Carolyn Wilkins: The age of leverage

Remarks by Ms Carolyn A Wilkins, Senior Deputy Governor of the Bank of Canada, to the UBC Vancouver School of Economics and CFA Society Vancouver, Vancouver, British Columbia, 14 March 2019.

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Good afternoon. Let me thank the UBC Vancouver School of Economics and the Vancouver CFA Society for the invitation.

Vancouver is truly a global city. More than 70 countries have consular services here to support foreign-based firms doing business in the region. International students flock to the universities here. And, people from all over the world have decided to invest in housing in the region.

What's happening in the global arena has got to be top of mind for people in this room: the trade war between the United States and China, growing geopolitical unrest in many quarters. These issues are top of mind for us at the Bank of Canada too.

The global development that concerns me the most, though, is rising debt. Global debt now totals around US$240 trillion—that's US$100 trillion higher than just before the financial crisis, and more than three times current global gross domestic product (GDP).[1] Here I'm referring to borrowing by governments, businesses and households. Whether you're a homeowner or a businessperson, you know first-hand that high leverage can leave you in a vulnerable financial position.

It's no different for economies. The world has learned this lesson the hard way on many occasions in my lifetime alone. The budget deficits that the United States incurred in the 1960s—and the excessively loose monetary policy that went along with them—laid the foundation for the "great inflation" of the 1970s and the breakdown of the Bretton Woods system of pegged exchange rates. The recession that followed destroyed many businesses and put many people out of work.

By the 1990s, it appeared we had learned our lesson. Many central banks were adopting some form of inflation-control regime. This not only helped restrain the temptation to inflate away debts, but also contributed to a decade and a half of economic stability.

Yet 2007 saw the beginnings of what would become a global financial crisis. Excess leverage was once again at the root, although this time it was in financial institutions and households. The Great Recession that began that year and lasted into 2009 saw governments, companies and people from all walks of life suffer consequences. Even though Canada was spared the worst of it, we were reminded of how quickly the fallout can spread across borders.

We're now almost 10 years into the global expansion. Many of those who lost their jobs have found work again, asset values have risen, and monetary policy in some countries is no longer at emergency settings. Still, the road that we took to recovery has led us into an era of even higher leverage across many major economies.

Does that mean that the global economy is headed for another period of financial instability? The global financial system is in a better place than it was in 2007 in many ways that reduce risks. There are nonetheless uncertainties that could throw us off track, such as how trade tensions might evolve. In any case, when downturns occur, high leverage is usually an amplifying factor. Let me tell you where I see the trouble spots and what's required to manage them.

Leverage is creating vulnerabilities in many places

So, how did we end up here again?

An important piece of the story is the highly accommodative monetary policies that were needed to clean up the mess and get global growth back on track after the crisis. This, combined with an abundance of global savings, has kept interest rates low.[2] On top of that, many governments implemented large fiscal stimulus programs.

The downturn would have been even deeper and more painful without these decisive policy responses. What strikes me though is how much overall leverage has grown globally, even as the financial sector has repaired its books. Government debt has skyrocketed over the past 10 years, to close to 90 per cent of global GDP. The debt of non-financial corporations has doubled in nominal terms over the same period.

Of course, not all borrowing is bad. Borrowing makes sound business sense if the funds are spent on productive pursuits.[3] That said, not all leverage is created equal in terms of risk. The creditworthiness of the borrower and the quality of the instrument are also important considerations. I'll focus on three areas that are of particular concern to me.

Let me start with the type of debt that is most relevant for Canada—household leverage. The Bank has been clear that high household debt, currently at around 178 per cent of disposable income, is our number one domestic financial vulnerability. Historically low borrowing costs obviously contributed. At the same time, other factors—housing supply constraints, strong interest among offshore investors—contributed to higher house prices and bigger mortgages. People here in Vancouver can relate to that. Canada doesn't have the same issues around the quality of debt that the United States had before the crisis. It is still a worry, though, because debt can put people in a tough spot if interest rates go up or their incomes fall. We take this into account when we set monetary policy. Canada is not alone in this. Sweden and Australia, for instance, are facing similar household vulnerabilities.[4]

Now let me turn to public sector debt. There are good reasons for governments to finance some spending through debt. However, debt can create vulnerabilities if it is not sustainable, or if it prevents fiscal policy from responding to unexpected needs. We saw this in the euro area following the financial crisis. Limited fiscal space in some countries meant that monetary policy had to bear the burden of reviving the economy. Substantial progress has been made since Europe faced a debt crisis around eight years ago. Still, public debt in certain countries remains a concern. This is partly because membership in the euro area prevents economic adjustment through exchange rate movements. Plus, there's no system of fiscal transfers to help smooth country-specific needs. This makes the euro area countries that have weak fundamentals more prone to distress.[5]

The United States and Japan make up the largest share of public debt in advanced economies, but their debt poses less of a worry. US debt instruments are used as reserve assets because of their high credit quality and because the US government bond market is the world's deepest and most liquid. So it's no wonder that US government debt benefits from strong global demand, particularly from China. For Japan, most of its public debt is held domestically, which mitigates the risk.

My third concern is about corporate leverage. Growth in corporate debt can be a good thing, especially when companies are borrowing to invest in new capacity. But it has exploded over the past decade and has some risky qualities.

In China alone, non-financial corporate debt totals about US$21 trillion. That's one and a half times China's GDP and much higher than levels in most advanced or developing economies.[6] This was fuelled in part by very rapid growth in domestic non-bank financial institutions, or the "shadow" banking sector, where there aren't as many safeguards as in the traditional banking

sector.[7] All that debt poses a financial stability risk for China—which could flow to Canada through lower demand for our exports and prices for our commodities, and turbulence in global financial markets.

Non-financial corporate debt in other emerging markets amounts to about US$10 trillion. Around one-third of it is denominated in US dollars. Foreign-currency debt can be riskier than domestic-currency borrowing because it exposes firms to exchange rate risk if they don't have hedges in place.[8] We saw during the Asian crisis in the 1990s how sovereign debt that was denominated in foreign currency led to financial instability that exchange rate devaluations only exacerbated. In the same way, high levels of foreign-currency corporate debt could limit the scope for exchange rate adjustments to play a stabilizing role.

Non-financial corporate debt is also a concern in some advanced economies. For instance, in the United States and the euro area, the quality of corporate debt has deteriorated. We have seen substantial growth of BBB- and lower-rated bonds and a rapid increase in leveraged loans.[9]

Non-bank financial institutions have played the biggest role in the buildup of all this corporate debt since the crisis. That's because global bank lending dropped off sharply as banks repaired their balance sheets and complied with stricter regulatory requirements. The gap has been more than filled by a large increase in bond financing as the investment fund industry capitalized on opportunities created by the retreat in bank lending. The latest figures from the Financial Stability Board (FSB) put total global assets under management for investment funds at US$45 trillion at the end of 2017.[10]

The growth of these funds means that portfolio flows into equity and debt are now the dominant source of capital flows worldwide. There are two key reasons for this. First, the low interest rate environment in advanced economies has spurred investors to seek higher returns abroad. Second, the rising prominence of new products such as exchange-traded funds (ETFs) has made it easy for a broader range of investors to gain exposure to emerging-market debt and high-yield bonds. The expansion of these products is a natural result of capital markets picking up the slack after bank lending fell off. And these products can offer investors greater diversification of risk.

What concerns me though is we don't know how these funds will react when an adverse shock hits, and how the associated portfolio flows will evolve. We've seen more uncertainty in markets in recent months, but we haven't seen a broad and sustained increase in risk aversion. If fund managers were to suddenly shift their asset allocations, the moves could spark a sharp reversal in portfolio debt flows. The business models of investment funds could further amplify the resulting stresses. For instance, the liquidity of ETF shares is widely thought to be higher than that of the underlying assets.[11] In a stress situation, herd behaviour among ETF investors could amplify changes in asset prices and lead to widespread contagion.

What will help keep us on track?

All of this is pretty sobering. But let's remind ourselves what is in place to help keep us on track.

First, the global financial system is more resilient than it was 10 years ago.

Under the Basel III reforms, institutions that are active globally—including Canadian banks—are better capitalized. We shouldn't underestimate the importance of this. These institutions are holding over US$2 trillion more capital than they were at the beginning of 2011 when the reforms started to be phased in. They're also holding more liquid assets and running their businesses with less leverage. It's critical to be well prepared for rainy days. In fact, in December, Canada's Office of the Superintendent of Financial Institutions (OSFI) increased the capital buffer requirement for Canadian banks by 25 basis points, to 1.75 per cent of total risk-weighted

assets.[12]

Stress tests of the Canadian banks are a useful way to assess how much pressure could be placed on their capital in very tough but plausible scenarios. Last autumn, we published results from a hypothetical scenario that involved falling house prices. The exercise showed that our banks could handle such a shock.[13] We'll show more of this kind of work in the next *Financial System Review*, to be published in May.

OSFI's B-20 mortgage underwriting guidelines are also adding to resilience. The guidelines have improved the quality of new lending by limiting the number of new mortgage holders that are highly indebted. Along with higher interest rates, the new guidelines have also limited growth in credit. As a result, we're finally seeing the ratio of household debt to income stabilize.

Second, China is deleveraging, which is critical for its economy and for the world.

China has taken meaningful action, including more stringent regulation and supervision of the financial sector. This strategy has helped to slow credit growth. It's also shrinking certain parts of the non-bank financial sector. This is a good thing because that sector is less capitalized, less liquid and much more opaque than traditional banks. All of this is contributing to slower growth in China, but it's the right path to more sustainable growth in the future. Unfortunately, the trade conflict is making what was already a delicate balancing act for the Chinese authorities even tougher.

Finally, economic growth will make public debt more sustainable—if we play our cards right.

Research has found that the costs of public debt are low when a country's economic growth rate is higher than the inflation-adjusted interest rate on its public debt.[14] It's just arithmetic. In this situation, growth will keep debt as a percentage of GDP on a stable or declining path, even if a country is running a limited budget deficit. If new borrowing follows the golden rule of fiscal policy —borrowing to make investments that support stronger long-term growth, such as infrastructure —then there is even more scope for debt to grow while remaining sustainable. According to Bank estimates, many countries could grow over the medium term at a rate that exceeds the interest rate on their debt. Should countries stay on this growth path and governments limit new borrowing, current public debt loads could be more sustainable.

It's important to remember that a stable debt-to-GDP ratio does not *guarantee* sustainability. A credible macroeconomic framework is critical to maintaining faith in a government's creditworthiness, achieving growth and avoiding instability. Sound fiscal and monetary policies are at the core of this. That includes maintaining or building some fiscal space for when it's needed. This was the case in Canada when fiscal stimulus was used to respond to the global financial crisis and to the oil price shock a few years ago. This helps central banks achieve their inflation objectives, which is our part in supporting strong and sustainable growth.[15]

We also saw the importance of sound policy frameworks late last year as capital flowed out of emerging-market economies. Investors clearly differentiated between countries that had sound frameworks and those that didn't, which limited the spillovers.

What else still needs to happen?

We're in a better place than you might glean from the news. But that doesn't mean there is nothing left to do—there certainly is.

High leverage will always be an important vulnerability because of its hooks into the rest of the global financial system. We need to better understand these linkages to determine if additional safeguards are needed.

The best way is to keep running stress tests on different aspects of the financial system. The auto industry has tested air bags in cars for a long time for how they perform in different types of collisions. “Crash-testing” for banks only became standard practice relatively recently.

More needs to be done to extend this type of analysis to newer players in the system, such as asset managers and other non-bank financial institutions. This is quite challenging because their activity often crosses borders, and the ecosystem that needs to be modelled is very complex. The Bank of Canada and the FSB are both looking at how to model these interlinkages.[16] I find work to stress-test the system particularly worthwhile because it helps identify where safeguards should be maintained or strengthened.

Regulators around the world also need to continue to make good use of macroprudential policies to address localized vulnerabilities as they emerge. Even if these types of policies slow economic growth in the short term, they'll help avoid more painful adjustments in the long run. This is important for both advanced and emerging-market economies.

Individuals play a role as well. As I said at the beginning, high leverage can leave any of us in a vulnerable financial position. I'm hoping that prospective homeowners and other borrowers do their own stress tests so that they can be confident that the debt they take on will be manageable over time.

Before I conclude, let me take a minute to say what we should absolutely not do: have a trade war. Advocates of protectionist measures say that imposing barriers like tariffs on countries with trade surpluses will help reduce disparities in international trade and lead to more domestic production and jobs. This logic may be seductive, but it's misguided. In a trade war, no one gains and everyone loses. Tariffs lower GDP for everyone because they harm investment and productivity.[17] That's why it would be good for everyone if the United States and China resolved their dispute. An end to US tariffs on steel and aluminum would also be a welcome relief to many businesses and workers in Canada and other affected countries. And, of course, the Canada-United States-Mexico Agreement still needs to be ratified.

Even with these steps, getting over the general malaise around trade policies will require some tangible commitment and a plan to modernize the World Trade Organization's trade rules—including for intellectual property—and its dispute settlement mechanism. This would pave the way for higher global growth and a more sustainable debt burden.

Conclusion

It's time for me to conclude.

Global debt is now more than three times global GDP. That is a headwind to growth and makes us vulnerable to another period of financial instability. The good news for Canadian businesses and households is that the financial system—globally and here at home—is safer than it was a decade ago thanks to much stronger safeguards. And, the global expansion is expected to continue even though it has slowed in recent quarters. For Canada, the economy is likely to be weaker in the first half of this year than we had forecast in January, but we still expect GDP growth to pick up later in the year.

That said, more needs to be done to further reduce the downside risks. A long-lasting resolution to the current trade war is at the top of my list because the conflict is threatening growth around the world right now. Credible fiscal and monetary policies, and nimble financial system safeguards, are at the core of limiting vulnerabilities and promoting longer-term resilience for all countries.

What's at stake is the future prosperity of many people, at a time when stability is sorely needed.

I would like to thank Rhys Mendes, Gitanjali Kumar and Grahame Johnson for their help in preparing this speech.

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[1] See the Institute of International Finance's latest *Global Debt Monitor* (January 2019).

[2] Abundant global savings and factors such as population aging have contributed to lower "neutral" interest rates in advanced economies, including Canada. For more detail, see X. S. Chen and J. Dorich, "The Neutral Rate in Canada: 2018 Estimates," Bank of Canada Staff Analytical Note No. 2018–22 (July 2018). This is in part because emerging-market economies have less developed financial systems that may not be able to generate enough financial assets to absorb domestic savings, so capital flows from these countries into others where the financial systems are more advanced. See E. G. Mendoza, V. Quadrini and J.-V. Ríos-Rull, "Financial Integration, Financial Deepness and Global Imbalances," *Journal of Political Economy* 117, no. 3 (June 2009): 371–410.

[3] See M. Carney, "Growth in the Age of Deleveraging" (remarks to the Empire Club of Canada and the Canadian Club of Toronto, Toronto, Ontario, December 12, 2011).

[4] Specifically, none of these countries saw a large drop in house prices during the crisis. In addition, in all three economies the usual financing channels continued to work; government support encouraged further lending; and as house prices rose following the crisis, debt levels did too.

[5] Public debt has also been on the rise in some emerging-market economies. As of August 2018, more than 45 per cent of low-income countries were at high risk of, or already in, debt distress as measured by the International Monetary Fund (IMF)'s debt-sustainability ratings. See the IMF's *Global Financial Stability Report* (October 2018).

[6] According to the IMF, about 25 percentage points of this debt is incurred by local government financing vehicles.

[7] For more detail, see J. Bowman, M. Hack and M. Waring, "Non-Bank Financing in China," Reserve Bank of Australia *Bulletin* (March 2018).

[8] An example of this exchange rate risk is when the US dollar rises because of normalization of monetary policy by the US Federal Reserve.

[9] Leveraged loans are loans provided to highly indebted non-financial corporates. Non-bank institutional investors typically invest in these loans, including through collateralized loan obligations.

[10] See the FSB's *Global Monitoring Report on Non-Bank Financial Intermediation 2018* (February 2019).

[11] Liquidity and maturity transformation are key vulnerabilities that could lead to runs by investors in the absence of prudential regulation. See B. Y. Chang, M. Januska, G. Kumar and A. Usche, "Monitoring Shadow Banking in Canada: A Hybrid Approach," Bank of Canada *Financial System Review* (December 2016): 23–37.

[12] For more detail, see OSFI's December announcement.

[13] See T. Duprey, X. Liu, C. MacDonald, M. van Oordt, S. Priazhkina, X. Shen and J. Slive, "Modelling the Macrofinancial Effects of a House Price Correction in Canada," Bank of Canada Staff Analytical Note No. 2018–36 (November 2018).

[14] See O. Blanchard, "Public Debt and Low Interest Rates" (AEA Presidential Lecture, January 2019).

[15] See S. S. Poloz, "Toward 2021: The Power—and Limitations—of Policy" (remarks to The Chamber of Commerce of Metropolitan Montreal, Montréal, Quebec, February 21, 2019).

[16] For more detail, see the FSB's *Policy Recommendations to Address Structural Vulnerabilities from Asset Management Activities* (January 2017).

[17] See A. Barattieri, M. Cacciatore and F. Ghironi, "Protectionism and the Business Cycle," National Bureau of Economic Research Working Paper No. 24353 (2018) and K. B. Charbonneau and A. Landry, "The Trade War in Numbers," Bank of Canada Staff Working Paper No. 2018–57 (November 2018).