RBC Global Asset Management

Economic Compass

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HIGHLIGHTS

- Improving economic growth has narrowed the spectrum of downside risks, but not eliminated them altogether.
- In particular, one fresh and intensifying risk comes from extremely low inflation in the developed world.
- Gaping economic slack and declining commodity prices explain a significant part of the softness, but not all of it.
- Supplementary justifications such as the effects of globalization, automation or an aging population are tempting, but ultimately unconvincing.
- We suspect inflation has temporarily sunk below fair value, and present a series of short-term and long-term reasons why it should begin to revive.

DEFLATION DOUBTFUL

As economic growth finally revives across the developed world, several downside risks have shrivelled. While this is welcome news, it is no excuse for complacency. The world never stops turning and new threats are always appearing on the horizon. One fresh and intensifying risk particularly worthy of examination is a pattern of declining inflation (Exhibit 1), which some fear could evolve into outright deflation. This report tackles that subject.

In assessing the situation, we can confirm that inflation is indeed quite low across a broad variety of countries and metrics. This isn't overly problematic so long as the episode is short-lived, but it would be rather more troubling if it persists.

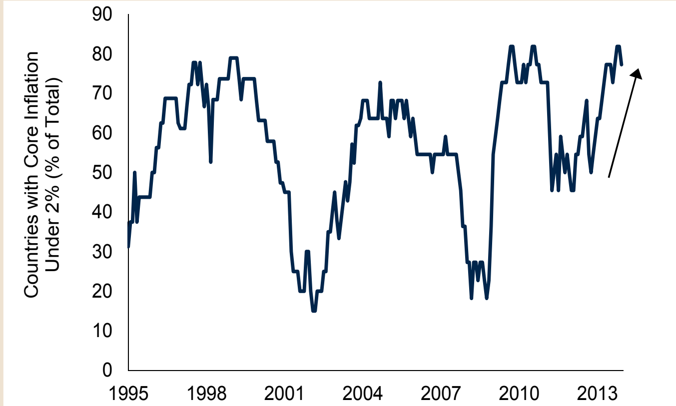
Gaping economic slack and declining commodity prices can explain a significant part of the softness (Exhibit 2), though not all of it. A tangle of supplementary explanations, including the effects of globalization, automation and an aging population are worth considering, but ultimately unconvincing.

Our suspicion, then, is that this bout of low inflation is excessive, and so won't persist for long. This view is bolstered by several short-term impulses, such as rejuvenating economic growth and the prospect of accelerating wages, and by longer-term considerations, such as well-anchored inflation expectations and an ample supply of money. The Eurozone must be acknowledged as the most vulnerable of the bunch, but our overall expectation is for higher inflation across the developed world in a year's time, with further normalization occurring in subsequent years.

Why normal inflation matters

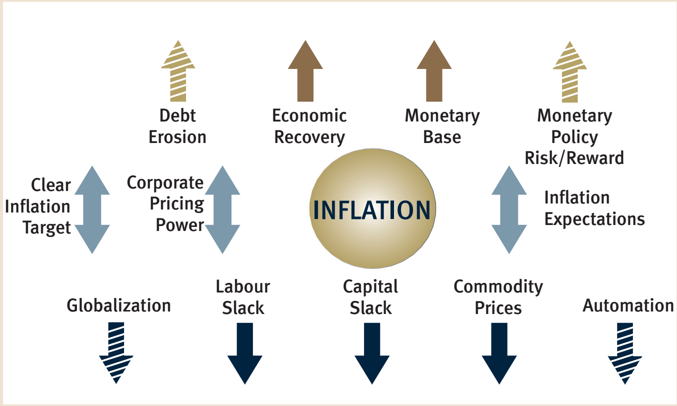
But wait – why is inflation so desirable? Who wants things to become more expensive? Perhaps we should prefer unchanged prices or – at the risk of being greedy – even falling prices.

Exhibit 1: Core inflation below 2% in most developed nations



Note: Core inflation of 22 developed countries. Source: Haver Analytics, RBC GAM

Exhibit 2: Inflation barometer



Source: RBC GAM

The problem with deflation

However, things are more complicated than they first seem. Declining prices rarely translate into increased purchasing power since wages and profits inevitably start falling alongside prices, leaving no one ahead.

In fact, deflation bristles with problems. On the expectation that everything will be cheaper tomorrow, spending tends to grind to a halt, damaging economic growth. Debt becomes more burdensome as declining inflation elevates real borrowing costs, and governments are choked by lacklustre nominal revenue growth. Central bankers find they have diminished capacity to deliver monetary stimulus in an economic downturn, since real rates remain stubbornly positive even when the nominal policy rate is pressed against zero. In this regard, deflation makes a country more vulnerable to severe recessions.

It can be devilishly hard to escape from deflation's embrace. Once people and businesses have become accustomed to deflation (or a period of high inflation, as we'll talk about shortly), they start to expect it to continue. This can be fatal, as expectations are eventually destiny when it comes to price movements.

How about flat prices, then? This offers a tempting middle ground, and does indeed avoid the worst ravages of deflation. However, policies that aim for price stability are ultimately vulnerable to watered-down versions of deflation's problems. And – in the real world, at least – the imprecision of inflation management means that such a policy would result in deflation about half the time, anyway. Adding a further twist, consumer price indices (CPI) – the most common means of gauging inflation – are generally thought to exaggerate the true state of inflation by more than half a percentage point.[1] Thus, so-called price stability really represents mild deflation.

[1] Reports such as the Boskin Inquiry detail the upward biases that exist in fixed-basket price measures such as the CPI.

The problem with high inflation

At the opposite extreme, the scourge of excessive inflation is well understood. High inflation throws sand in the gears of the economic engine, as companies are obliged to constantly adjust their prices and wages, and are thus loath to enter into the long-term contracts that form the foundation of a stable, growing economy. For their part, workers must scurry to the stores as soon as their paycheques come in. High inflation also eats away at investment returns, as investors pay taxes on nominal rather than real income.[2]

Just right

Due to the manifold problems orbiting both deflation and high inflation, policymakers in the developed world have settled on 2% as the ideal inflation rate, minimizing the risk of deflation and the frictions of inflation.

Inflation is low in every way

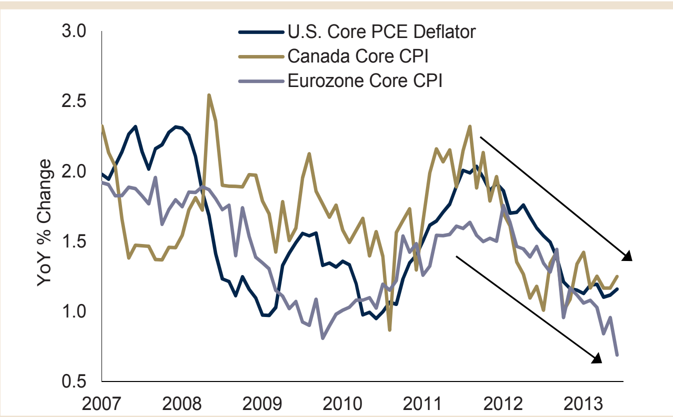
Unfortunately, global inflation has wafted downward from this 2% sweet spot over the past year. This merits acknowledgement as more than a mere blip given the breadth of disinflation across countries; the depth of the divergence from 2%; the persistence of disinflation; and the breadth of disinflation across the price basket.

More than three-quarters of developed nations now grapple with core inflation below 2% (refer back to Exhibit 1). Of the three regions that are the focus of this report – the U.S., Canada and the Eurozone – all currently flirt with core inflation[3] of just 1%,

[2] We can demonstrate the effect of inflation on after-tax real investment returns using an example with a 50% marginal tax rate and a 4% pre-tax real return on investment. In a 2% inflation environment, the nominal return is 6%, taxes consume 3%, inflation then eats up 2%, leaving a positive after-tax real return of 1%. But in a 4% inflation environment, the resulting 8% nominal return turns into a 0% real return after taxes and inflation.

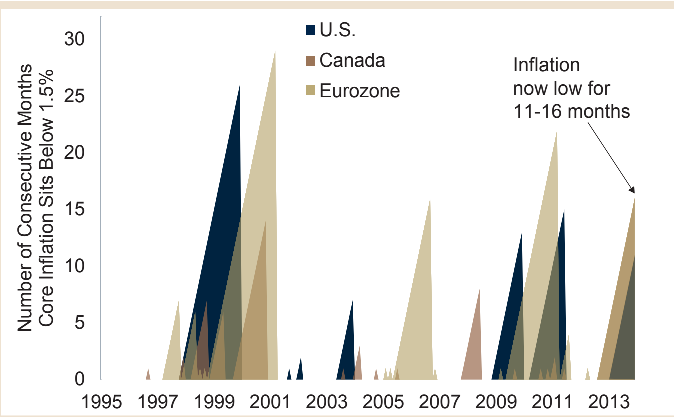
[3] When examining these three countries, we look at the U.S. core PCE deflator – the Fed's favourite measure of inflation, Canadian core CPI (defined as CPI excluding eight volatile items and indirect taxes) and the Eurozone core CPI (ex food and energy).

Exhibit 3: Low inflation everywhere



Source: Haver Analytics, RBC GAM

Exhibit 4: Recent low inflation has lasted many months



Source: Haver Analytics, RBC GAM

meaning they are halfway from normal to deflation (Exhibit 3). Eurozone core inflation is especially low, at just 0.7% – the lowest rate in its (admittedly short) existence.

Inflation has now been low for quite some time, with the Eurozone and Canada leading with 16 consecutive months below 1.5%, and the U.S. not far behind with 11 months (Exhibit 4).

Low inflation is also remarkably broad across the CPI basket. Roughly half of the components in each country notch inflation of 1% or below (Exhibit 5). A more aggregated version reveals that not every component is weak – communication costs seem to be growing faster than normal, for instance – but the bulk of the categories are abnormally soft (Exhibit 6).

Lastly, disinflation pressures may be even more profound than they seem, at least in the U.S. and Canada (Exhibit 7):

- When we exclude administered prices[4] from the mix, the remaining market-driven inflation rate is even lower. Translation: the private-sector economy is generating even less inflation than the official figures suggest.
- Similarly, infrequent purchases – such as new vehicles and furniture – are experiencing much lower inflation than are higher-frequency purchases. Consumers tend not to notice price changes as readily among low-frequency purchases, meaning that the average person doesn't fully appreciate just how low inflation is.

Market and economic consequences

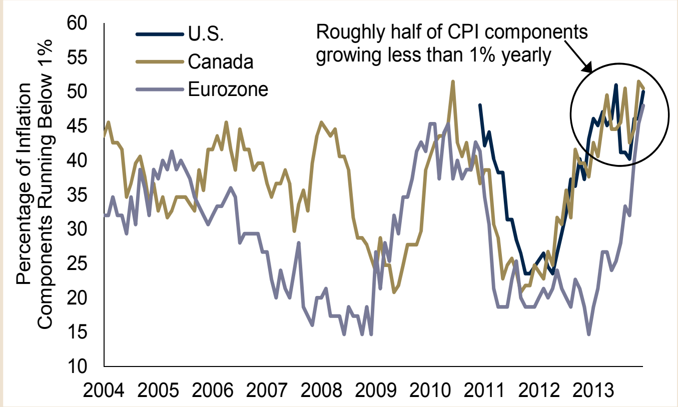
Disinflation appears to be a very real phenomenon. While we'll confess up front to some scepticism that it will last for much longer, there are nonetheless some important considerations to keep in mind for as long as it does.

In the short run, central banks are now tempted to deliver additional stimulus in an effort to prod inflation back to normal levels. This can be observed most readily in a recent Swedish rate cut, the apparent readiness of the European Central Bank (ECB) to deliver additional stimulus despite a growing economy, and the Bank of Canada's downward tilt to a neutral policy bias. The U.S. Federal Reserve has so far been unbowed, but if one thing were to interfere with its tapering trajectory over the span of 2014, it would probably be low inflation. In short, then, markets may enjoy an additional helping hand from policymakers.

Currency markets merit special attention, particularly with policy rates already quite low in most developed nations. Central banks are loath to admit this, but most would welcome a weaker currency, for three compelling reasons. First, with policy rates already near zero, it represents one of the only rapid ways to

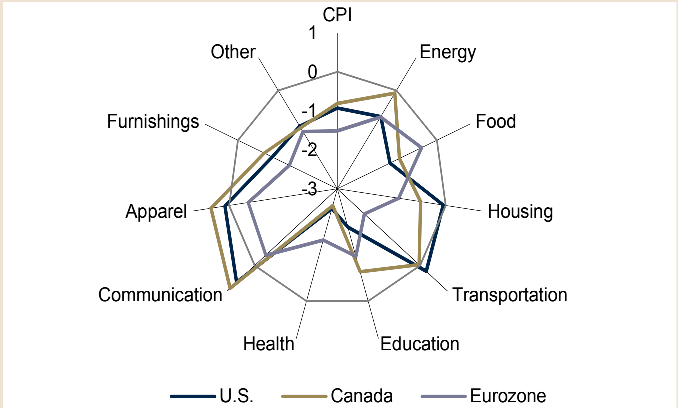
[4] Administered prices are those set or influenced by policymakers or regulations, such as mortgage rates, property taxes and intracity transportation costs.

Exhibit 5: Inflation is low across price basket



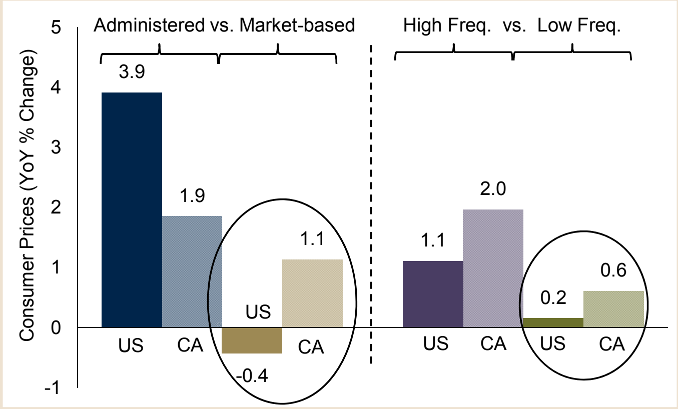
Source: Haver Analytics, RBC GAM

Exhibit 6: Broad-based disinflation in developed countries



Note: Based on latest data available. Normalized deviation of year-over-year percent change of CPI and major categories from 15-year historical average for each. Source: Haver Analytics, RBC GAM

Exhibit 7: Inflation pressures are lower than they feel



Note: Based on latest data. Categorized by RBC GAM. CA stands for Canada. Source: Haver Analytics, RBC GAM deliver more economic stimulus. Second, a softer exchange rate solves the disinflation problem by increasing import prices. Third, it avoids turbo-charging real estate (as a rate cut would) – instead boosting beleaguered manufacturing sectors.

Over the long run, however, the perk of additional help from policymakers is eventually swamped by the litany of already-discussed economic woes associated with deflation. Worse, in the context of a fragile economic recovery in which regaining lost jobs is a priority, there is new evidence from the U.K. that high inflation paired with low wages helps to prioritize hiring over capital expenditures. A sustained period of low inflation could interfere with job creation.

From a market perspective, when inflation has historically deviated outside the 1% to 3% range, stock-market returns have been markedly worse (Exhibit 8).[5]

Why is inflation low?

An enormous variety of explanations have been put forward to justify the current low-inflation environment. We find that some are legitimate, but many ring hollow.

The most obvious – and uncontroversial – explanations are that economic slack and soft commodity prices have undermined prices.

Economic slack

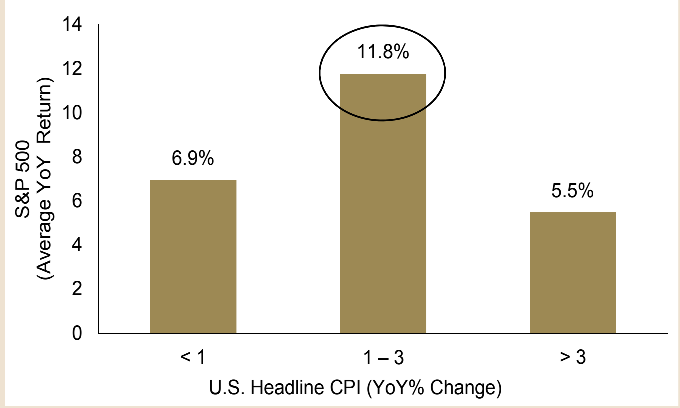
The single most important reason for low inflation is the prodigious slack in the economy. Most of the world's developed nations have been operating well below their economic potential. This means that workers and factories go underutilized. That, in turn, has kept a tight lid on wages (Exhibit 9) and limited the extent to which firms can push higher prices onto consumers. The resulting combination of low wages and low inflation has elicited understandable (if exaggerated) fear of a deflationary spiral (Exhibit 10).

This narrative of economic slack certainly predates 2013, but it is fair to acknowledge that matters were exacerbated last year by the worst global growth since the grim days of the 2009 recession. This subpar performance was the function of intense fiscal drag in the developed world and ebbing momentum across emerging markets.

Reams of research connect economic slack to bouts of low inflation. Exhibit 11 puts this theory into practice: the countries with the largest output gaps today tend to have the lowest inflation. The very fact that disinflation is so broad across the

5 However, when the fact that low inflation is usually experienced during periods of economic weakness is accounted for, the strength of the equity-inflation connection weakens by 40%. As a result, low inflation is no guarantee of inferior stock market returns, particularly since economies seem to be strengthening today.

Exhibit 8: Equities perform best in inflation sweet spot

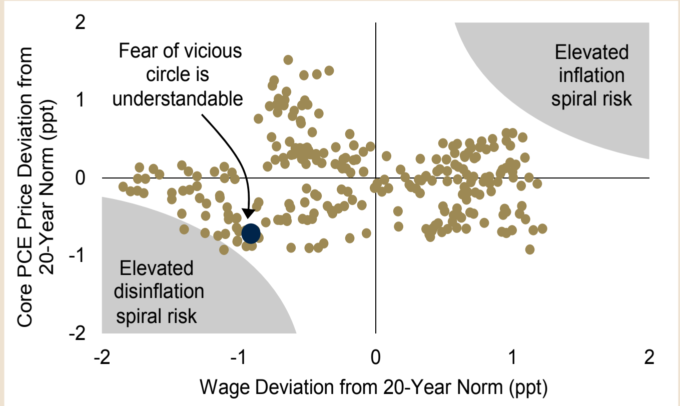


Source: Haver Analytics, RBC GAM

Exhibit 9: Total compensation of U.S. workers is low

Source: BEA, Haver Analytics, RBC GAM

Exhibit 10: U.S. wage-price spiral monitor



Note: Deviation of YoY % change of average hourly earnings and core PCE price index from 20-year norm. Source: BEA, BLS, Haver Analytics, RBC GAM price basket confirms that economy-wide considerations play an important role.

That said, economic slack probably isn't the only factor at work. Each additional percentage point of output gap is supposed to slice around 0.2 percentage point from inflation. By the logic of this rule of thumb, inflation in the Eurozone, U.S. and Canada should justifiably be in the range of 1.2%, 1.4% and 1.9%, respectively. However, actual inflation is lower for all three.

Soft commodity prices

A further explanation for disinflation comes from the observation that commodity prices were weak in 2013, resulting in softer import prices (Exhibit 12), softer producer prices and ultimately lower inflation. The U.S. experience provides a useful demonstration of how falling commodity prices wend their way through to core consumer prices, with an influence that diminishes at each link in the chain (Exhibit 13).

It is evident that soft commodity prices have been part of the disinflation story, if secondary to economic weakness. However, a few caveats should be noted. First, commodity prices haven't fallen very much. Second, they play only a slight role in the movement of core inflation (where policymakers tend to focus their attention). Third, the breadth of commodity-price weakness hints that feeble global demand – really, the same old economic explanation in different clothing – is to blame for lower commodity prices.

Model says

Certainly, these are both important explanations. But do they account for all of the weak inflation? Our inflation models[6] argue that inflation in all three regions is still around half a percentage point too low (Exhibit 14). Exhibit 15 provides a graphical demonstration of the divergence between Eurozone core inflation and the model.

As a result, we need to keep digging for additional root causes of low inflation.

Idiosyncratic reasons

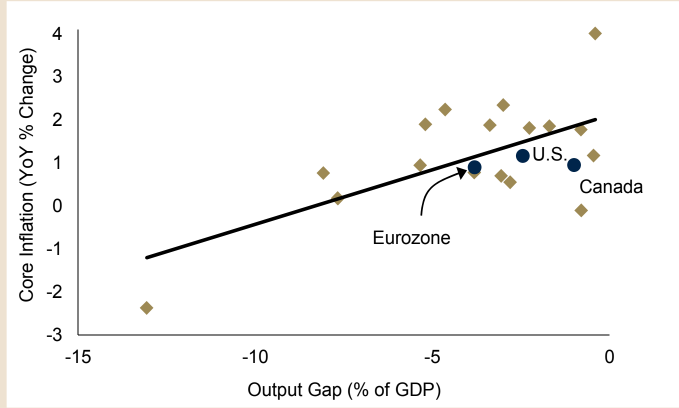
The breadth of disinflation indicates that idiosyncratic answers do not play a central role, but there are nonetheless a few factors worth recognizing on this front.

Health-care inflation has been unusually low around the world, but especially in the U.S. (Exhibit 16). This weakness is partly economic in nature, but also due to government cuts (think Obamacare and the sequester)[7] and the loss of patent protection on popular but expensive medicines.

[6] The inflation models use commodity prices, the output gap, wages, import prices and inflation expectations as explanatory variables.

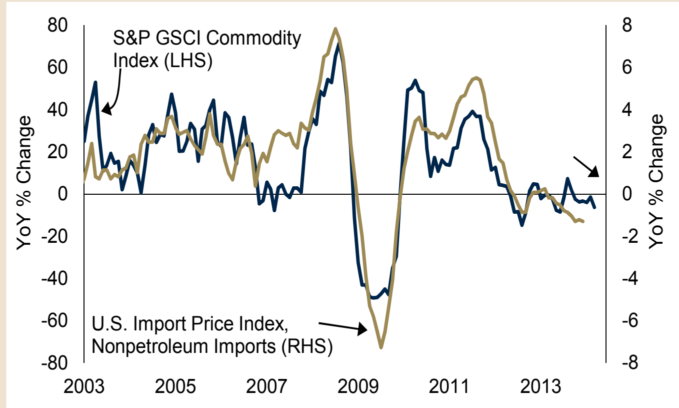
[7] The sequester alone may have chopped 0.15% off inflation via health care spending cuts.

Exhibit 11: Low inflation linked to economic slack across countries



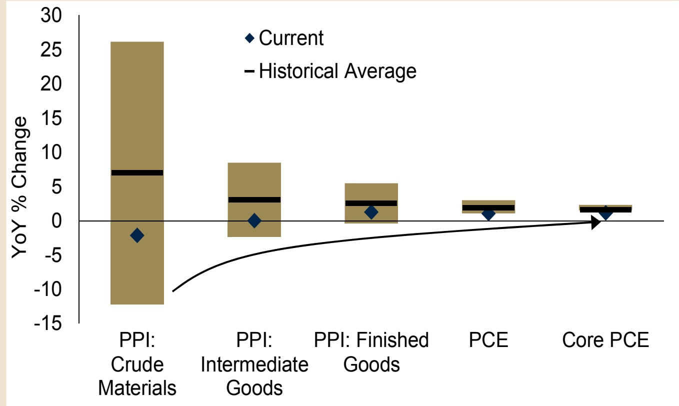
Note: Core inflation and output gap of 21 countries. Latest data shown in chart. Source: OECD, Bank of Canada, RBC GAM

Exhibit 12: Import prices respond to soft commodities



Note: S&P GSCI Commodity Index in 2-month lead. Source: BLS, S&P, Haver Analytics, RBC GAM

Exhibit 13: Cheaper commodity prices trickle into lower inflation



Note: Historical average since 1998. Top and bottom of box represent 1 standard deviation from historical average. Source: BLS, Haver Analytics, RBC GAM

In Canada, a special consideration is intensified retail competition as U.S. firms enter the market and Canadian firms consolidate, depressing inflation by an estimated 0.3% per year.

Structural reasons

What about structural justifications for low inflation, such as the deflationary effects of globalization, automation and an aging population, or even the possibility that inflation has become more sympathetic to the state of the economy? Ultimately, we find these and a handful of other structural arguments unconvincing as justifications for recent disinflation.

No one denies that globalization has lowered inflation in the developed world. Cheaper foreign labour costs and greater competition have combined to reduce costs and prices alike.[8] The International Monetary Fund (IMF) figures that inflation has been lowered by 0.25% to 0.5% per year from globalization alone. We can even observe this directly in the fact that goods prices (which are more easily tradable and thus affected by globalization) have consistently risen less quickly than services prices (Exhibit 17).

Automation has been no less relevant. As machines and computers have become more efficient and firms have learned to deploy them effectively, automation has displaced costly labour and/or pushed labour costs lower. This shows up in lower final prices.

The notion that an aging population might curtail inflation is less clear. There is no doubt that populations are aging in the developed world, that seniors possess outsized political clout and that they generally prefer low inflation to protect their wealth. But there is a big difference between wanting something and getting it. Japan provides a tentative argument in favour of the deflation-aging link. But economic models make an equally compelling counterpoint: retirees stop

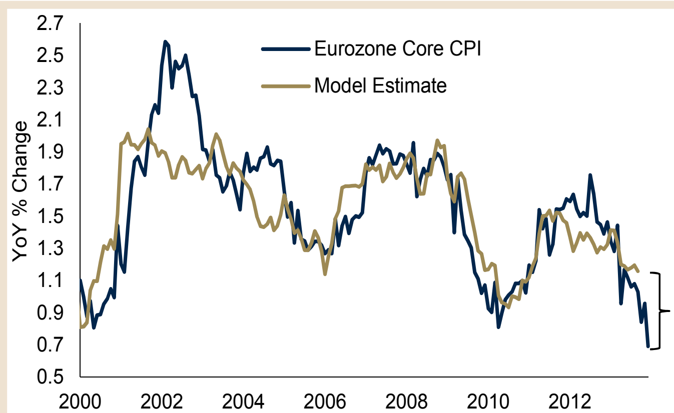
[8] However, globalization is not quite as deflationary as commonly imagined. The accompanying faster growth among emerging market nations increased the demand for limited natural resources, raising commodity prices. The net effect is still deflationary, but less so than commonly imagined.

Exhibit 14: Inflation is too low versus model

		Actual	Model	Gap
U.S.	PCE Deflator	1.1	1.6	-0.5
	Core PCE	1.2	1.8	-0.6
Canada	Total CPI	1.2	1.7	-0.5
	Core CPI	1.2	1.9	-0.7
Eurozone	Total CPI	0.8	0.9	-0.1
	Core CPI	0.7	1.2	-0.5

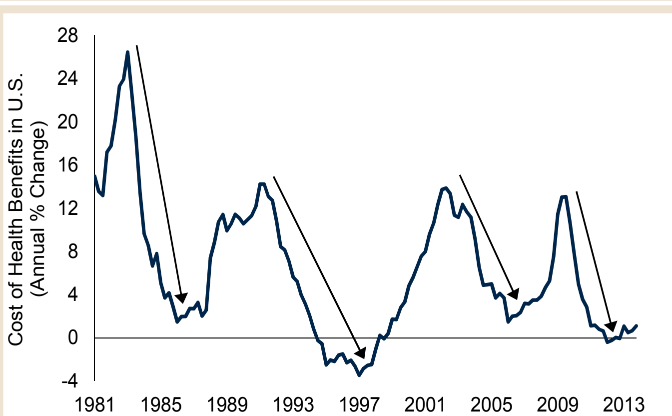
Note: YoY % change based on latest data as at Feb 13, 2014. Model as built by RBC GAM. Source: Haver Analytics, RBC GAM

Exhibit 15: Eurozone inflation should be higher according to model



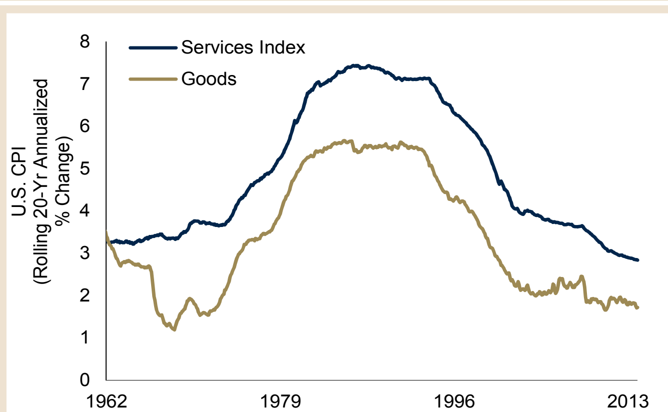
Note: Estimates from RBC GAM model. Source: Haver Analytics, RBC GAM

Exhibit 16: Is decline in health costs structural or merely cyclical?



Note: Annual % change of health benefits cost per hour for U.S. private industry workers. Source: BLS, Haver Analytics, RBC GAM

Exhibit 17: Globalization keeps goods inflation consistently lower



Source: BLS, Haver Analytics, RBC GAM

producing goods and services, but they don't stop consuming them. This creates a mismatch between supply and demand that can only be resolved via higher prices.

Fortunately, we don't actually need to resolve that debate. In our opinion, none of globalization, automation or an aging population are plausible explanations. The reason is simple: every one of these forces has been active for decades. These factors may indeed be depressing inflation, but no more than they did last year, and probably not much different than a decade ago. Thus, they have nothing whatsoever to say about inflation's swoon over the past year.

What about the idea that the long-held relationship between inflation and economic growth is tilting? If inflation were suddenly more responsive to economic weakness (meaning in technical speak that the Phillip's curve has steepened), this could explain low inflation today. However, this is highly unlikely for a combination of empirical and intuitive reasons. Empirically, the relationship has actually been going in the opposite direction – weakening – for decades (Exhibit 18). Intuitively, this makes perfect sense: globalization has reduced the relevance of domestic weakness, declining unionization has diminished the feedback loop between wages and inflation and inflation expectations have become anchored thanks to dependable monetary policy. Inflation should be – and generally is – less responsive to the economy than in the past.

Running out of reasons

We are rapidly exhausting the list of plausible explanations for the remaining half percentage point of disinflation. Fortunately, a few possibilities remain:

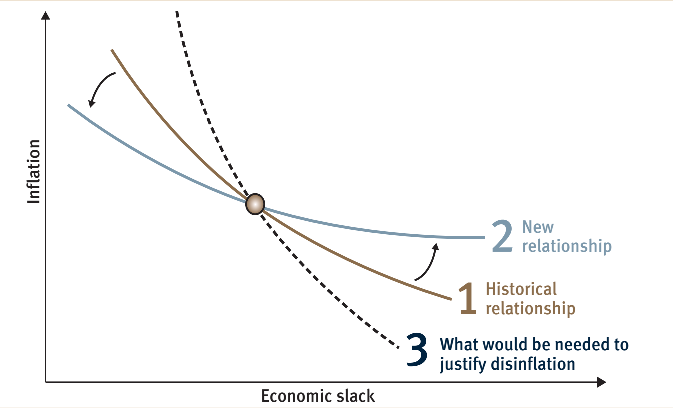
A) Could low inflation be the product of currency movements? Swinging currencies absolutely influence inflation, and U.S. dollar strength could even be playing a small role in U.S. inflation weakness, but it isn't likely a central explanation. Furthermore, currencies are a zero-sum game. One currency rising means another must fall, and so not everyone can experience low inflation due to currency movements.

B) Might there be more economic slack than officially estimated, placing downward pressure on inflation? While just barely conceivable for the Eurozone given ultra-high unemployment rates in southern Europe, it seems quite unlikely for the U.S. and Canada. In fact, our working assumption is that there is less remaining slack than official estimates. We believe the great recession and subsequent malaise have done significant structural damage to the labour force and capital stock (Exhibit 19). For Canada, our calculations argue that the Canadian output gap is just one-third the size of official estimates (Exhibit 20).

C) Could inflation simply be responding with a lag to earlier economic weakness? Inflation does indeed sometimes lag by as much as a few quarters, or even a year. But there is nothing that can support the four-year lag that would be necessary to get from extreme economic weakness in 2009 to disinflation in 2013.

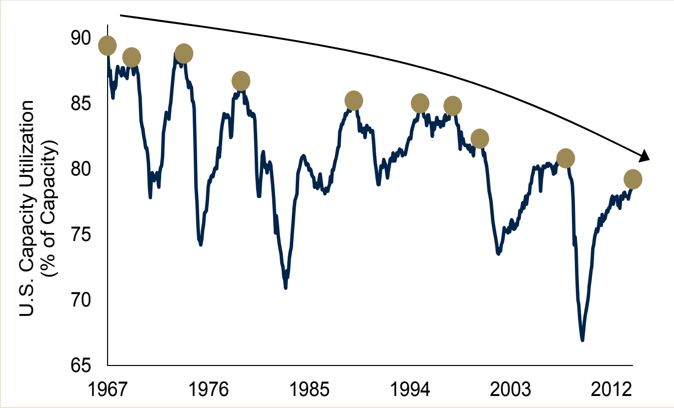
D) Related to the prior two points, could the multi-year persistence of economic slack be taking a special toll on inflation? This is tempting, but there isn't much evidence supporting the thesis. Inflation relates mainly to the amount of slack, not its longevity. In fact, empirical research has recently uncovered that wage growth (and thus inflation pressure) is determined primarily by the number of short-term unemployed. Those who have been unemployed for multiple years are much less relevant since many will struggle to ever find their way back to the workforce. By extension, economic slack that has existed for many years should theoretically exert less of a weight on inflation, rather than more.

Exhibit 18: Flatter Phillip's curve should limit inflation weakness



Source: RBC GAM

Exhibit 19: Capacity utilization "norm" in structural decline



Source: Federal Reserve Board, Haver Analytics, RBC GAM

E) Might inflation be responding with a lag to earlier commodity price weakness? No, we find that this relationship exists in real time.

F) Could commodity prices be having a greater influence on inflation than in the past? No, the opposite is probably true: as developed nations grow, they tend to shift toward an increasingly service-based economic model. In turn, they become less resource-intensive and so less exposed to commodity movements.

G) What about the quirky notion that inflation isn't truly low, it's just showing up outside of the traditional CPI basket – such as via rising asset prices? This argument is appealing given the significant rally in U.S. equity and real estate valuations. But there isn't much evidence that appreciating assets truly serve as a substitute for rising consumer prices, nor is it clear how the two would interact: when money is put into stocks, it merely displaces other money. When stocks rise, businesses don't respond by lowering their prices or wages. In the end, asset prices are excluded from formal inflation measures for good reason. Items only enter the CPI[9] when they are consumed. Stocks cannot be consumed, and life does not become more expensive when the stock market rises. Housing is a bit trickier since it straddles the world of consumption and investment, but this is why most inflation measures include some variation on the cost of dwelling services, without directly capturing the price of a home.

In the end, we must revert once again to a now-familiar conclusion: inflation deserves to be low, but it simply shouldn't be quite this low given that so many of the popular explanations don't stand up to close scrutiny.

[9] Or related measures such as the PCE deflator.

Inflation outlook

This mismatch offers a natural segue to our inflation outlook. We believe inflation will likely rise in the future, for reasons that are both short- and long-run in nature.

Short-run drivers

In the short run – the next year or so – there are several positive forces that should buoy inflation in the developed world:

First, as we have just argued, inflation is lower than it should be, with the implication that some of this distortion should naturally unwind over time. Real-time inflation indicators such as PriceStats tentatively confirm this, pointing to a more normal U.S. inflation rate in the near future (Exhibit 21).

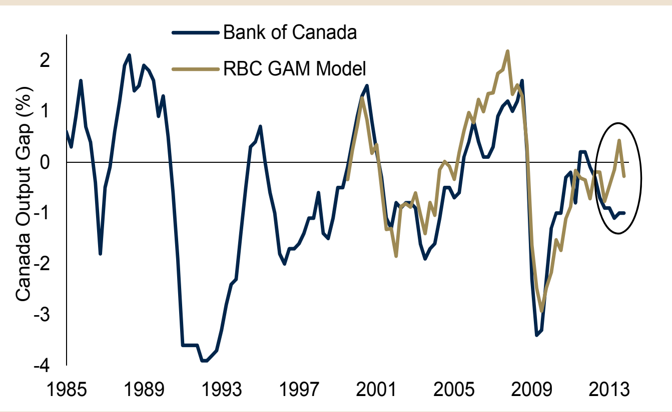
Second, commodity prices have recently edged higher, and this will nudge inflation upwards through the early part of 2014.

Third, we anticipate accelerating economic growth across much of the developed world, which will eat through economic slack and thereby elevate inflation toward more normal levels. This effect is most powerful for the U.S.

Fourth, and related to a strengthening economy, wage pressures may finally be starting to heat up, based on the fraction of small American businesses signalling their intentions to raise salaries (Exhibit 22), and anecdotal evidence from the U.S. Beige Book. Another sign of a resurgent labour market is that workers are beginning to voluntarily leap from job to job, moves that are usually accompanied by salary bumps (Exhibit 23). Unrelated to this phenomenon but nonetheless adding further upward momentum, 13 U.S. states raised their minimum wage on January 1.

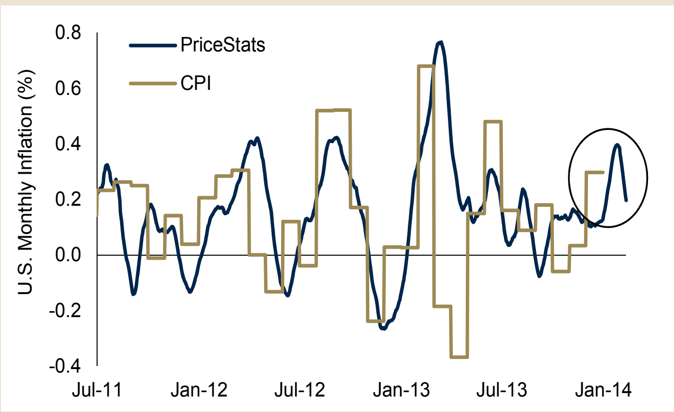
More generally, businesses will confront not just rising labour costs, but also rising borrowing costs and a greater need for capital investments now that previously idle plants have been

Exhibit 20: Canada may have less slack than policymakers think



Source: Haver Analytics, RBC GAM

Exhibit 21: Real-time inflation points to normal CPI in future



Source: State Street PriceStats, RBC GAM put into service. They will aspire to pass some of these costs along in the form of higher prices (Exhibit 24).

Fifth, the duration of past bouts of low core inflation[10] has been fairly short. The 14 such episodes scattered among the Eurozone, U.S. and Canada over the past 20 years range in length from four months to just over two years. The average has been about a year, meaning that the current disinflationary experience – all in the range of a year or slightly longer – should abate shortly (refer back to Exhibit 4).

Sixth, a few one-offs may contribute to higher inflation. In the U.S., the introduction of the individual health mandate as part of Obamacare should elevate 2014 inflation, at least slightly (Exhibit 25). In North America, repeated natural disasters are set to increase property insurance premiums. Severe drought in California may increase North American food prices as well. In Canada, a swooning Canadian dollar will aggressively increase inflation. Indeed, in isolation, the weaker currency should theoretically add an extra 1.7 percentage points to CPI over the coming year (Exhibit 26).

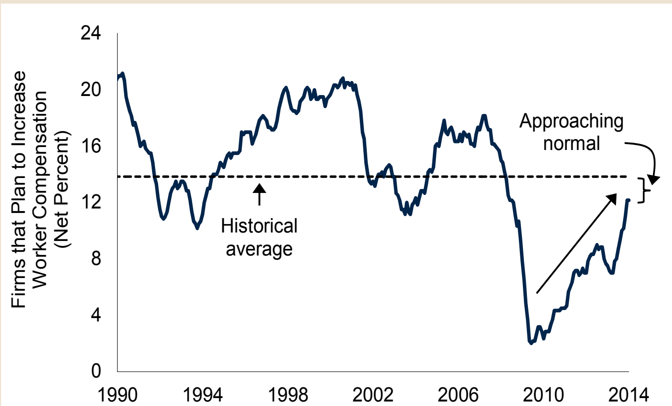
[10] In this analysis, we define low inflation as less than or equal to 1.5% and exclude any bout that lasted for fewer than four months.

Long-run drivers

Over the long run – that is, multiple years – we believe there is little to fear from low inflation. Inflation is ultimately set by a combination of expectations and the supply of money.

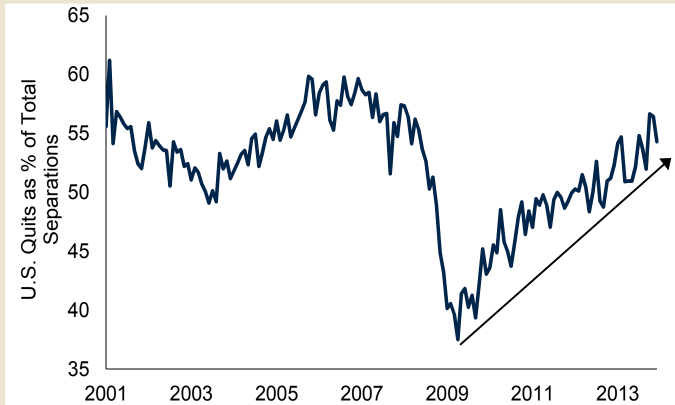
Market-based inflation expectations have dipped slightly, but remain broadly normal in the U.S. and Canada (Exhibit 27). This can be confirmed with survey-based evidence of consumers and professionals alike that also shows generally normal – if a bit low – inflation expectations. The risk is somewhat greater in the Eurozone, where economic weakness is more extreme and inflation expectations have moved more substantially lower.

Exhibit 22: Wage pressures building in U.S.



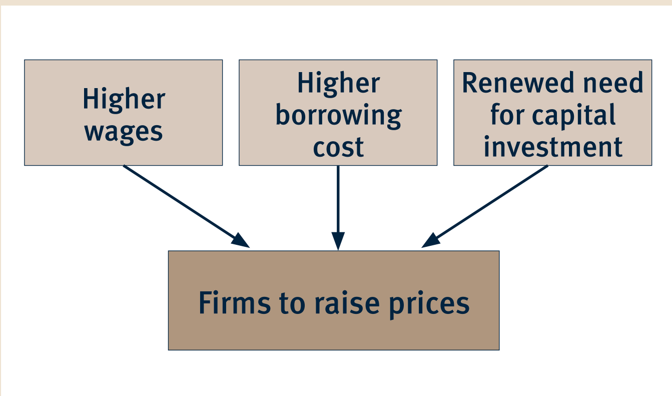
Note: 6-month moving average of % of firms that plan to increase worker compensation less % of firms that plan to decrease worker compensation in the next three months. Historical average since 1990. Source: NFIB Small Business Economic Survey, RBC GAM

Exhibit 23: Voluntary U.S. job separations on the rise



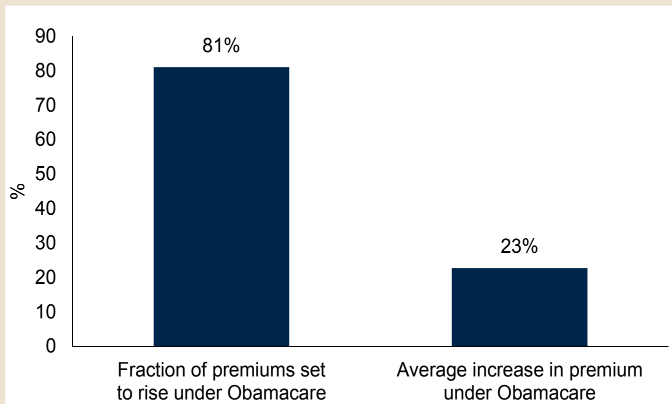
Source: BLS, Haver Analytics, RBC GAM

Exhibit 24: New inflation drivers



Source: RBC GAM

Exhibit 25: Obamacare implications for individuals



Note: Calculations for individual health insurance only (affecting just 20% of population). Excludes employer-sponsored, Medicaid and Medicare. Source: Manhattan Institute, RBC GAM

Meanwhile, central banks can hardly be criticized for scrimping on the supply of money. The U.S. monetary base has almost quadrupled from pre-crisis levels. Admittedly, this hasn't translated into much more money actually circulating through the economy because bank credit has remained stingy and because the velocity of money has been low. But there is evidence of these metrics beginning to recover in the U.S. and – more tentatively – in the Eurozone, raising the prospect of additional inflation (Exhibit 28).

More generally, despite all of the distractions, central bankers will not tolerate low inflation for long, especially if they perceive the risk of it falling further. In fact, we think they could eventually come to permit higher-than-usual inflation for several reasons articulated in Appendix A.

Lastly, from a structural perspective, the deflationary effect of globalization could even be starting to fade. Illustrating this, some emerging market labour costs are beginning to rise more quickly (Exhibit 29).

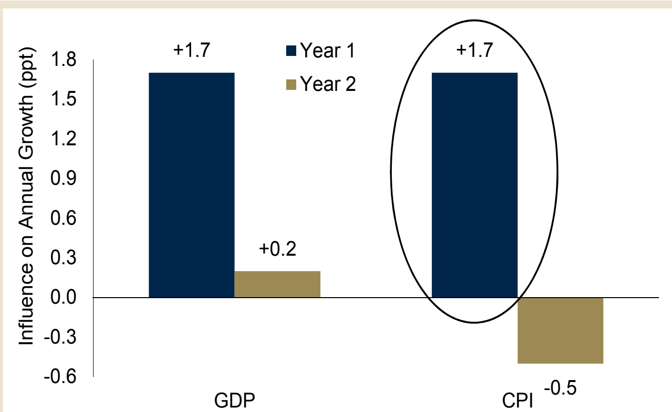
The bottom line

In short, inflation is very low, and there are several good reasons for this. As such, it is important to understand the short-run consequences that ride sidecar to low inflation, in particular the potential for more dovish central banks.

But we don't advise budgeting for a long spell of low inflation, let alone deflation. Current inflation readings seem abnormally low, and the risk of outright deflation is slim. The IMF puts the deflation risk at just 2% for the U.S. and 20% for the Eurozone. That sounds about right: it is hard to fathom the U.S. falling into deflation given all that is going right, whereas the risk is at least conceivable for the Eurozone. We'd put the odds of deflation in Canada around the same as the U.S., given a weaker economic outlook paired with an inflation-importing currency.

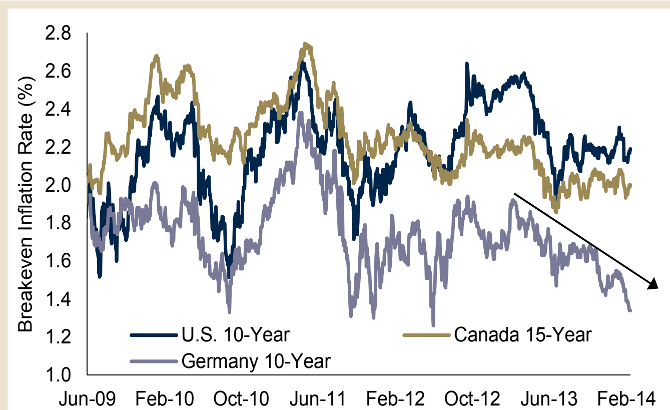
Far more likely is that inflation begins to normalize over the next year, returning to fully normal readings over the span of several years. For that matter, if forced to pick sides, we think inflation has a greater chance of being high rather than low in five years' time.

Exhibit 26: Boost from 10% depreciation of Canadian dollar



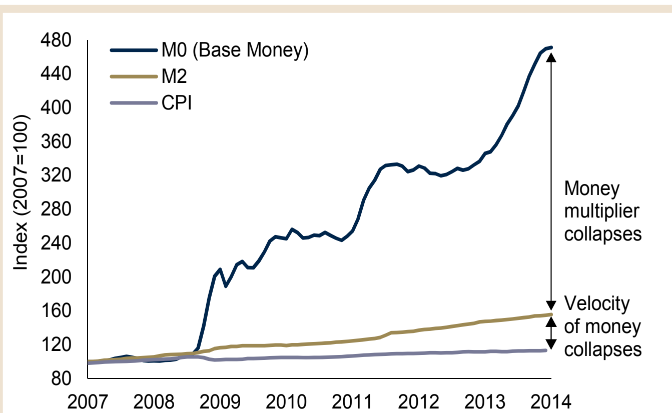
Note: Muting these effects, currencies often depreciate due to domestic economic weakness. Source: OECD, RBC GAM

Exhibit 27: Inflation expectations steady in U.S. and Canada; Germany falls



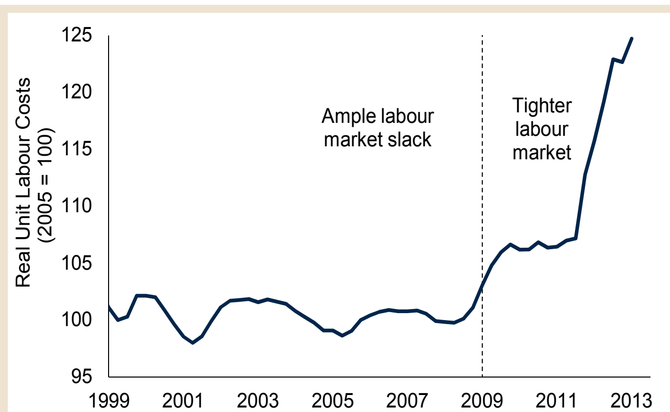
Source: Bloomberg, RBC GAM

Exhibit 28: More money hasn't meant more inflation (yet?)



Note: U.S. money supply and CPI. Source: Haver Analytics, RBC GAM

Exhibit 29: Chinese real unit labour costs have begun rising



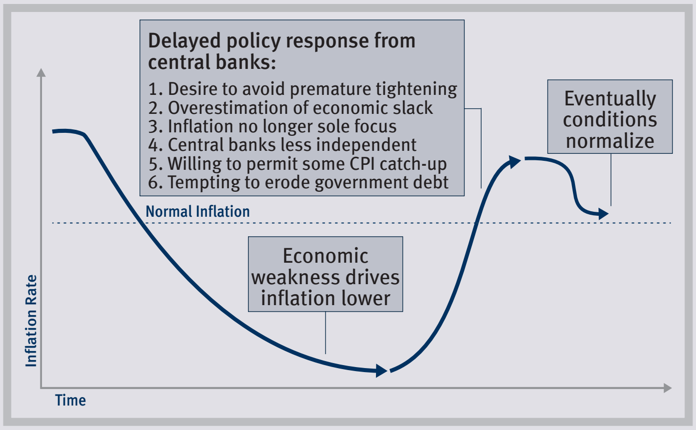
Source: China National Bureau of Statistics, RBC GAM

APPENDIX A: WHY POLICYMAKERS MAY EVENTUALLY PERMIT HIGHER INFLATION

Inflation is low for now, but it won't always be that way. Central bankers may tolerate slightly more inflation as the economic recovery gains steam (Exhibit A):

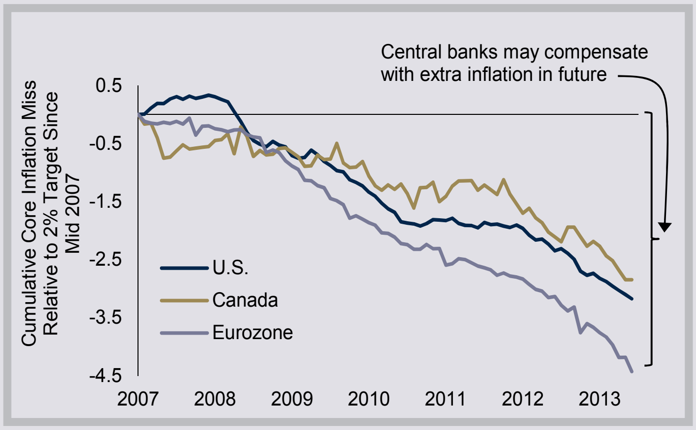
- Risk-reward considerations suggest central banks will not risk the economic recovery by tightening prematurely. Thus, they may err on the side of tightening too late, with the possibility of extra inflation.
- As we argued earlier, there may be less economic slack than policymakers imagine, resulting in a faster increase in inflation than they expect.
- Central banks are increasingly torn between multiple mandates. Whereas most central banks were focused almost exclusively on inflation until recent years, many now grapple with unemployment targets, stand on guard against asset bubbles and have increased their focus on regulation of the financial sector. In an effort to restore normalcy to these other variables, they may be willing to tolerate modestly more inflation.
- Central banks are arguably less independent than they were before the financial crisis, having collaborated closely with finance ministries on stimulus efforts, and taking up greater regulatory responsibilities. This makes them slightly more susceptible to the myopic election-centred thinking that can emerge from political channels.
- Central banks have not formally adopted price-level targeting (which would allow inflation to run above 2% in future years as compensation for it running below 2% in past years), but some – such as new Fed chair Janet Yellen – seem to allow this to colour their thinking. The U.S., Canada and Eurozone have each fallen by a cumulative 2% to 4% behind their inflation target over the past several years (Exhibit B). This may make them more willing to tolerate mild inflation overshoots in the coming years.
- History shows that governments in debt-paydown mode tend to run higher inflation as a strategy for debt reduction (Exhibit C). The developed world currently operates under quite heavy debt loads and will aspire to debt reduction in the coming years.

Exhibit A: Inflation timeline



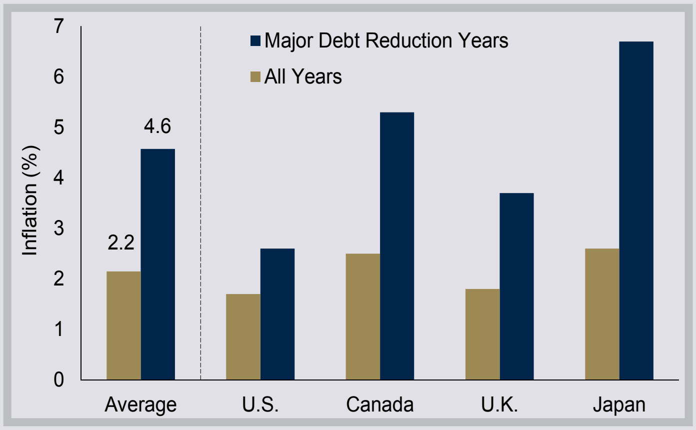
Source: RBC GAM

Exhibit B: Core inflation has materially undershot target



Source: Haver Analytics, RBC GAM

Exhibit C: Inflation higher during public debt reduction periods



Note: Median annual inflation during the periods studied. Covers the period of 1790 to 2009, where data is available. "Average" is the average of the four countries shown. Source: Reinhart and Sbrancia, RBC GAM

A Note on Forward-Looking Statements

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