US strength expected to ease back by 2020.

Of course, various trade actions—and the threat of more—have already begun to affect the global economy. The escalation of tariffs between the United States and China is of particular concern, weakening investment and the overall growth outlook, and putting downward pressure on various commodity prices.

A key implication of the divergence of growth between the United States and the rest of the world is an appreciating US dollar. This has led to strains for certain emerging economies, and we expect these to continue. Thus far, however, we have seen few signs of the strains becoming generalized across all emerging markets.

As for Canada, our forecast is a positive one. We project the economy will continue to operate close to its capacity limits, with annual growth around 2 per cent over the next couple of years. The successful conclusion of North American trade negotiations reduces a key source of uncertainty for the Canadian economy.

Meanwhile, we project that inflation will continue to move back toward the 2 per cent midpoint of our target range, after having peaked in the summer.

Messages from markets

Fixed-income markets

Now, let us look at what fixed-income markets are saying about all this. These are the markets most directly relevant to central banks because bond yields can tell us what investors think about the prospects for both growth and inflation.

In particular, the slope of the yield curve is often seen as a reliable predictor of economic growth. Specifically, when the curve inverts—when short-term bond yields move higher than long-term yields—this is often seen as a sign that a recession is imminent.

Of course, no indicator is ever perfect. To adapt the old quip, the yield curve has inverted before 10 of the last 6 Canadian recessions. But it is important to recognize that a number of factors have held down long-term yields in recent

years. That means short-term yields do not have to rise as far as in the past to flatten or invert the yield curve.

One of these factors is that the neutral interest rate has been drifting downward for about 15 years, contributing to a long-term trend toward lower bond yields. A second factor is that years of successful inflation targeting by central banks have reduced inflation risk steadily. A third factor has been the buying of bonds by central banks as part of efforts to mitigate the effects of the global financial crisis.

In light of these factors, it seems that the more important signal coming from the bond market is not a flattening of the yield curve, but the reversal in the long-standing downward trend in long-term yields. Indeed, since the start of the year, the US 5-year yield has risen by more than three-quarters of a per cent, to over 3 per cent, while the 10-year yield has climbed by a similar amount, to about 3.1 per cent.

This trend reversal is consistent with the view that a decade of massive monetary policy intervention is finally taking the risk of deflation off the table. Higher bond yields may reflect that the market is becoming two-sided again, as central banks shift interest rate risk back out into the marketplace. Investors can no longer expect yields to be suppressed by extraordinary monetary policies.

Within this big-picture theme, some important sub-themes are emerging. One is a worrying tendency among some emerging markets to encroach on the independence of their central banks. Another is the consequences for the corporate bond market. Corporate yields and spreads have for some time been compressed by the post-crisis provision of central bank liquidity, and the trend shift is leading to modestly wider spreads now, as we would expect.

Importantly, though, these effects are not uniform across the market—debt issued by companies most exposed to international trade actions is underperforming other sectors. Specifically, since the start of the year, the spread on debt issued by basic materials and industrial companies has widened two to three times as much as that on the debt of technology companies. These differences in spreads can be seen globally and tell us that investors see growing risks for these firms in light of international trade actions already taken or in prospect.

I mentioned that most countries are not as far advanced in post-crisis recovery as the United States. However, because bond markets are so globalized, movements in US yields will be reflected in bond markets elsewhere, particularly in countries where central bank bond purchases are not distorting yields. Canada is a case in point. Traditionally, Canadian 5-year yields will import about two-thirds of any movement in US 5-year yields. This can affect Canadian mortgage rates even with an unchanged stance of Canadian monetary policy.

Equity markets

Time now to turn to stock markets. Recent action has some commentators questioning whether many economic forecasts, including ours, are too rosy. As I mentioned at the beginning, such a divergence between the economic outlook and market action needs to be taken seriously.

Part of the reconciliation must come from taking a longer-term perspective on equity market performance. True, the S&P 500 Index has fallen about 7 per cent from its highest level earlier this year. But even with that decline, the index is still about 35 per cent higher than it was three years ago.

Several factors drove this performance over the past three years. Part of it reflected the strong outlook for the US economy and, by extension, company earnings. Part of it was due to a small number of technology companies—the so-called FAANG (Facebook, Apple, Amazon, Netflix and Google) stocks, as investors saw the potential for tremendous earnings growth. Even though the total assets of these companies equal about 1 per cent of US economic output, their total market capitalization is almost 10 per cent of the entire US equity market. Over the past three years, the increases in these companies' stock prices were responsible for 17 per cent of the rise in the S&P 500 Index, after accounting for reinvested dividends.

As we saw with the bond market, the era of extraordinary central bank liquidity helped make stock markets more one-sided, naturally suppressing their volatility. Investors could borrow money cheaply and take leveraged positions in stocks. Now, this liquidity is becoming more expensive, so it is only natural to expect more volatility in stock prices as this support is removed.

But there is a more fundamental point to make if, as I suggested, the long-term downward trend in bond yields is over. If investors are coming around to the view that expected earnings, as good as they are, need to be discounted by higher interest rates, it naturally lowers the price they are willing to pay for a given stock. Qualitatively, then, it is logical to expect stock prices to retrace some of their earlier increases and to exhibit a more normal level of volatility.

The present situation is made even more complex by the overlay of international trade actions. When we break down recent stock performance by sector, we see a message similar to the one coming from corporate bonds. The 2 per cent rise in the S&P 500 Index for the year to date masks some very divergent performances. The companies most exposed to international trade actions have done the worst. Materials companies are down 12 per cent on the year, while industrials are down 7 per cent. Technology companies, in contrast, have risen 8 per cent over the same period. The same basic pattern holds in Canadian stock markets.

The main Canadian stock index has declined by 7 per cent this year because the TSX is so heavily weighted with companies that rely on trade. It is evident, therefore, that rising interest rates can explain only part of what we have observed in stock markets—trade actions are playing a central role.

Commodity markets

Concerns about the impact of ongoing international trade actions by the United States, and China's retaliation, can also be seen in commodity markets.

One common interpretation of commodity markets is that rising prices signal future global economic strength, and a slump—along the lines of what we are seeing in many commodity markets—signals weakness in demand. But a nuanced look at certain markets gives a more focused interpretation.

Of course, oil is the global economy's most important commodity and Canada's largest export. However, movements in the oil market tend to reflect more the impact of unexpected changes in supply or demand than shifts in global economic trends. And, in the case of Western Canadian Select (WCS) crude, a shortage of pipeline capacity has been weighing on prices. The WCS discount has been especially large of late, due to maintenance shutdowns of some key US refineries, which will be temporary. Although most of Canada's exports move by pipeline and see relatively modest price discounts, the newest barrels are discounted the most, and this is suppressing capacity investment in the sector.

Looking beyond oil, we have seen particular weakness in base metals. A generic index of base metals prices has fallen 13 per cent since the start of the year. This reflects, in part, concern about the prospects for China's growth amid ongoing trade disputes. We are also seeing investors taking fewer speculative positions on copper—a commodity closely associated with prospects for Chinese growth.

Another contributor to the slump in commodity prices is the fact that they are generally priced in US dollars. So, a period of US-dollar strength relative to other currencies can lead to lower prices for those commodities, all else being equal.

Foreign exchange markets

This brings me to currency markets, which can give another perspective on prospects for economic growth.

Many factors affect exchange rates on any given day. Still, at the root, exchange rates signal expectations for the relative strength of economies and differences in interest rates. So, it is not a surprise that the US dollar has outperformed virtually every major currency since the start of the year. This reflects both the prospects for continued US growth and policy-rate increases by the Federal Reserve.

The prospect for higher US interest rates is slowing or reversing capital flows to emerging markets. In previous years, this would have raised fears of capital flight, leading to sharp increases in interest rates and significant currency weakness across many emerging markets.

So far, at least, the message from currency markets is somewhat more encouraging. Virtually all emerging markets have seen their currency decline against the US dollar, as you would expect. And while several emerging-market currencies have shown significant weakness this year, extreme movements have been confined to two currencies—the Argentine peso and the Turkish lira.

In fact, the weakness in the currencies of those two countries may well reflect a risk I mentioned earlier—among other risks, of course—that the independence of those central banks has been put into serious doubt. It can be perilous for an economy if investors come to believe that the outlook for inflation is coming under political influence. By the way, this highlights one of the best attributes of Canada's monetary policy framework. Every five years, after extensive research and consultation, the government agrees in writing on the Bank's inflation target, and gives us the operational independence to pursue that goal.

Interest rate expectations—OIS

And finally, to the money markets. Expectations for Canadian short-term interest rates are best captured in the overnight index swap market, or OIS. Participants in the OIS market can use the swaps to hedge exposure to future Bank of Canada policy rate changes, or to speculate on them.

We watch this market closely because it provides the average forecast of market participants for the path of our policy rate. When the market shifts with some event or the release of economic data, this tells us how participants think our monetary policy will react. As such, the OIS market is crucial for telling us when there is a disconnect between expectations in the market for the economy and interest rates and our own expectations.

This is an important reason why we are generally reluctant to fine-tune market expectations about our interest rate decisions through our communications. If we tried to guide market views so they were always aligned with our own, we would lose the cross-validation that financial markets provide.

Conclusion

It is time for me to conclude.

When you take a broad look at financial markets, the messages they are sending appear to be generally consistent with our economic outlook and our understanding of the main risks to that outlook.

After a decade of extraordinary effort by central banks to flood markets with liquidity, the global economy has reached the stage where stimulus can be steadily withdrawn. Investors are now confronting two-sided risks to inflation, as central banks are shifting those risks back out to the marketplace, and the long-standing trend toward lower bond yields seems to be over. This, in turn, is producing a recalibration in equity markets, both overall and in the details, and creating a more normal level of market volatility. The US economy is leading the way, and this is strengthening the US dollar.

These characteristics do not point to a gloomy economic outlook by any means—rather, they are welcome symptoms of normalization.

On top of this, market action shows considerable evidence of investors' preoccupation with the downside risks associated with international trade actions, both actual and threatened. This preoccupation is understandable, but we must not lose sight of the fact that trade risks are two-sided. Yes, trade disputes may escalate, with obvious negative consequences. But it is also possible that resolutions will be found, in which case the world economy will enjoy a new source of lift. We have seen exactly this dynamic play out in Canada, as fears that NAFTA would be torn up have been replaced with relief after agreement on the United States–Mexico–Canada trade agreement.

In general, it is not appropriate for a central bank to formulate policy based on only one side of a risk distribution. Rather, the Bank of Canada must attempt to weigh both the upside and downside risks and take a middle, risk-balanced path. Given our outlook for growth and inflation, the Bank's policy rate will need to rise to a neutral stance to achieve our inflation target. In determining the appropriate

pace of interest rate increases, we will continue to monitor the economy's adjustment to higher interest rates, given the elevated level of household debt. And we will pay close attention to new developments on the international trade front.