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Facing down the debt supercycle

The rapid assumption of debt by businesses, governments, and consumers worldwide has helped push global borrowings to historic highs. These debt levels are the result of borrowing in the global financial markets, even as structural imbalances have sprung up in the economies of both developed and emerging market countries.

While there is no simple answer for how best to accommodate this macroeconomic risk, we believe investors must look openly at the issue of a debt supercycle and should have a clear-eyed view of associated risks. In the following pages, we will examine what has happened on a global scale, what it means, and how the global debt situation can color thinking about asset allocation.

As a risk-aware global manager of fixed income, we value our role in helping clients identify the risks that matter. That's why we've chosen the topic of the debt supercycle to introduce a new series, ***The Great Risk Rebalance****. As we assess the current landscape for fixed income investors, future installments in the series will seek to give readers clear insights, and a risk-aware path to sound investment decision making. Please be sure to look for associated commentaries and interviews on delawareinvestments.com.*

Executive summary

- Global debt has reached historic levels, with many advanced economies now at their highest debt-to-gross domestic product (GDP) ratio ever.
- Developing countries have accounted for half the recent global debt issuance, and corporations have been accelerating offerings — all contributing to the debt supercycle.
- High global debt levels have weakened global economic growth, and unlike previous experiences, the credit cycle has started to drive the business cycle.
- Low economic growth presents risks for companies and governments throughout the world. This has elevated credit risk, rather than interest rate risk, as a larger concern, even with the unprecedented monetary policies that have been instituted worldwide.
- Fixed income investors should adapt to the environment and navigate carefully through the market, recognizing the shortcomings of passive investments, trying to avoid risks and value traps, and accepting that returns could be lower than historical norms.

Since 2007, stimulus policies by governments have fueled a massive wave of releveraging

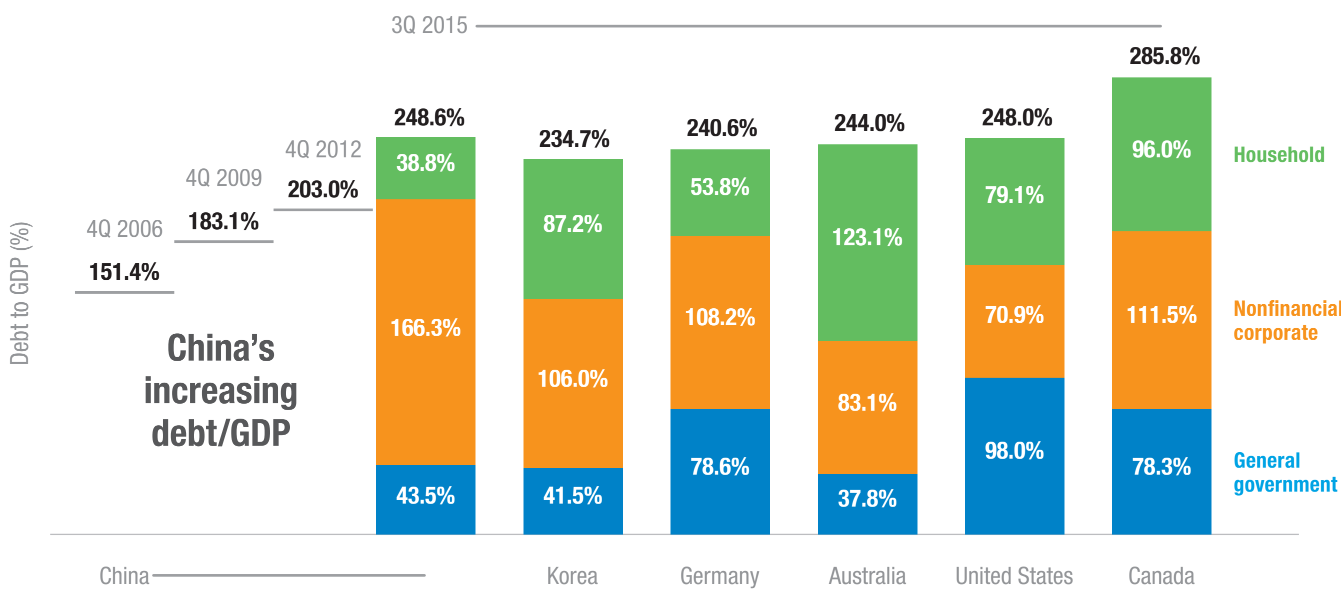
across the globe, accelerating a trend that began slowly and steadily some 60 years earlier. In recent years, rates near zero — and in many cases below zero — have enticed businesses, governments, and consumers to borrow at a blistering pace.

In the consumer sector, low-interest, readily available mortgages have propped up home sales, and cars are being financed at little to no interest. Corporations worldwide issued $29 trillion in debt since the start of the financial crisis in 2007 (source: Bloomberg, February 2016). Central banks in numerous markets not only have suppressed interest rates but also have committed enormous sums to quantitative easing. Today, advanced economies hold the highest debt-to-GDP ratios that the world has ever seen. Developing countries are in on the action as well, accounting for 47% of the growth in global debt, twice their share of pre-crisis totals (source: McKinsey Global Institute, *Debt and (Not Much) Deleveraging*, February 2015).

In a global environment of virtually unfettered debt, fixed income investors need to navigate macro risks.

Debt-to-GDP of China vs. select developed economies

In an interesting point of comparison with other countries, China's debt reached 249% of GDP in the third quarter of 2015, higher than some advanced economies



Note: Numbers may not add up due to rounding. China is generally considered among the newly developed countries, economically.

Source: Bank for International Settlements

Charts are for comparison purposes only.

I. The situation

Welcome to the latest stage of the debt supercycle. From 2007, when the worldwide financial crisis began, through 2014, global debt swelled by $57 trillion to $199 trillion. As of March 2016, worldwide debt was calculated at more than 300% of global GDP, compared with 269% in 2007. (Sources: McKinsey Global Institute, *The Wall Street Journal*.)

What is a debt supercycle?

The term debt supercycle refers to a long period of intense and persistent increase in leverage throughout the economy. The term was coined in the 1960s by Montreal-based BCA Research and focuses on gains in national debt relative to GDP. Cycles of debt proliferation trace back to the Great Depression when, in trying to keep a severe contraction from recurring, the government stepped in to help smooth out business cycles — by increasing government spending and establishing fiscal policy.

Government intervention worked to minimize the impact of recessions after World War II, but it came at a price. Debt-derived stimulus meant that the excesses of the booms no longer were washed away in recessions. Each new economic upturn carried debt and imbalances that grew higher and higher with each cycle. That has inexorably led academic economists to identify multidecade supercycles of increasing debt.

Today's debt supercycle, however, is different from prior ones. It is structured differently, including not only government, corporate, and household debt, but also debt from both well-developed economies and emerging markets. That means that events in these markets can be connected and cascading.

For example, one perspective of the current debt cycle can be taken from significant financial occurrences of recent decades — from the 1997 Asian financial crisis, to the Internet and housing bubbles bursting in the 2000s. Together, events like these can form one interconnected buildup of debt, a supercycle that finally reached a crescendo with unconventional monetary policies adopted after 2008. While this is a darker view of modern financial history, it is clear that the global buildup of debt in recent decades was passed down from event to event, settling today with the true lenders of last resort — sovereign governments.

Policy responses addressing the debt cycle

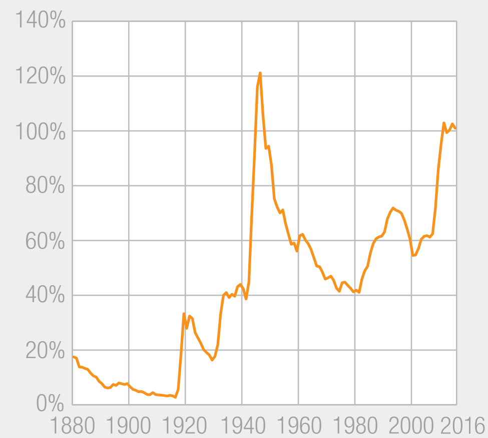
While the amount of global debt outstanding today is clearly significant, this supercycle is different for reasons other than the size of the debt. One important reason is globalization — the fact that economies and markets are so connected and interdependent. The policy responses to the massive global debt reflect that globalization, and while the responses may not always be coordinated, at times one country's or region's actions may trigger similar responses in other areas.

History of U.S. debt cycles: Rivaling postwar levels

Going back to the 19th century, the amount of U.S. GDP consumed by debt tended to run in less extreme cycles until the large debt accumulated during and just after World War II. Now, the mounting debt is rivaling that, especially following the global financial crisis of 2008–2009.

The debt cycles grow larger

Debt as % of GDP



Data: Paolo Mauro, Rafael Romeu, Ariel Binder and Asad Zaman, "A Modern History of Fiscal Prudence and Profligacy," IMF Working Paper No. 13/5, International Monetary Fund, 2013 (for data between 1880 and 2011); The Federal Reserve Bank of St. Louis (data from 2012 to 2015).

The policy responses since the global financial crisis have varied, including a range of fiscal solutions and economic stimulus, such as tax cuts, bailouts, and cash voucher plans. All these stimulus policies are temporary tools, designed to prevent economies from contracting too far into recessions or depressions, and to help reduce the stress or illiquidity of financial markets. In recent years, monetary policy has taken more of a lead role to try to address the situation. Central banks' efforts at economic stimulus focused initially on quantitative easing, with mixed results at best.

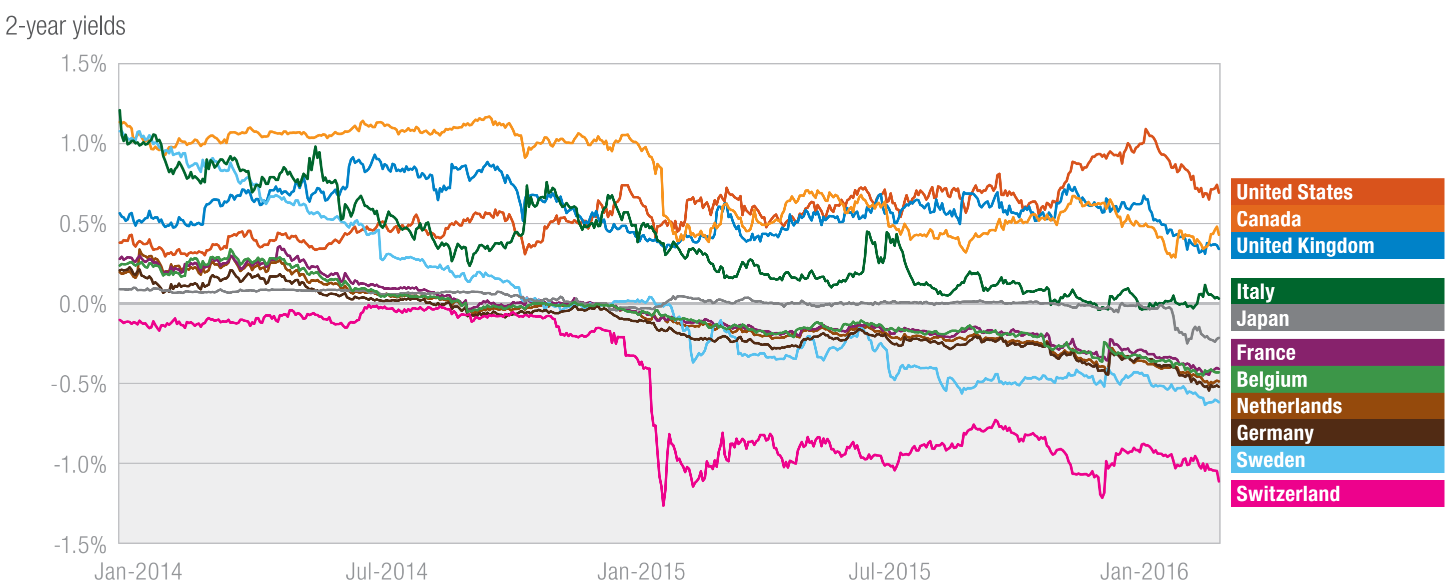
In the United States, which arguably kicked off the global financial crisis with its subprime loan problems, the quantitative-easing program has saddled the Federal Reserve with a balance sheet that now exceeds $4 trillion (source: Federal Reserve Board of Governors, March 2016).

In Japan and in several European countries, many interest rates are now negative — borrowers are paying for the right to hold some government issued debt — moves that the central banks have taken to address their specific, lackluster economies. Eight of the 11 members of the group of developing nations known as the G11 countries show subzero yields and, in aggregate, about $7 trillion of government bonds, slightly less than a third of the Bloomberg Global Developed Sovereign Bond Index, offer yields below zero (source: Bloomberg, February 2016).

To date, these monetary and fiscal policies have proven to be little more than temporary fixes, and meaningful economic growth remains elusive. Further, it's increasingly apparent to us that the actions of the central banks have aggravated the situation. Historically, debt increased in line with GDP;

The slide below zero

Yields on 2-year government bonds of G11 countries



Source: Bloomberg, February 2016

it rose fast during booms and receded during recessions. But the alacrity with which central bankers often pushed stimulus plans tempered downturns and kept debt levels high even during corrections. Without the moves from central banks, it is likely that the debt bubble would have already burst of its own accord and the debt supercycle wouldn't have had the longevity or the magnitude that it now has.

Is a benign unwind in the cards?

Today, global growth has slowed, and, along with it, so has pricing power. Core inflation in the U.S. remains low, below the 2% level that the Fed has set as its target (source: Federal Reserve, March 2016). Structural disinflation looks set to continue, in part as commodities indicate the absence of any inflationary pressure on the horizon.

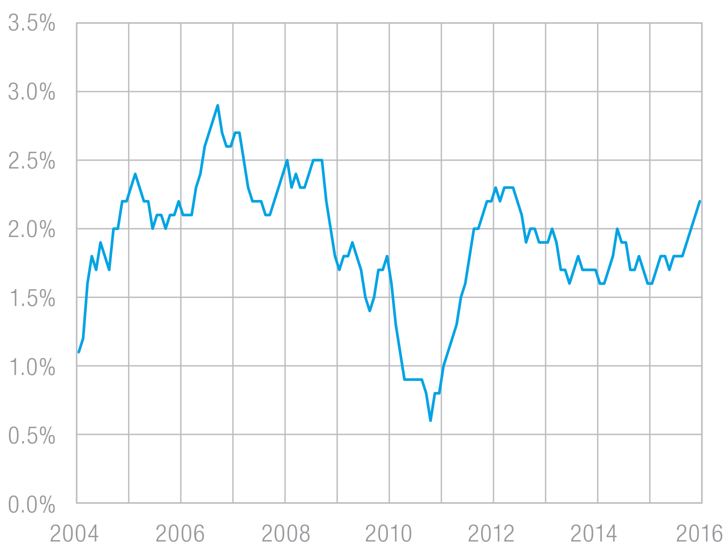
Global recovery will likely be asymmetrical, with some companies and governments more agile in navigating the debt supercycle and commensurate low-growth environment. In the U.S., we are now beginning to see (as of this printing) moderation in debt issuance in only select sectors (energy, for one, which is under pressure from slumping oil prices). But examples like that appear to be the exception, not the rule.

Globalization is a double-edged sword, and one should not expect it alone to lead the world out of the debt supercycle.

Low inflation persists

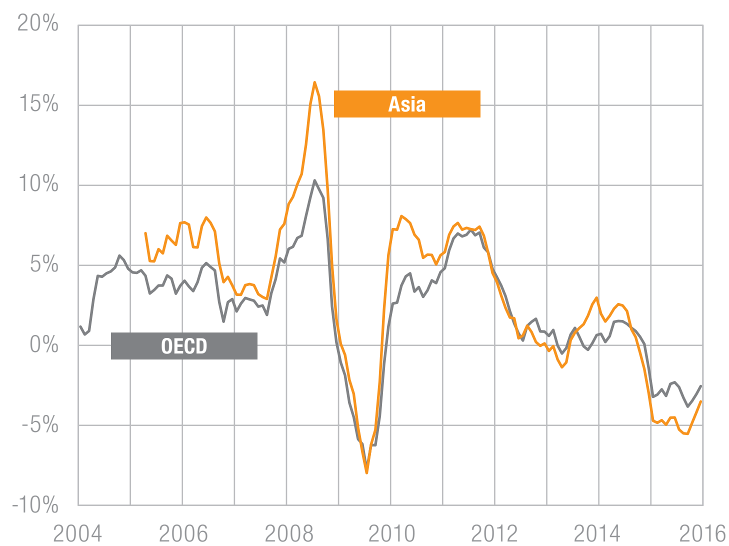
Core U.S. inflation low, cyclical ticks higher

U.S. Consumer Price Index (CPI)



Structural disinflation looks set to continue

Producer Price Indices (PPI) for OECD* and Asia

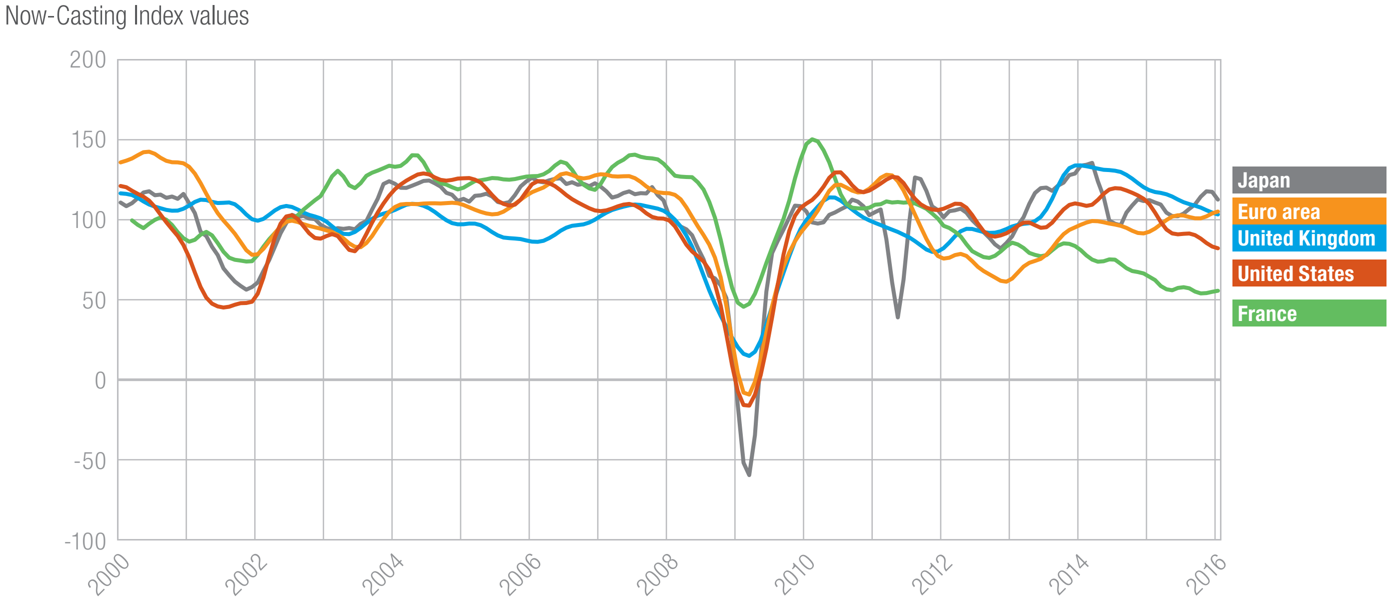


Source: Bloomberg, February 2016

*Organization for Economic Cooperation and Development

Global growth slowing

Now-Casting Index shows that global economies are at risk of losing altitude



Source: Bloomberg, February 2016

Note: The Now-Casting Index is an indicator of overall economic activity published monthly for eight of the world's largest economies: the United States, China, Japan, the Euro area, the U.K., Brazil, Mexico, and South Africa. The index is normalized to have a mean value of 100 and a standard deviation of 25. Values above 100 signify growth is above the long-term average.

In a sense, globalization has the ability both to compound the problem and to offer solutions. While there have been debt supercycles before in the U.S., today's iteration could have more pronounced consequences because of the globalization that links economies and financial markets. In the past, individual countries had the potential to actively reduce their debt levels in a number of ways. They could shore up fiscal policies or realize rapid growth to propel them out of debt. They could even write down debt or seek debt forgiveness from creditors.

These kinds of solutions may not all be practical in a globalized world, and economic circumstances, such as anemic growth, could prevent them from being implemented. At the same time, it is because of globalization that there is more global cooperation — from bodies such as the International Monetary Fund (an organization established to foster global monetary cooperation, financial stability, and similar goals worldwide) as well as among world economic leaders. This lends itself to a path of viable solutions for the debt supercycle.

Traditionally, hopeful thinking about the potential for a natural, cyclical wind-down of debt indicates that a variety of industries (technology, health sciences, and biotechnology, among them) can lead the way over time by providing transformative economic growth. Yet it's prudent to assume that, overall, global growth in the near term should be moderate at best, as the large debt levels suppress faster growth.

Countries can of course reduce debt via defaults, or by receiving forgiveness from creditors. But what's good for some nations is not a solution for all. It is also not clear that such unconventional debt forgiveness scenarios are on the horizon — not with prevailing negative interest rates, not with central banks' continuing to pump money into the system, and not with economic growth at best moderate.

While it's an interesting academic question whether large-scale debt reduction (if not destruction) can come from lenders or from borrowers, most professional investors still need to get around to the business of allocating assets. The combined risks at hand today present a challenging environment, but global investors don't need to abandon the fixed income asset class, which continues to offer diversification, potential stability, and income. Rather, investors need to be especially mindful of the risks and carefully select the fixed income securities that have the potential to deliver in such an environment and ensure that their portfolio reflects their risk and return profile.

From resetting expectations to relying on the right strategies, there is an investor path through the debt cycle.

II. Implications for investment in fixed income

Despite the issues presented by the debt supercycle, fixed income remains an important allocation within a broader portfolio. Certain investors still turn to fixed income for diversification, stability, and, ideally, income generation. The asset class, though increasingly correlated with stocks, may provide a buffer from the volatility of equities. Income is another issue, especially during the context of historically low rates.

1. Adjust return expectations.

As a result of the low-rate environment and elevated risk level across the fixed income spectrum, investors first have to adjust their return expectations — unless they are willing to step out further on the yield curve and assume more interest rate risk, or take on more credit risk by accepting lower-quality bonds.

Overall, however, the risk-reward scenario narrows in a low-yield environment, when there's not ample income to attempt to cushion returns. In an environment in which high yield bonds, for example, have 10% coupons, investors may be willing to take on more risk because the returns are substantially larger than the amount they can earn from more conservative investments. Spreads have narrowed considerably, though, and as a result many investors are going to simply have to accept lower returns than they have in the past.

2. Mitigate credit risk while capturing opportunities.

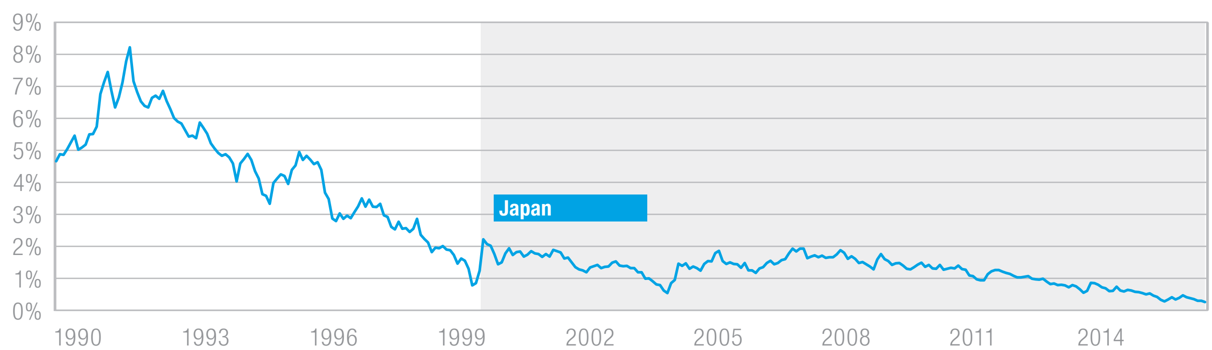
Investors need to be balanced in how they perceive credit risk in a more globalized debt supercycle, as credit risk recently has become the impetus of much of the volatility. In fact, this has led to the credit cycle driving the business cycle — rather than the reverse, which is normally the case. There are opportunities in such an environment, but taking advantage of them requires strong macro management and fundamental security-selection skills — such as with experienced portfolio management teams and research staffs to identify securities with the right fundamentals even in stressed markets. At the same time, investors must be cognizant of credit risk. They should keep in mind that at times a more defensive approach, such as investing for more stable income, may be the appropriate choice, rather than looking for price appreciation driven by the market.

One simple example of the need for a balanced approach is in evaluating the corporate positions of the commodities and energy sectors, and the sovereign bonds of those countries highly dependent on commodity exporting. While these securities might be tempting because of their potential for higher returns, they remain susceptible to price volatility, such as the price of oil, and the structural imbalance between supply and demand due to slower global growth. The extreme volatility of this sector in 2015 into early 2016 would seemingly preclude these securities for many investors. But a seasoned, risk-aware investment team could potentially identify those securities associated with sound fundamentals that represent bargain-buying opportunities when the structural imbalance is gradually adjusted.

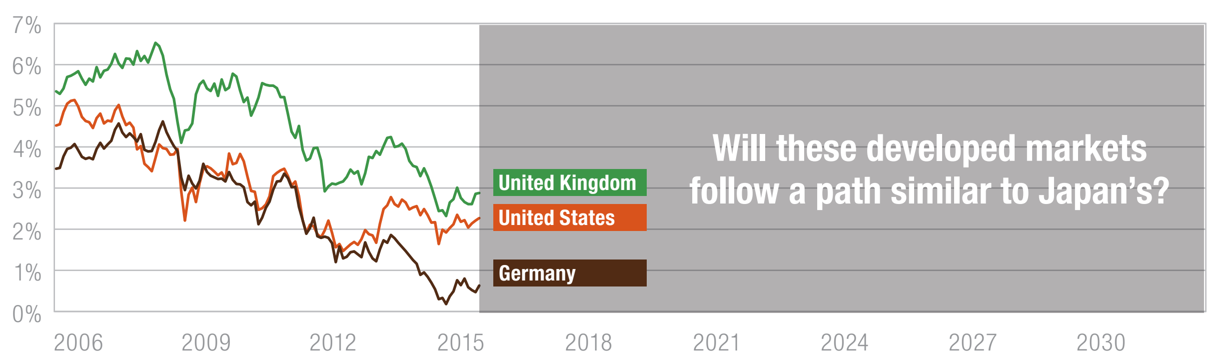
The outlook for rates

Japan has had a lengthy experience with lower bond yields

10-year bond yields since 1990



10-year bond yields since 2006



Source (both charts): Bloomberg

3. Consider actively managed investments.

Another issue for investors concerns investing in passive fixed income products that track bond indices. An index investment can be perceived as a good strategy during positive market environments, when the index is tracking those returns. However, investors should consider what could happen in down markets and how they might fare with passively managed investments that, by design, would follow that downward trend. With active management, on the other hand, investment managers can select between ostensibly good credits and bad credits, making active management appealing to certain investors in an environment ripe with credit risk and when a large slice of funds are invested in bonds with negative returns.

4. Avoid value traps.

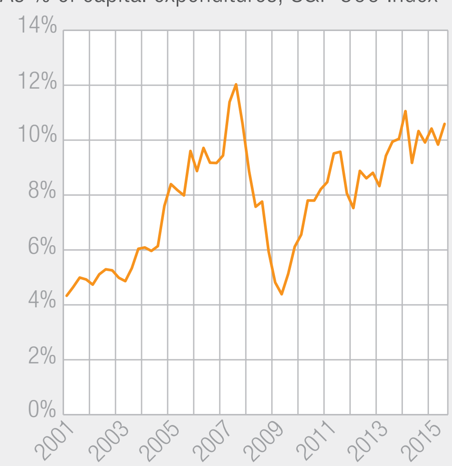
Finally, investors need to be especially wary of value traps. Yield-focused portfolios with riskier assets clearly are tempting to many in a low-growth, low-rate environment. It's important to remember, however, the heightened degree of assumed risk of certain types of securities, especially against the backdrop of a low-growth environment. For some investors, a small allocation to such high yielding securities might be a valid consideration. Conventional wisdom suggests that those investors typically would introduce a certain amount of risk into their portfolio rather than taking a more prudent approach.

How the credit cycle influences the business cycle

To illustrate how the credit cycle influences the business cycle, let's consider corporations and stock buybacks. In the U.S., constituents of the S&P 500® Index were set to repurchase as much as $165 billion in stock in the first quarter of 2016, approaching a record they set before the crisis in 2005. Much of the cash to execute those buybacks came from proceeds of debt issuance. Buybacks may be good for shareholders and prop up equity prices, but such investments don't produce economic growth. They don't generate income to service that debt. And that means the aggregate buybacks will impact GDP negatively down the road. Furthermore, that debt will have to be paid back — a result that will likely put pressure on some borrowers that haven't been investing in their businesses, but instead have focused on buying back their stock or paying dividends. Please see page 12 for important index information.

The surge in buybacks and dividends

As % of capital expenditures, S&P 500 Index



Source: S&P and Macquarie, February 2016

III. Reassessing the risks

Given the complex, global nature of the current debt buildup, how can professional investors be confident that they have a clear-eyed view of often interrelated risks?

Interest rate risk

After the global financial crisis, economists and investors around the world overwhelmingly focused on interest rate risk. The concern appeared valid, reminiscent, for example, of the 1980s, when an interest rate spike contributed to the savings-and-loan crisis in the U.S. Further, the Fed dropped rates to historically low levels, hovering barely above zero, and left them there for a prolonged period of seven years. That only heightened concerns about when rates eventually would begin to rise.

The results may not be clear, but awareness of the potential impact is critical.

Interest rate risk, though, has proved a distraction from a larger issue: credit risk. And that concern looms large because the argument can be made that the huge debt level has created a scenario in which the credit cycle is driving the business cycle, rather than vice versa (see "How the credit cycle influences the business cycle" on page 9). This is a departure from the norm; usually it's the business cycle that influences markets.

A result is that, as central banks like the Fed have increased their role in sponsoring and supporting many economies, they have played an outsized role in financial markets and, in turn, the global economy.

As a result, central banks today are nearly hamstrung and can only raise rates marginally — low and slow. That's the case with the Fed, which appeared poised to raise rates multiple times in 2016, but instead has backed off significantly as it has signaled more global awareness.

Credit risks in slow growth and low inflation

Another risk in this debt supercycle is the downward pressure on prices — and not just the volatility of oil prices, which, despite a recent rebound, remain well below their highs of recent years. For decades, fixed income investors could rely on growth and rising prices. Investors, businesses, and governments alike all borrowed at fixed prices and were generally able to repay their debts as economies grew and prices climbed in subsequent years.

These factors not only affect borrowers but also businesses that increasingly are reluctant to build inventory as they have in the past. They may no longer foresee an ability to charge more for their products next year, so they might revert to buying back stock.

Other risks

Other risks include consumer credit. In the U.S., student loan debt now tops $1.2 trillion, and about 30% of those borrowers are delinquent or in default (source: *The Wall Street Journal*). And housing loans in markets such as Sweden have some economists worried about a bubble, while deceleration in China's economy has impacted commodity-producing countries. A strong U.S. dollar also has implications on numerous emerging market economies. In sum, the debt supercycle has created an environment full of risks and one of slower growth worldwide.

Conclusion

The increase in financial obligations around the world has marched steadily higher since the 1970s. Unlike prior debt supercycles, however, this one is structured differently. It has grown out of three major sources — governments, nonfinancial corporations, and households — as well as from both developed and emerging market countries. In another important difference, the debt in this supercycle accumulated in more globalized economies with more active trading of goods and services, and more interconnected global capital markets.

We believe the root cause of the debt supercycle is the imbalance or structural issues in the economies or financial system of various countries or regions. These imbalances can include a wide range of issues, from government fiscal deficits, to housing overbuilding and excessive borrowing. They may be addressed and resolved more quickly in some countries, while delayed in others. Nonetheless, in our view, the technical components of the U.S. economy remain firm.

Similarly, because of the global nature of this debt supercycle, some countries may be ahead of others in emerging from the debt trap. It is possible that weak global economic growth, unprecedented monetary policies such as low and negative interest rates and quantitative easing, and low inflation may be protracted issues. We are mindful within the realm of asset management about the need to mitigate fundamental risks in a challenging global capital market. In fact, some aspects that are considered particularly challenging — such as negative interest rates — can be an opportunity in areas such as the U.S. where interest rates are positive and still have the potential to increase. When and how the world can be extricated from the debt supercycle may be unclear, but the risk of this uncertainty should be monitored and managed in targeting the return on investments.

Overall, we believe that, when constructing portfolios, capital preservation and stable income remain priorities in efforts to manage risks and protect against difficult environments.

Investing involves risk, including the possible loss of principal.

Past performance is no guarantee of future results.

All charts throughout are for illustrative purposes only.

The Asian financial crisis of 1997 gripped much of the region that year. It started in Thailand with the collapse of its currency and as the crisis spread, most of Southeast Asia and Japan experienced slumping currencies, devalued equity markets, and a sharp rise in private debt.

Structural disinflation: Disinflation refers to the slowing in the rate of price inflation, when the inflation rate has dropped marginally over the short term. It differs from deflation, which is the opposite of inflation; that is, falling prices. Disinflation can be structural, or a factor in the underlying economy, or cyclical, meaning that it is only occurring for a period.

The U.S. Consumer Price Index (CPI) is a measure of inflation that is calculated by the U.S. Department of Labor, representing changes in prices of all goods and services purchased for consumption by urban households.

The Producer Price Index (PPI) program measures the average change over time in the selling prices received by domestic producers for their output. The prices included in the PPI are from the first commercial transaction for many products and some services.

The S&P 500 Index measures the performance of 500 mostly large-cap stocks weighted by market value, and is often used to represent performance of the U.S. stock market.

The Bloomberg Global Developed Sovereign Bond Index is a rules-based market-value-weighted index designed to measure the fixed-rate local currency public obligations of developed countries. The index is USD-based and contains issues from the United States, Canada, Europe, and Pacific Rim countries.

Index performance returns do not reflect any management fees, transaction costs or expenses. Indices are unmanaged and one cannot invest directly in an index.

International investments entail risks not ordinarily associated with U.S. investments including fluctuation in currency values, differences in accounting principles, or economic or political instability in other nations. Investing in emerging markets can be riskier than investing in established foreign markets due to increased volatility and lower trading volume.

Fixed income securities and bond funds can lose value, and investors can lose principal, as interest rates rise. They also may be affected by economic conditions that hinder an issuer's ability to make interest and principal payments on its debt.

High yielding, non-investment-grade bonds (junk bonds) involve higher risk than investment grade bonds.

Diversification may not protect against market risk.

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