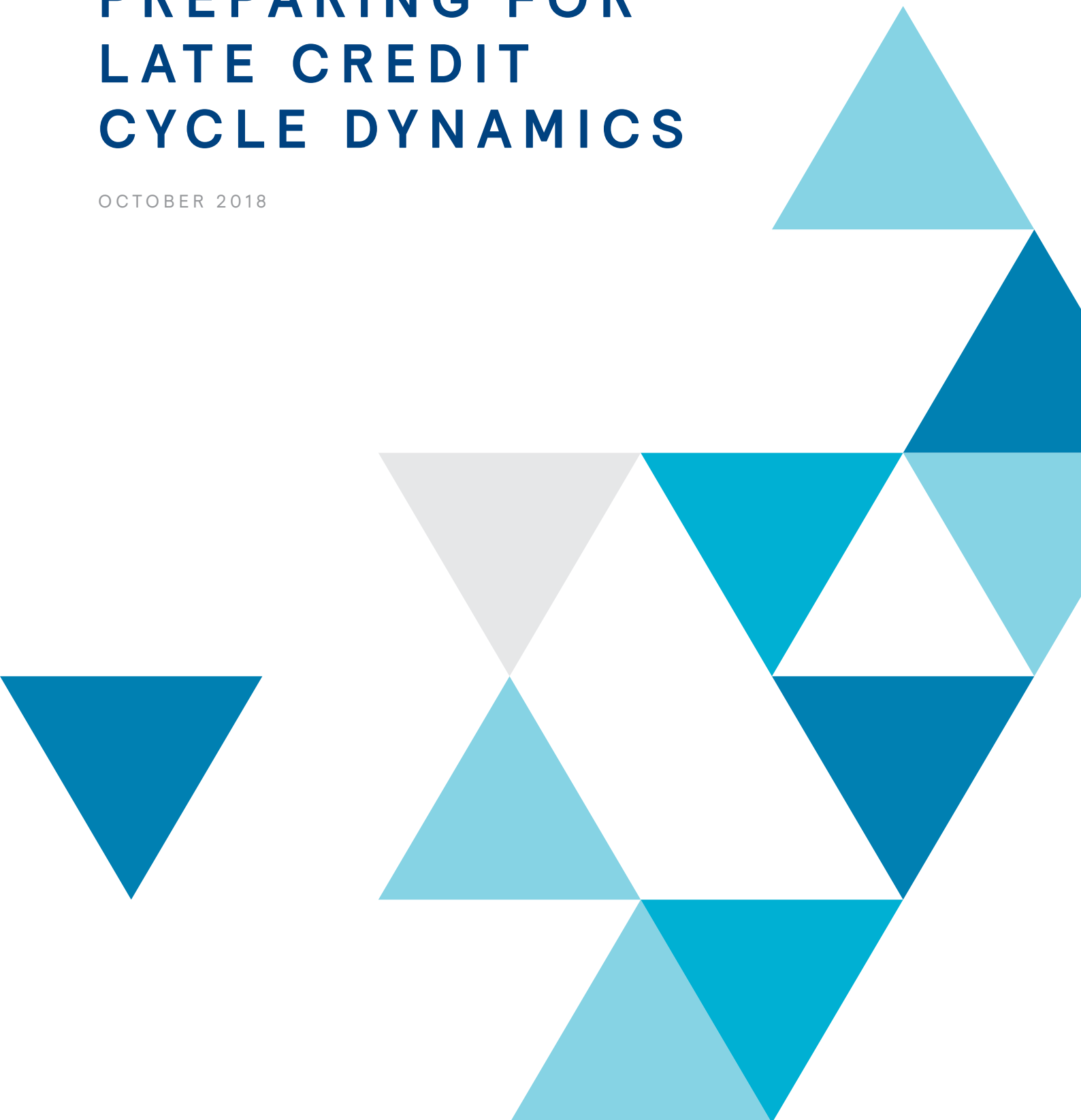


HEALTH WEALTH CAREER

PREPARING FOR LATE CREDIT CYCLE DYNAMICS

OCTOBER 2018



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The credit cycle, or the expansion and contraction of the supply of credit to borrowers, typically moves through three distinct phases, with distinct characteristics. We refer to these phases as the early, mid and late stages of the credit cycle.

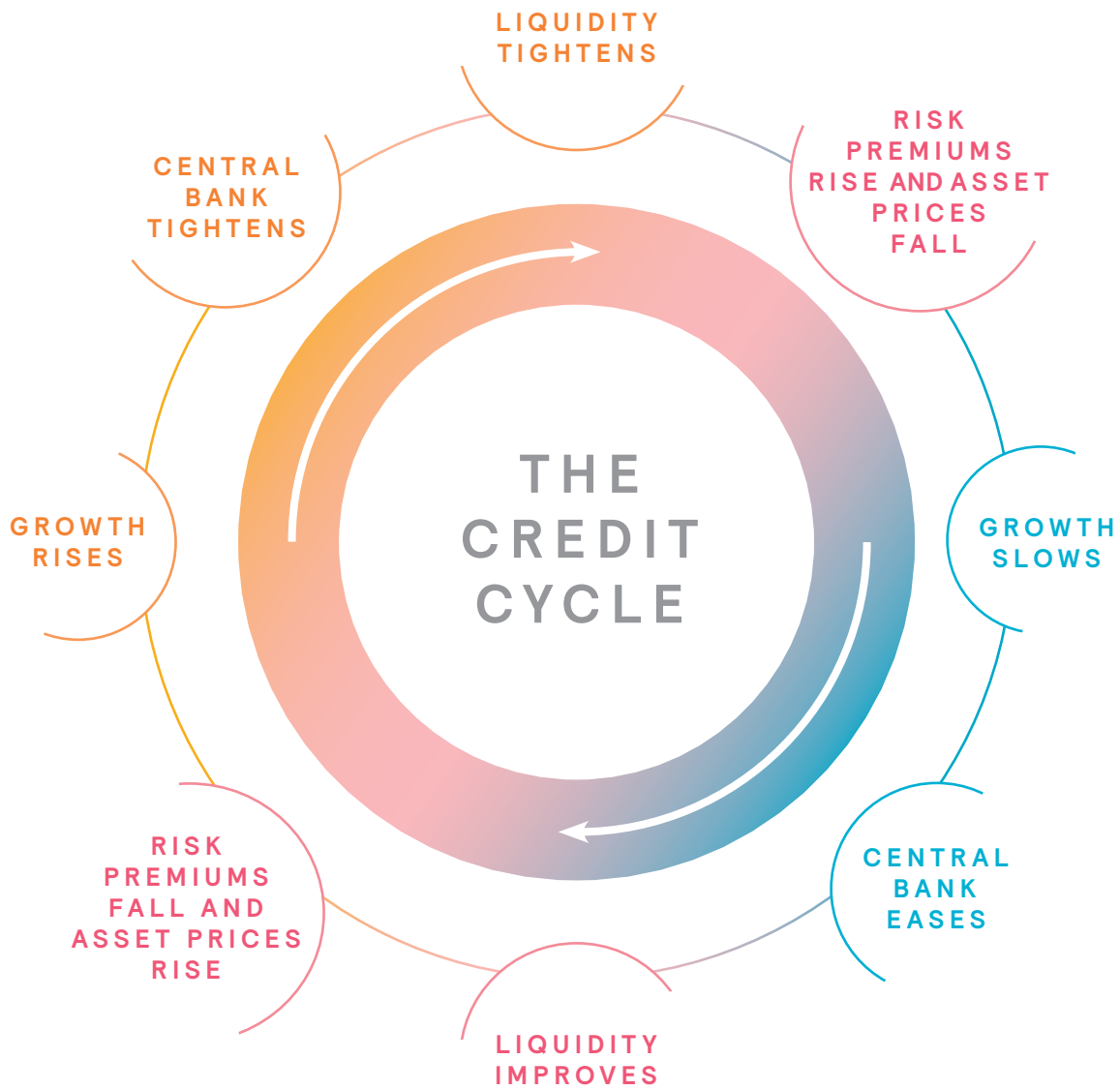
- **Early (repair):** At the beginning of the credit cycle, credit availability is relatively low. Companies are trying to deleverage by reducing the amount of debt they hold. During this period, monetary policy is typically expansionary, trying to encourage the economy to recover, and risk appetite is low, but the premium on offer for taking risk can be high.
- **Mid (recovery):** As companies and lenders begin to make progress toward reducing their leverage, corporate spending and borrowing should start to re-emerge. In the mid stage of the credit cycle, risk appetite will begin to return to the markets, while prospective risk premiums are still attractive under supportive monetary policy.
- **Late (expansion):** With strong economic growth returning to the markets, and corporate leverage increasing, monetary policy is likely to start becoming less accommodative. In the late stage, risk appetite may be excessive, whereas risk premiums are likely to be compressed due to elevated asset prices. Monetary policy will begin to tighten, with interest rates rising as a result.

Although the goal for central banks is to curb excessive lending without resulting in a contraction in credit availability significant enough to jeopardize economic growth, the late stage of the credit cycle inevitably (based on recent history) eventually ends with a contraction in credit, a reduction in growth and a transition to the early stage of a new credit cycle.

These different stages of the credit cycle and their characteristics mean that the stage in the cycle we are at and how long it will run can have important implications for an investor’s portfolio.

This is because of the role the credit cycle plays in corporate and consumer spending – which, in turn, influences economic growth, risk taking and asset prices.

FIGURE 1: THE CREDIT CYCLE



UNDERSTANDING WHERE WE ARE IN THE CREDIT CYCLE

Although it is easy to say that a credit cycle exists, it is much harder to take a stance on where we are in the credit cycle or – more important – how much farther the current credit cycle has to run. Earlier this year (as part of Mercer’s [“Themes and Opportunities 2018”](#)) we stated that we believed the US was approaching the late stage of the credit cycle, as the economy was growing strongly, unemployment had reached new lows, credit spreads had hit pre-crisis lows, leverage was rising and equity markets began moving into expensive territory.

We believe the US is now in the latter stages of the credit cycle. Strong economic growth and elevated asset prices is also a description that is perhaps beginning to seem appropriate for some other major developed economies around the world (although we view most other developed and emerging markets being further behind the US, displaying more mid cycle dynamics).

The Bank of England (BoE) and the European Central Bank (ECB) have committed to a gentle tightening of monetary policy, although Brexit in the UK, ongoing potential political issues in Southern Europe (Greece, Italy and Spain) and a lack of inflationary pressures in the eurozone have made these two central banks tread a much more delicate path than the Federal Reserve (Fed).¹

While noting the difficulties in saying how the current credit cycle will mature and how long it will last, a number of metrics/indicators are commonly used to try to understand how much longer the credit cycle could run.

These affect the level of profitability in credit lending and shorten (or lengthen) the credit cycle. In the following pages, we discuss factors that could:

- Force central banks to tighten monetary policy to control inflation
- Make the global system more susceptible to idiosyncratic shocks by signaling excessive leverage, overconfidence or spending

1. The Bank of Japan (BoJ) has bucked the developed market trend of monetary tightening, maintaining its “ultra-easy” monetary policy, as inflation in Japan remains significantly below the central bank’s target.

MONETARY POLICY AND THE BOND MARKETS

Increasing (decreasing) short-term interest rates, decreasing (increasing) the money supply and increasing (decreasing) reserve requirements for commercial bank assets all indirectly influence the cost of borrowing for companies and individuals and are the main tools that central banks use as a means to restrict (increase) the creation of credit in economies.²

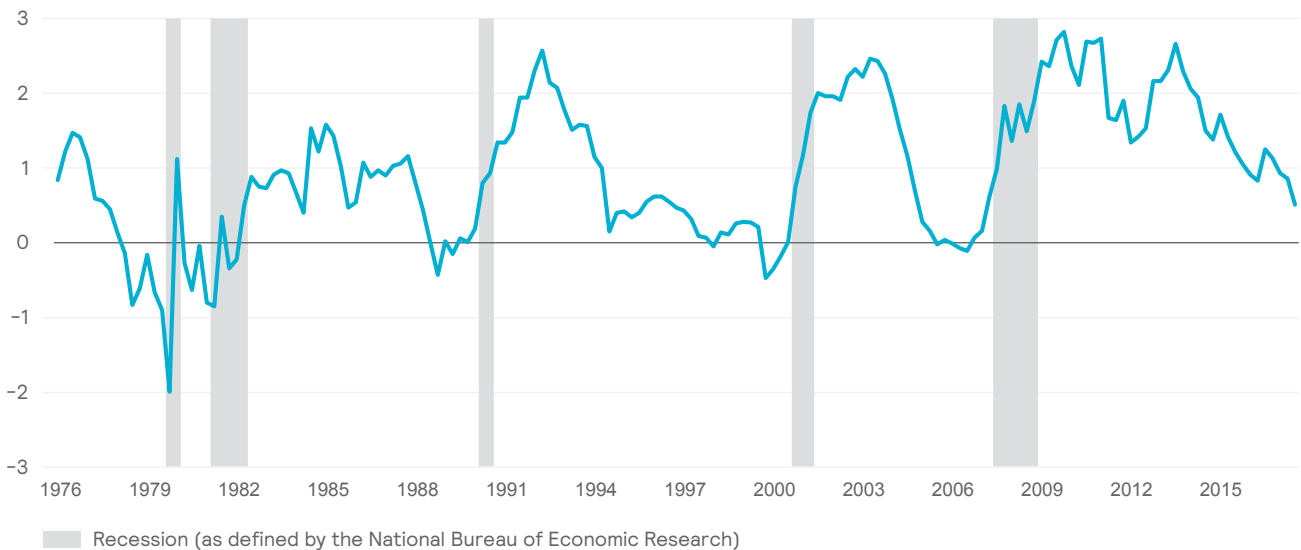
A key feature of the late credit cycle is central banks responding to above-trend economic growth and rising inflationary pressures in an attempt to prevent the real economy from overheating.³ Reactionary measures include beginning to engage in policy choices that would likely increase the costs of borrowing and restrict credit creation.

In the real economy, higher costs of borrowing restrict the number of profitable investment opportunities for companies, concurrently

squeezing profits by increasing the cost to service existing debt. The belief is that this will lead to slower, more sustainable rates of economic growth, without going too far and contracting the economy.

Although longer-term interest rates are influenced by short-term rates – and, therefore, also by central bank policy – they are arguably driven more by the market’s perspective on long-term real economic growth prospects. As a central bank tightens monetary policy in an effort to bring economic growth back in line with the long-term equilibrium level, it is normal to expect long- and short-term interest rates to converge – also known as a “flattening” of the yield curve. As Figure 2 shows, this convergence has been underway for some time now in the US. To a much lesser extent, yield curves in the UK and eurozone have also flattened.⁴

FIGURE 2: HISTORIC TREASURY BILL YIELDS



Sources: National Bureau for Economic Research, Federal Reserve Bank of St. Louis

2. Central banks use these tools to try to stabilize the economy and inflation in the short and long term, respectively.
 3. The Fed and, to a much lesser extent, other developed central banks have begun to increase their central borrowing rate. With market expectations of more Fed rate raises on the horizon, investors are wondering how fast and far interest rates will rise.
 4. This is expected, as the reduction in spread between two-year and 10-year bonds in the US is largely being driven by the Fed increasing short-term borrowing rates more aggressively than other central banks.

If, however, a country's central bank raises interest rates to control inflation without sufficient (according to the market) indications of strong economic growth and emergent inflationary pressure, this could be perceived negatively. When this happens, a situation could arise in which lenders are willing to accept a lower borrowing rate in the long run versus the rate they could receive on short-term lending (known as yield curve inversion) — people are happier to receive a lower rate of return if it means their money is safe over the medium term.

An inverted yield curve has been shown to have good predictive power of recessions,⁵ although this does not imply for the future that:

- Every recession will be preceded by a yield curve inversion.
- Every yield curve inversion will be followed by a recession

It is also unclear whether the yield curve's predictive power will be as strong when quantitative easing (QE) has been depressing long-term borrowing rates.

The current US differential shows a narrowing in recent years, driven by increasing short-term borrowing rates. If this is perceived as the Federal Reserve tightening too much and getting the policy decision “wrong,” we could potentially see a flattening yield curve scenario.

QUANTITATIVE TIGHTENING

Historically, when central banks have decided to tighten monetary policy, this has meant increasing interest rates. Today, following a lengthy period of unprecedented expansionary

monetary policy (that is, QE), a number of central banks have an alternative tool at their disposal to use alongside increasing interest rates — quantitative tightening (QT).⁶

Without a precedent, it is difficult to know how sensitive markets will be to QT, compared to an interest rate increase. Nevertheless, QT appears to be getting underway, and we would expect it, all else being equal, to place upward pressure on bond yields — further increasing the costs of borrowing and restricting credit availability. For further thought on the transition, see our recent paper, [From QE to QT — Building Robust Portfolios](#).

CREDIT LENDING STANDARDS

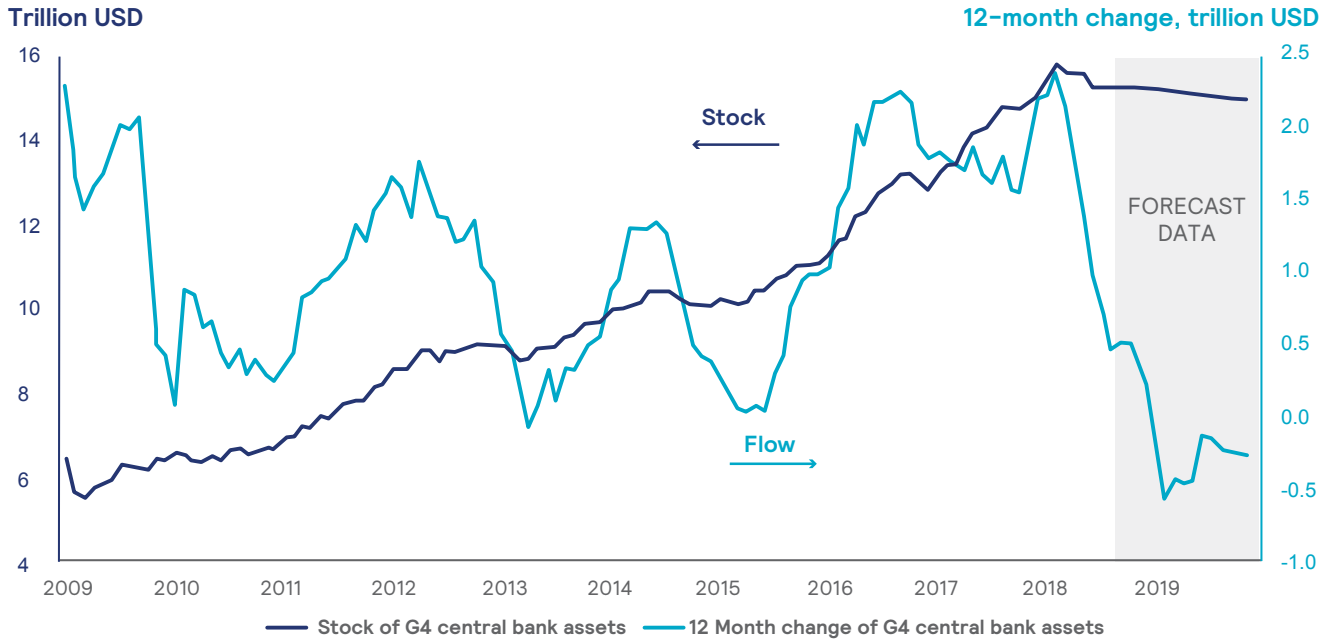
The credit crisis of 2008 was caused by excessive borrowing and risk taking. It was also partly caused by deterioration in lending standards — specifically in the US mortgage market.

Fast forward 10 years, and a key theme in credit markets during 2018 has been the continued expansion in credit alongside a deterioration of credit protection in some key markets. A [Moody's report](#) on the US leveraged loan market pointed to a “high point in the credit cycle,” with deterioration in credit quality as a main talking point. Moody's pointed to a potentially lethal mix of weaker investor protections, a smaller amount of unsecured debt to cushion losses and the demand for loans leading investors further down the rating scale. All told, the average amount that investors are able to recover from defaulted loans could be even lower than it was in 2008, due to the lower protections, which would exacerbate any large negative credit event. As one example: In Europe, 0% of European leveraged loans were “Cov-Lite” in 2011, but by the end of 2017 this had risen to 78%.

5. Every recession since the 1950s has been preceded by a flat or inverted yield curve. It is important to note that while they can help predict recessions, the length of time between the inversion and recession varies, with asset prices rising for another year following the inversion in some cases.

6. QT could involve the selling of bonds that central banks have on their balance sheets, or it could entail simply allowing bonds held to expire, without purchasing more. Most developed-market central banks (notably the Fed, ECB and BoE) have so far opted for the “softer” version, where they let the bonds mature and do not reinvest the proceeds.

FIGURE 3: QE BECOMES QT



Sources: BoE, BoJ, ECB, Thomson Reuters Datastream, Fed, JP Morgan Asset Management⁷

As the supply of credit to markets increases, borrowers’ bargaining power increases, which could explain why we are seeing more contracts that increasingly favor the borrower – but, importantly, offer the lender less protection in the negative default environment of a credit cycle downturn.

If it emerges, this inflationary pressure is then likely to force the hand of central banks, which have agreed on inflation targets to maintain, into tightening monetary policy by raising rates or quickening the pace of QT. This, in turn, would be expected to negatively impact liquidity and credit availability.

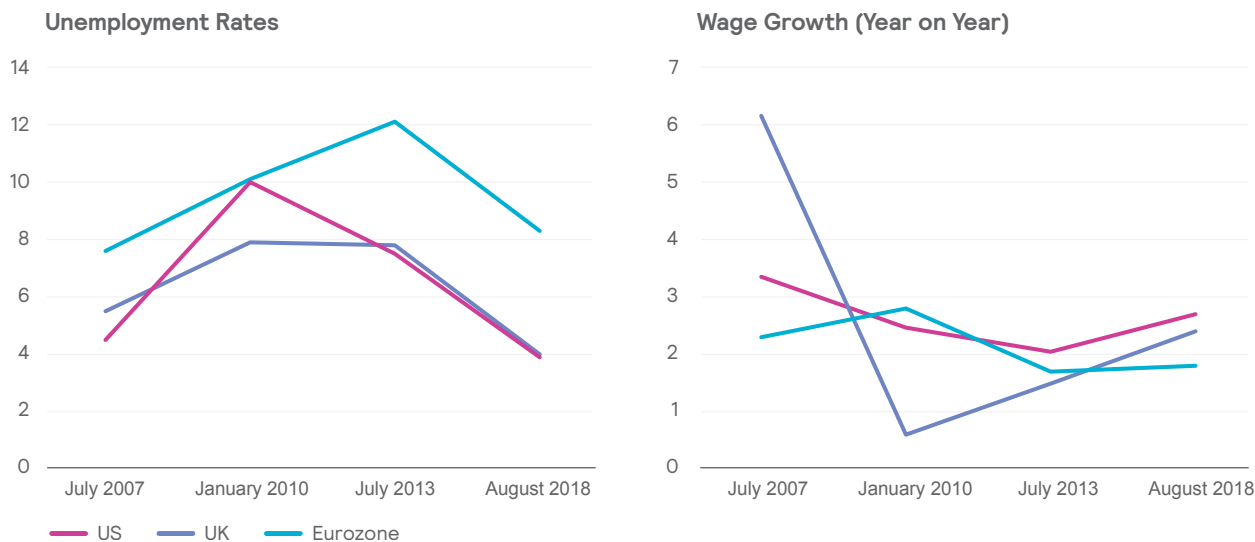
LABOR/OUTPUT MARKETS

Global labor markets appear to be very tight, with the number of people reported as unemployed low and the number of jobs advertised high in several major economies. This can lead to inflationary pressure.

At current earnings levels, equities are no longer as expensive as they have been in recent years. However, rising wages could also reduce the currently high margins corporations have been enjoying, which could have the knock-on effect of reducing corporate earnings.

7. Balance sheet forecast assumptions: BoE to have zero net purchases until the end of 2019; BoJ to have an annual net purchase pace of 20 trillion yen until the end of 2019; ECB to have net purchases of 30 billion euros per month from July 2018 to September 2018 and then reduce monthly purchases to 15 billion euros in October 2018 and to zero net asset purchases after December 2018; Fed forecast is based on a monthly reduction of US\$40 billion per month in the third quarter of 2018, before increasing the monthly reduction to US\$50 billion for the fourth quarter of 2018 onward, depending on the monthly maturity schedule of the balance sheet.

FIGURE 4: UNEMPLOYMENT RATES VS. WAGE GROWTH



Source: Bloomberg, July 2007 (pre-financial crisis); January 2010 (peak unemployment following crisis); July 2013 (eurozone crisis); August 2018 (most recently available)

Although developed countries have seen unemployment reach rare lows but with subdued wage inflation, there is some debate regarding whether the historical relationship between unemployment levels and wage inflation still holds.

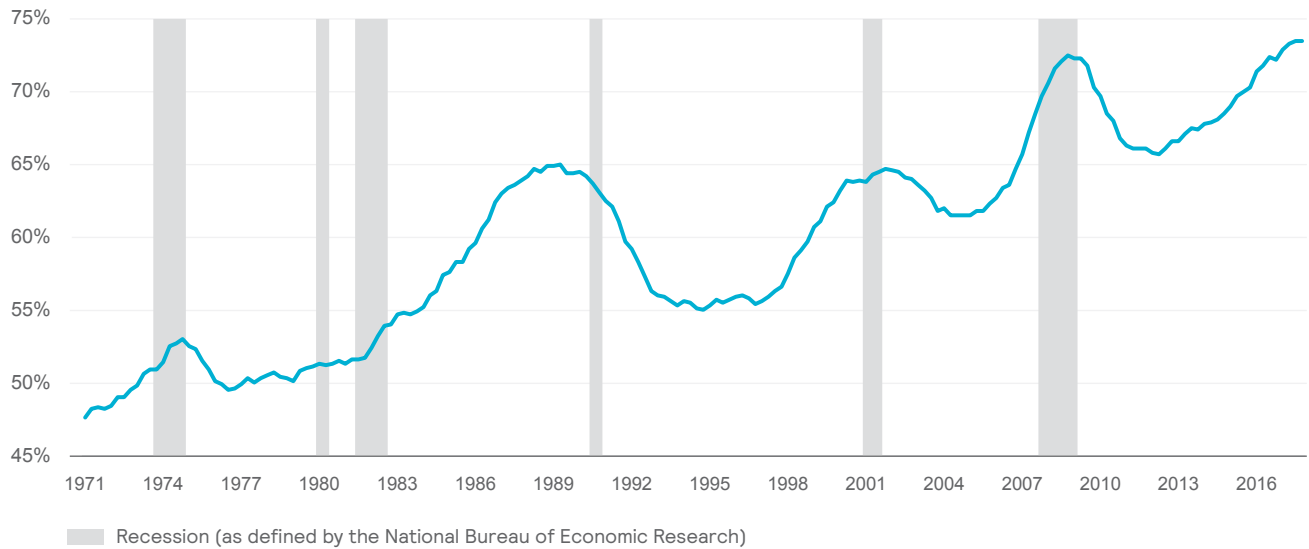
A structural decline in the power of organized labor (trade unions) within developed economies – tilting the balance of power away from labor and toward the owners of capital – may help explain a weakened relationship between unemployment and wage inflation. Some also raise concerns about the suitability of traditional measures of employment.⁸

In a separate paper ([Inflation Awareness – Understanding Inflation and Its Impact on Your Portfolio](#)), we considered several key cyclical and structural drivers that could see a return to upward inflationary pressure in the mid to long term, including the wage effect of demographic trends and changing migration patterns across the globe.

An increase in wage inflation would be expected to lead to a faster rate of monetary tightening, likely quickening the progression of the credit cycle.

8. A measure of “underemployment” (individuals not working, earning or using their inherent skills as much as they would otherwise like to) was discussed at the 16th International Conference of Labour Statisticians in 1998. This measure refers to a labor market where traditional recording of unemployment would not factor in large numbers of workers who would like a higher-paying job or one that better matches their skill set. “Unemployed” people are also only those actively looking for work, with anyone else being outside of the “labor force” and not included in the unemployment numbers.

FIGURE 5: US NONFINANCIAL CORPORATE DEBT TO GDP (%)



Sources: National Bureau for Economic Research, Federal Reserve Bank of St Louis

CORPORATE DEBT

Another potential indicator of where we are in the credit cycle is the level of debt that nonfinancial companies have on their balance sheets.⁹

A person who has a high level of debt outstanding will be more sensitive to rising interest rates than a person with a low level of debt outstanding, as that person is more leveraged and the debt repayments would be expected to increase at a faster pace. With a few more moving parts, the same is true for debt levels of corporations.

As debt levels increase, companies become a lot more sensitive to movements in interest rates (the

cost of borrowing). Any external shock affecting a driver of companies' ability to repay debt (such as retained profits/cash flow/ability to issue equity), alongside high levels of debt, can lead to a "credit crunch" instead of a slow "credit unwind," as defaults lead to higher borrowing costs – which goes full cycle to increase defaults again ("a debt spiral").

As corporate debt increases, the increased sensitivity of borrowers heightens the probability of a downturn, bringing about the end of the late credit cycle, with declines in risky asset prices expected across the board.

9. We focus on nonfinancial corporations, as debt is part of normal operations for banks and other financial intermediaries.

HOW HAVE ASSETS PERFORMED IN LATE CYCLE ENVIRONMENTS?

To help investors to tackle the question of how they should adjust their portfolio allocations in preparation for a late cycle environment, we looked back to previous rate-rise cycles, using the US as a case study.

We defined rate-rise periods as those from 1954 to 2018, with the nominal federal funds rate increasing more than 1% a year for at least one year. Equity and bond returns are the total return from the S&P 500 and 10-year Treasury bills, respectively.

Figure 6 shows the seven most recent of these periods to emphasize how varied, in terms of length and steepness, past rate-rising periods have been.

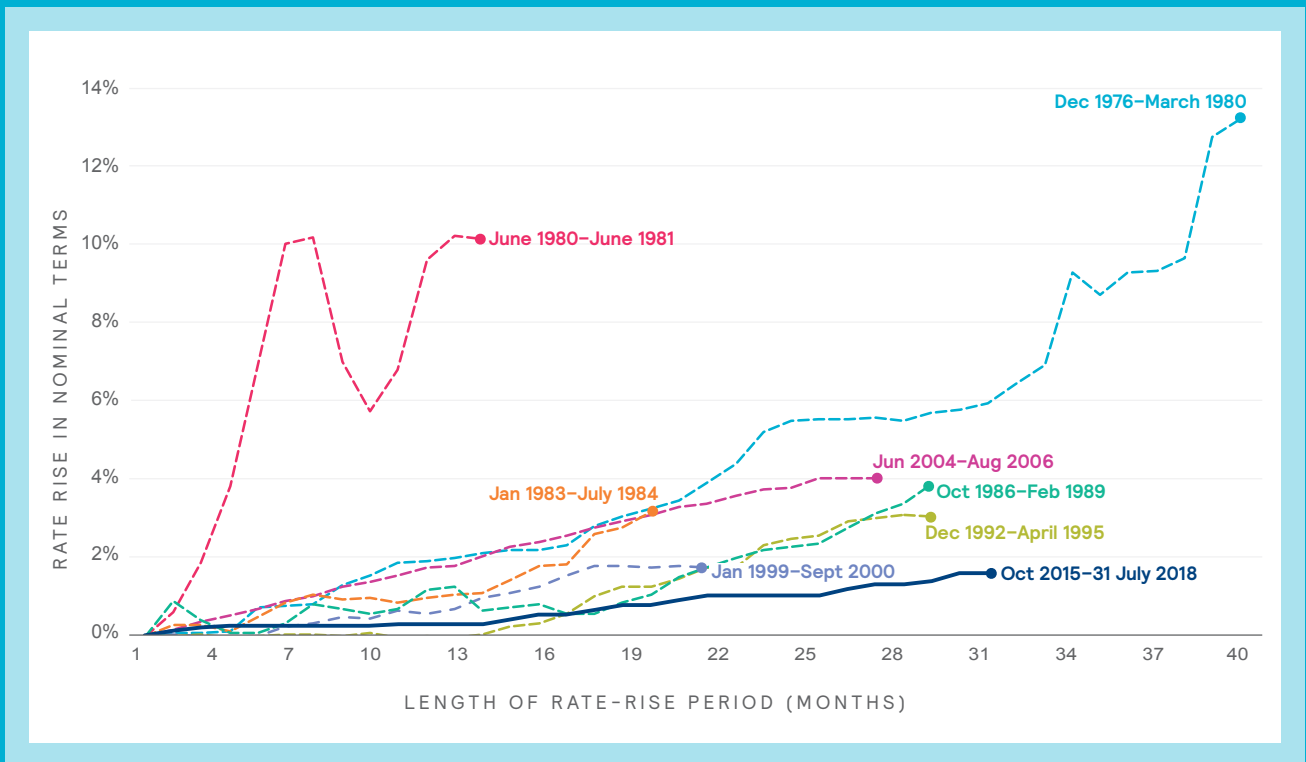
EQUITY RETURNS

Although not in every period, equity returns have largely been positive and strong in the past during periods in which the Fed has been increasing the federal funds rate. In reality, more often than not, the Fed has, in the past, undertaken sustained increases in the federal funds rate only in a profitable economy with strong growth forecasts and increasing dividend pay-outs.

This would contradict the theory (over shorter periods, at least) that equities are valued by discounting future dividends and that as interest rates in an economy rise, equity valuations will fall. Although many equities are valued using discount methods, the discount rates used are stable and/or do not vary largely in the short term. One of the reasons for this stability is faith that central banks will “get monetary policy right.”

Although equities have largely performed well in rising-rate environments, performance in the period that follows (when liquidity tightens and we move from the later stages of one credit cycle to the early stages of the next) has been decidedly more mixed. This is shown by the wide variation of equity returns in the one-year and three-year periods following the end of rate-rise periods, versus the one year and three years leading up to the end (see Figure 7).

FIGURE 6: FEDERAL FUNDS RATE INCREASES DURING EXPANSIONS (REBASED AT 0%)



Source: Federal Reserve Bank of St Louis. Nominal Increases.

FIGURE 7: FORWARD- AND BACKWARD-LOOKING S&P 500 TOTAL RETURNS (AT END OF RATE-RISE PERIODS IN THE US; PER ANNUM; 1954-2018)



Sources: Federal Reserve Bank of St Louis, Robert Shiller; Yale School of Management

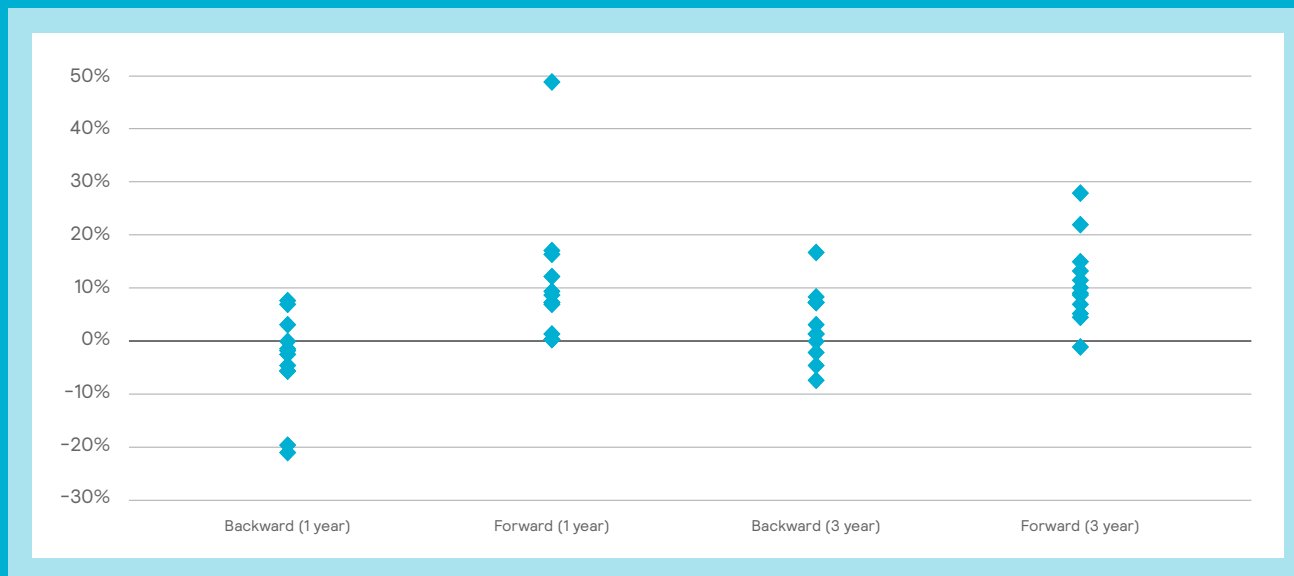
BOND RETURNS

Rising rate periods have more often than not been negative for Treasury bills, which we would expect from assets with high interest rate sensitivity. The range of one-year and three-year total returns (Figure 8) highlights that the interest rate effect should not be considered in isolation, as demand for bonds (particularly US government bonds) can be positively affected by a “flight to safety” from equity markets or negatively affected by inflationary expectations.

Although the current rate rises began some time ago (October 2015), they have been extremely gradual and began from a historic low.

Furthermore, no other period of rate rises has been preceded by QE or accompanied by QT, warranting caution for any historical comparisons for both equity and bond assets.

FIGURE 8: FORWARD- AND BACKWARD-LOOKING 10-YEAR TREASURY BILL TOTAL RETURNS (AT END OF RATE-RISE PERIODS IN THE US; PER ANNUM; 1954-2018)



Sources: Federal Reserve Bank of St. Louis, Robert Shiller; Yale School of Management

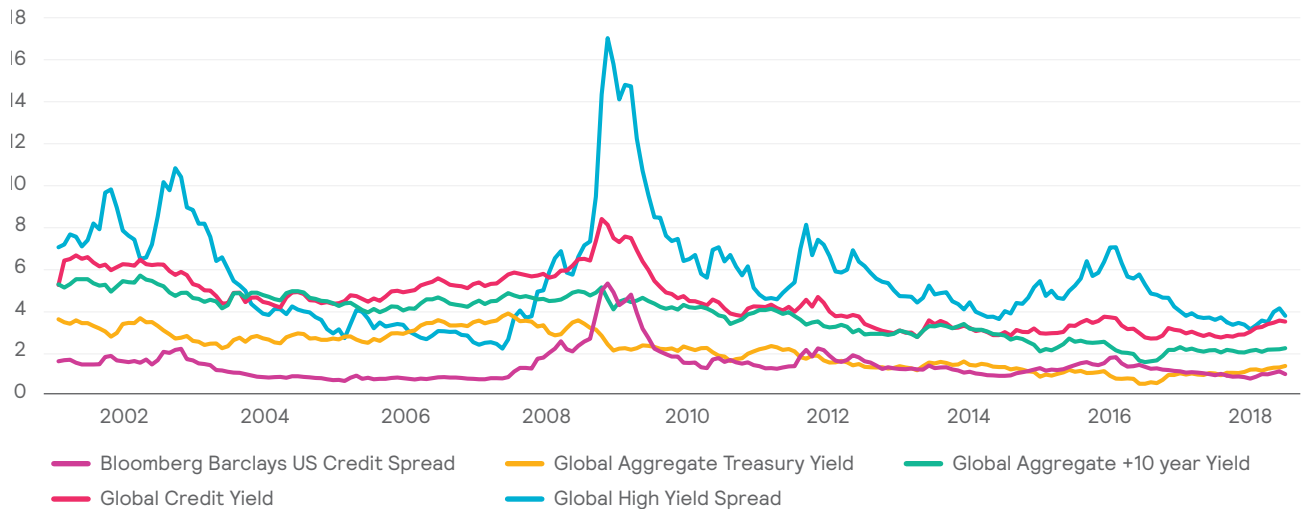
PREPARING FOR LATE CYCLE DYNAMICS

Investor demand for credit assets has driven up the price, even in areas of the market that could have a high rate of default in a credit downturn. A medium- to long-term investor should be wary of buying expensive credit assets as the credit cycle progresses further.

As cyclical conditions continue to evolve across the global economy, investors should also be wary of the potential for yield increases and a return of volatility to markets – in particular, bond markets. For this reason, we consider investment grade credit and high-yield bonds unattractive, with current yields and spreads offering very little upside and high potential for capital losses in adverse credit events.

In the late stages of the credit cycle (up to any credit downturn event), equity markets are likely to benefit from strong economic growth and loose credit conditions. However, as central banks tighten monetary policy, the risks of a sudden reduction in liquidity and the general availability of credit heighten. At this point, equity returns may suffer if the outlook for growth deteriorates.

FIGURE 9: GLOBAL HUNT FOR YIELD



Sources: Thomson Reuters Datastream, Mercer

Assets that are predominately floating rate in nature, such as private debt/loans, should perform well relative to public credit in a rising rate environment. The potential of a rising-rate environment alongside increasing credit risk could also favor investing in liquid alternatives, either specifically in the fixed income universe or in the wider multi-asset universe. These include long/short managers in the equity or credit space, absolute return fixed income managers (who aim to take positions that profit in all credit environments), distressed debt investors (who profit in an environment with significant withdrawal of credit in the latter credit cycle stages) or multi-asset credit managers (who invest across the credit space but with the ability to provide downside protection in the latter stages of the credit cycle).

When choosing managers for mandates of these designs, the risk-adjusted returns generated are highly dependent on manager skill (alpha), and so a high value should be placed on carrying out the appropriate research and selection exercises. Investors without the desire or ability to consider strategies with a significant active component may wish to consider rebalancing any overweight allocations to high-duration assets – and potentially even an increased allocation to cash.



CONCLUSION

The risk that we can't possibly predict when the credit cycle will come to an end means any investor decisions based on trying to time the end of the cycle face the risk of either:

- Taking risk out of the portfolio too early, losing out on potential returns
- Not preparing a portfolio quickly enough, resulting in capital losses

Despite the breadth of indicators suggesting that we are entering the latter stages of the current credit cycle, it is entirely possible that astute monetary policy and a favorable macro-economic environment will lengthen the credit cycle for many more months – even years.

That being said, we currently believe investors would be prudent to consider reducing any overweight positions and be cautious about any new allocations to assets where rising rates and a tightening credit environment would reduce prospective returns. At the same time, investors should stress-test portfolios against multiple scenarios.

Mercer's current dynamic asset allocation is neutral on global equities, and within fixed income is short duration with an overweight to cash and cash proxy funds. For a more up-to-date and detailed overview of Mercer's views and ratings on dynamic asset allocation, please contact your Mercer representative for access to our latest dynamic asset allocation report.

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