On the risk of regime shifts

BlackRock.

The macro debate tends to center on the state of the business cycle and the risk of a recession. We think that this is too narrow a question to ask. We consider a broad range of macro regimes that drive market returns. Our expectations for the current macro regime – and the risks around a potential shift – help shape our tactical asset allocation calls for 2020. Highlights:

- The unprecedented central bank pivot to policy stimulus helped loosen financial conditions last year, cushioning any fallout from the manufacturing-led global slowdown. Yet a puzzling divergence between growth and financial conditions remains. We find that a sharp rise in geopolitical risk helps explain this historically unusual wedge.
- Markets continue to underestimate inflation risks, especially in the U.S. At
 the same time, the consensus still appears to be overestimating the risks of
 a U.S. recession this year. Our financial vulnerabilities indicator shows that
 financial imbalances, a common trigger of recessions over the past few
 decades, are limited at this point even in the record-long expansion.
- Our macro regime work puts the business cycle in a slowdown regime but we could see a shift to a risk asset-friendly goldilocks regime or a market-unfriendly mild stagflation regime. The expected uptick in growth underpins our mildly positive view on risk assets in our <u>2020 Global Outlook</u>. We are overweight Japanese and emerging market (EM) equities, as well as EM and high yield debt. The overlooked risk of upside inflation surprises drives our preference for inflation-linked bonds.
- How would central banks react if growth started to falter? Apart from the
 Federal Reserve, many major central banks have been running out of
 monetary ammunition to deal with the next downturn. We therefore see the
 debate on fiscal stimulus becoming more important as the year goes on.
- Historically low interest rates have opened up new fiscal space in many large economies. We explain why we see even more urgency for governments to set up a framework for coordination between fiscal and monetary policy to adequately deal with the next downturn.

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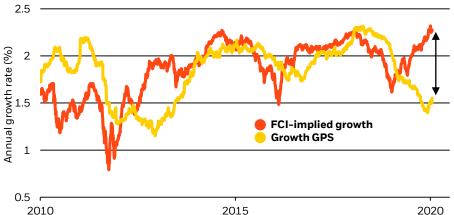
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An unusual gap

BlackRock G3 Growth GPS and Financial Conditions Indicator, 2010-2020



Sources: BlackRock Investment Institute, with data from Bloomberg and Refinitiv Datastream, January 2020. Notes: The BlackRock G3 Growth GPS, the yellow line, shows where the 12-month forward consensus GDP forecast for the US, eurozone and Japan may stand in three months' time. The orange line shows the rate of G3 GDP growth implied by our financial conditions indicator (FCI), based on its historical relationship with our Growth GPS. The FCI inputs include policy rates, bond yields, corporate bond spreads, equity market valuations and exchange rates. Forward-looking estimates may not come to pass.

Macro and Market Perspectives
January 2020

BlackRock **Investment** Institute

Growth views by region

U.S.

The U.S. expansion has become the longest on record, but growth has been slowing – partly due to trade policy uncertainty, past policy tightening and weak investment spending. Growth will inch closer to trend and resource utilization rise above normal in 2020. Easier financial conditions are unlikely to get full traction given geopolitical uncertainty, limited spare capacity and weak external demand. Consumer spending remains the backbone of growth, supported by strong job gains, rising wages and healthy household balance sheets. Lower mortgage rates are boosting spending, too. Unemployment is already below the level typically seen as being consistent with full employment and labor costs are starting to pick up. These costs are being absorbed by profit margins – but, alongside tariffs, could stoke higher consumer prices. Modest inflation overshoots are unlikely to concern the Fed given that it is keen to re-anchor inflation expectations symmetrically around its 2% goal, as its strategy review will emphasize. This will likely be emphasized in the Fed's strategy review. The budget deficit remains substantial and government debt is rising steeply. There are domestic economic risks around excessive borrowing by the non-financial corporate sector. Non-bank lending could give rise to financial vulnerabilities, paving the way for rising risks.

Euro area

Euro area growth could rise towards trend as global trade growth recovers, one-off drags diminish, and the inventory cycle turns. But the starting point is weaker than expected. Policy remains expansionary, but uncertainty about future trading relationships could weigh on capex. A continued rise in the household saving rate could limit consumer spending. Germany and Italy were most affected by the 2019 downturn, reflecting a stronger reliance on manufacturing. France and Spain – both more reliant on domestic services – have weathered the slowdown better but have yet to show signs of stabilization. The labor market has been resilient. But hiring intentions are being scaled back and consumer concerns about the labor market are rising. A modest increase in wages has failed to translate into higher inflation. A persistent inflation undershoot could tilt the balance towards further ECB easing unless fiscal policy comes to the rescue. Fiscal easing of meaningful size is unlikely. Progress on the institutional architecture underpinning the Economic and Monetary Union is slow. Negative interest rates and bond yields could further weaken banks, insurance companies and pension funds. The UK may see an investment-led recovery on prospects of an orderly Brexit, domestic political stability and the planned increase in public spending. This should push growth above trend and drive a pick-up in domestic inflation. Even if this recovery materializes, the Bank of England is considering near-term stimulus to reinforce any recovery.

Japan

Japan's growth picked up in 2019 due to a moderate recovery of consumer spending and robust business investment. Domestic demand was boosted by fiscal measures. Yet Japanese manufacturing is vulnerable to trade tensions and softer Chinese demand. U.S. protectionism also remains a risk, at a more limited level after the September 2019 Japan-U.S. Joint Statement. The negative effect of the October 2019 consumption tax hike on 2020 GDP growth should be partly offset by fiscal stimulus and the 2020 Tokyo Olympics. Growth should return to potential in late 2020. The declining working-age population has caused the ratio between job openings and applicants to rise to the highest level the mid-1970s, supporting business investment and wage growth. Wages have also risen thanks to an increase in minimum wages and tax incentives, yet headline inflation is projected to edge up to just 1.5% by the end 2021 – below the Bank of Japan's (BOJ) 2% target. Past episodes of value-added tax hikes ended up pushing the economy back into deflation once the one-off effect of the tax increase disappeared. The BOJ maintains an expansionary policy and could even ease further. Temporary fiscal measures should be withdrawn in 2021 in line with the government's plan to achieve a primary surplus by fiscal 2025.

China

China is slowing as it shifts from a credit-intensive growth model. Growth is projected to decline gradually as the economy continues to rebalance, trade tensions remain elevated and an ageing society starts to weigh. Investment is still supported by infrastructure and real estate. Monetary conditions, tightened by the crackdown on shadow banking, are being eased modestly via broad-based cuts to bank reserve requirements, a new prime rate lending mechanism and a cut in the rate on the People's Bank of China's medium-term lending facility. Fiscal policy supports consumer spending amid deteriorating confidence. But China's policy stance may only ease incrementally. We believe China's government has a diminished appetite for the kind of large-scale stimulus that boosted growth in past downturns. The government is emphasizing leaner and cleaner growth driven by consumer spending and private enterprises instead of the traditional channels – infrastructure spending and state-owned enterprises (SOEs). This reflects a desire for currency and financial stability. The rebalancing reduces capital flows to loss-making SOEs and redirects them to private sector firms. There are near-term risks to China's economy around frictions with the U.S., and long-term risks around financial stability concerns.

ЕМ

EM economies have more space for monetary and fiscal policy easing than developed market (DM) economies. The dovish pivot by the Fed in 2019 and a stable, if not weaker, US dollar in 2020, should protect this policy space and allow EM economies, asset markets and currencies to recover. In 2014-15, market pressures forced EM economies to aggressively adjust, reducing any macroeconomic imbalances. Relatively few countries still have large current account deficits or runaway inflation, and so EM currencies are generally performing well against the U.S. dollar. Over the past 18 months, surging trade tensions have caused a slowdown in manufactured goods production. But the protectionist push was not further exacerbated by terms-of-trade shocks such as the collapse in commodity prices seen in 2014-15. Another commodity super-cycle, or even a reduced mini-upcycle, seems unlikely as the Chinese economy is stabilizing and rebalancing. Risks are tilting towards a gradual decline in inflation-adjusted commodity prices. Several EM economies were hit by country-specific shocks over the past 18 months, including a liquidity crunch in India, a balance-of-payments shock in Turkey, political changes in Mexico, a drawn-out pension reform process in Brazil and the spectre of another debt restructuring in Argentina – all spooking markets. But as these headwinds relent, EM activity should pick up. EM Asia could be an early bird in the recovery as the inventory cycle turns in its favor and China policy stimulus gains traction. There are also signs that the semi-conductor cycle is turning.

Growth inching higher

Global growth should edge higher in 2020, reducing perceived recession risks. The dovish pivot by central banks that eased financial conditions materially in 2019 is largely behind us - but still needs to filter through to the economy. At the same time, inflation risks - especially in the U.S. - seem underappreciated given rising wage pressures. Finally, the current Iull in US-China trade tensions could end abruptly or geopolitical tensions could escalate.

2020 will mark a big shift from 2019's dynamics. An unusual late-cycle dovish turn by central banks helped offset the negative effect of trade tensions. The Fed's dovish pivot looks to be over for now. Any meaningful growth support in the euro area would have to come from fiscal policy, and we do not see this in 2020. Emerging markets (EMs), however, still have room to provide monetary and fiscal stimulus. We see financial markets driven by macro fundamentals in 2020 rather than policy developments, as in 2019. Our base case is for a mild pickup in sequential GDP growth in developed markets (DM), supported by easier financial conditions but limited by elevated policy uncertainty and little spare capacity. We also see a slight rise in U.S. inflation pressures – and a material risk for a more pronounced pick-up in inflation pressures. We see China's economy stabilizing but detect little appetite for large-scale policy stimulus.

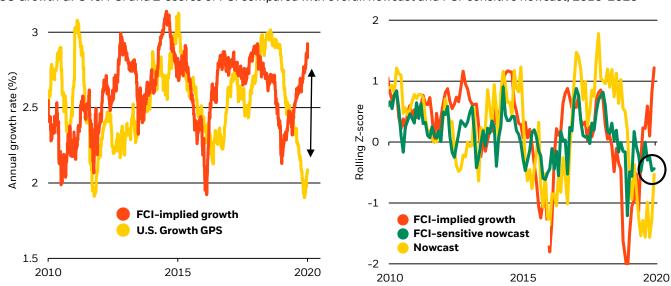
One macro puzzle that has cropped up over the past year: why the large loosening of financial conditions has not translated into stronger GDP growth as much as it seems to have in the past. Has the transmission channel from financial conditions to growth broken down – and are market expectations for a growth recovery in 2020 misplaced? This is a troubling prospect, suggesting central banks are becoming less effective in driving growth higher. But we don't think that's the case. Dissecting our proprietary indicators, we find certain strong, reinforcing shocks that offset supportive financial conditions. Elevated trade policy uncertainty has become a drag on confidence and investment, while the weakness in global trade has also been surprisingly sharp. These offsetting factors are closely interrelated: the uncertainty has contributed to the trade weakness but is also tied to China's slowdown. This goes beyond trade weakness and reflects the impact of Beijing's attempts to deleverage and rein in shadow banking.

When looking at how our Growth GPS has historically reacted to changes in our financial conditions indicator (FCI), we find that over the past year growth has far underperformed relative to what the FCI would have implied. See the gap in our U.S. Growth GPS and FCI in the chart below. Yet if we account for our BlackRock Geopolitical Risk Indicator (BGRI) to reflect the rise in geopolitical uncertainty, we find a stronger relationship (more on the next page). So the delay of an FCI-driven growth rebound can be explained by shocks to world trade growth and elevated geopolitical uncertainty.

Not all sectors of the economy are sensitive to financial conditions. The more sensitive sectors are mostly housing and construction (via interest rates), and to a lesser extent trade (via exchange rate swings) and manufacturing (via the confidence impact of stock prices). When teasing out the sectors from the nowcast component of our U.S. Growth GPS that are sensitive to the FCI - the green line in the chart on the right - we don't see as much of a decline as signaled by the nowcast. And the nowcast has recently rebounded sharply to almost match the FCI-sensitive nowcast, suggesting that easing trade tensions and a bottoming out in global trade are helping growth inch up. Global growth in 2019 was also buffeted by a series of one-off factors, such as automaker strikes in the U.S., car emission rule changes in Europe and disruptions to global aircraft production. So trade can help explain the slowdown relative to FCI-implied growth and now the broader nowcast is starting to recover on steadying trade tensions and a stabilization in global trade.

Uncertainty drag

US Growth GPS vs. FCI and Z-scores of FCI compared with overall nowcast and FCI-sensitive nowcast, 2010-2020



Sources: BlackRock Investment Institute, with data from Refinitiv Datastream and Haver Analytics, January 2020. Notes: The chart on the left shows the U.S. Growth GPS in yellow and the US FCI in yellow using the same methodology described on the previous page. The chart on the first shows the rolling Z-scores of U.S. Growth GPS, nowcast (actual economic data and excluding big data inputs), the nowcast components most sensitive to the FCl and the FCl. The FCl-sensitive nowcast is derived using regressions on the co-movement between the nowcast components and the FCI. The rolling Z-score is on a 36-month window with a greater emphasis on the most recent 12 months. A Z-score of 1 means a 1 standard deviation move relative to a long-term mean.

Gauging trade policy uncertainty

The surge in trade protectionism in recent years marks a sharp reversal from decades of increasing openness to global trade and capital flows. This protectionist push has an adverse impact on the near-term growth outlook in at least two ways: a direct hit to growth due to the actual tariff implementation and an indirect hit from slowing business spending as policy uncertainty rises and business confidence suffers. This trade policy uncertainty has served as a key driver of global economic activity – and financial markets – over the past two years. The de-escalation between the U.S. and China, reflected in the phase one trade deal signed this month, may help tensions level off this year.

Three metrics are useful when seeking to measure trade policy uncertainty. We compare the IMF's World Uncertainty Index (WUI), the Federal Reserve's Trade Policy Uncertainty (TPU) index and our BGRI of market attention to global trade policy. The left-hand chart below shows the three indicators in raw form. We find that all three indicators are negatively correlated with global trade and industrial production growth, as would be expected. Of the three indicators, the BGRI shows the strongest relation to global industrial production. The relationship with global trade, by contrast, is comparable between the three indicators.

The correlation between the BGRI and world trade growth strengthens if we shift the BGRI forward relative to world trade growth, suggesting that the BGRI leads world trade growth. The strongest negative correlation is one quarter ahead – a rise in the BGRI coincides with weaker trade activity. See the right chart below. The negative correlation of the TPU and WUI with world trade growth only arises in the past few years. Meanwhile, the BGRI shows consistent signaling power over the entire period we assessed back to 2005.

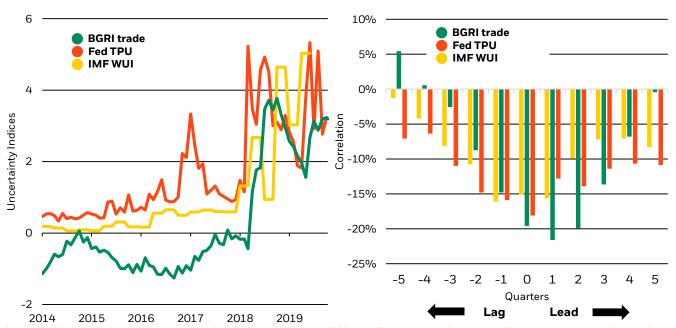
Our work on the cross-correlations of all three indicators with world trade growth highlights some advantages of the BGRI for global trade tensions compared with the other two. The BGRI shows the strongest negative correlation with trade activity, behaves as a leading indicator - by about one quarter - and is more timely. The BGRI can be updated daily in real time if needed. The TPU correlation peak is coincident with world trade shifts, while the WUI has no clear lead or lag with trade - perhaps due to its quarterly frequency.

Risk assets have historically reacted in a risk-off manner to spikes in the BGRI. One exception: Asian government bonds have barely budged when the BGRI has risen, underperforming developed market government bonds in these periods potentially due to Asia's exposure to trade. The current environment is similar to the 2015 global industrial production recession - and it is hard to disentangle the effect of trade tensions from the broader slowdown. China's slowdown is tied to its campaign against leverage, and its reaction to the slowdown is domestically focused - meaning a smaller boost to the rest of the world than past stimulus efforts. Our BGRI reinforces the role trade policy uncertainty has played in the slowdown, as highlighted on the previous page. Some are watching for signs of a European growth rebound as a harbinger of global growth given it has been the region leading the global slowdown since 2017.

We see an important risk that the market is not pricing in and is one consequence of the protectionist push happening at a time when the U.S. economy is near full employment – a further rise in inflation as growth settles at lower levels.

Tracking trade uncertainty

The BGRI trade policy index and other uncertainty indexes plus their correlations with world trade, 2014-2019



Sources: BlackRock Investment Institute, with data from Refinitiv Datastream, January 2020. Notes: The chart on the left shows the IMF's World Uncertainty Index (WUI), the Fed's Trade Policy Uncertainty (TPU) index and the BlackRock Geopolitical Risk Indicator (BGRI) on market attention to trade policy. The WUI is constructed from quarterly Economist Economic Unit country reports. The TPU and BGRI are based on language analytics, using different sources. BGRI methodology can be found here. The chart on the right shows the correlation of world trade growth to each uncertainty measure on a lead/lag basis at quarterly horizons.

Overlooked inflation risk

We see inflation risks as underappreciated. Our base case is for modestly higher U.S. inflation in 2020, with a risk of upside surprises. Drivers include rising wages, capacity utilization and energy prices in the short term, and deglobalization over the long term. The U.S. labor market boasts the lowest unemployment level in nearly half a century and wage gains are near their strongest in a decade. We believe the Fed will likely allow temporary inflation overshoots and see a high bar for it to raise interest rates.

Over time we also see the risk of a regime shift that raises inflationary pressures while dragging on growth. Supply shocks stemming from structural trends such as deglobalization are one potential trigger. Geopolitical and trade frictions could disrupt global supply chains. This would reduce productivity growth and reinforce a slowdown in potential growth, while pushing up input costs. When such supply shocks dominate, stock and bond prices often have moved in the same direction, as discussed in our 2020 Global Outlook.

We are keeping a close eye on the pass through of higher labor cost pressures to consumer prices. The chart on the left below shows a breakdown of US wage growth by various drivers since 2008. The positive bars show a contribution to the annual change relative to the long-term mean wage growth, and the negative bars a drag. What is notable is how employment has flipped from being a drag on wages to being a positive contribution, a reflection of a tight labor market. At the same time, the counterweight from productivity gains has diminished over time as firms appear to be running short of ways to offset higher wages. Higher labor costs are bad news for profit margins, as we detailed last year in our March 2019 <u>Macro and market perspectives</u>.

And if inflation were to pick up more materially while growth stays subdued, major economies – notably the U.S. – could inch toward mild stagflation. The productivity hit from deglobalization, via the dislocation to global value chains and due to the capital shallowing seen since the global financial crisis (GFC), can also contribute to a stagflationary economy. This is not about a return to 1970s-style stagflation – just a less favorable growth/inflation mix where inflation rises to just above the Fed's 2% target even as annual growth slips below potential (1.75%). This is one of the risks our regime work has flagged. We spell this out in more detail on pages 7-9.

Such a modest inflation overshoot is unlikely to concern a Fed keen to re-anchor inflation expectations symmetrically around its 2% goal. The emphasis on symmetry in the Fed's inflation target has taken on greater importance in its communication strategy and is why we think the U.S. central bank will be on hold in 2020, with only a material shock to growth or financial conditions likely to prompt a policy easing. This symmetry will likely be emphasized in the Fed's upcoming strategy review that may also see the Fed adopt a soft form of average-inflation targeting (more on page 10). A resumption of Fed interest rate hikes appears even further distant.

Wages on the rise

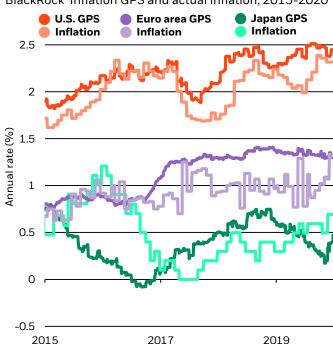
US wage drivers, 2008-2019

1 0.5 0 Annual changae (%) Wages -1.5Core CPI **Employment Productivity** Other factors -2 -2.52008 2010 2012 2014 2016 2018

Sources: BlackRock Investment Institute and U.S. Bureau of Labor Statistics, with data from Refinitiv Datastream, January 2020. Notes: This chart shows the annual change in the Employee Cost Index and the annual change of various implied components relative to their respective means from 1996-2019. The decomposition is similar to that done by former Fed Chair Janet Yellen in a $\underline{\text{September 2015 speech}}$.

Inflation divergence

BlackRock Inflation GPS and actual inflation, 2015-2020



Sources: BlackRock Investment Institute, the U.S. Bureau of Labor Statistics, Japan's MIC and Eurostat, with data from Refinitiv Datastream, January 2020. Notes: The inflation GPS lines show where core consumer price inflation may stand in six months' time in each economy. The other lines show actual inflation as represented by the core Consumer Price Index in the U.S. and Japan, and the core Harmonized Index of Consumer Prices in the euro area. Forward-looking estimates may not come to pass.

Limited recession risk

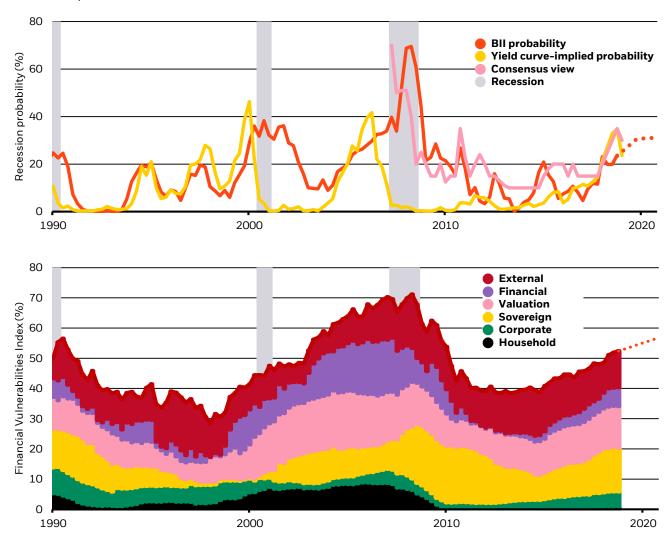
Our BII recession probability model shows a one-in-four probability of a U.S. recession in the next 12 months. In 2019, slowing growth prompted many forecasters to dust off recession models. When the yield curve briefly inverted in the second half of the year, a probability based on the curve and the Bloomberg consensus were both showing rising chances of a recession. See the top chart below. We disagreed with this view. Yield curve-based estimates are distorted by the decline in term premium embedded in long-term interest rates. And understanding recession risks does not depend on the yield curve's shape or the ups and downs in monthly activity data.

We see financial vulnerabilities as the key trigger of a recession So it is important to gauge whether financial vulnerabilities are building underneath the surface and making the U.S. economy more susceptible to shocks. Our financial vulnerabilities index (FVI) is climbing gradually but doesn't suggest any imminent risk to the expansion.

Financial sector vulnerabilities are limited given the post-crisis regulation that has strengthened the banking system. Corporate sector vulnerabilities are rising but are not out of line with history, and household risks are much lower than in the past. See the bottom chart below. Risk asset valuations and the external sector jump out the most as potential risks. This is not say that there are no risks in certain market segments. But in total, the risks don't seem material enough to push the recession risk higher. Longer term, the recent monetary policy easing could facilitate a further build-up of financial vulnerabilities. The resulting risks will require ongoing monitoring. Projecting the current dynamics forward based on the Fed's growth projections hints a slight increase in the recession probability over 2021/22, as the chart below shows.

Steady recession risks

U.S. recession probabilities and breakdown of BlackRock's FVI with recession bands, 1985-2020



Sources: BlackRock Investment Institute, with data from Refinitiv Datastream, January 2020. Note:: The top chart shows the estimated four-quarter ahead probability of a U.S/ recession. The recession probability is estimated by gauging the probability of that future growth – projecting a four-quarter average of GDP based on recent data trends – below a certain threshold. The probability is based on an adjusted distribution of historical GDP data relative to GDP, our FCI and our FVI. The threshold is consistent with growth rates seen during U.S. recessions since 1985. The 2019 and 2020 probabilities are based on a range of likely outcomes of financial conditions, financial vulnerabilities and growth. The bottom chart shows a break of our FVI. The FVI is based on six sources of vulnerabilities: the financial sector, corporate sector, households, sovereign debt, external vulnerabilities and asset valuations. The FVI is an aggregate measure of these sources of vulnerabilities whose extremes have historically been associated with periods of financial stress. Forward-looking estimates may not come to pass.

Identifying macro regimes

It is important to understand what macro regime currently dominates and how it could evolve. Yet it is even more important to understand whether the regime could switch altogether and what kind of regime might come next when assessing the tactical outlook for financial market returns and asset allocation. Traditional approaches to gauging where the economy is in the business cycle often miss some key dimensions and overlook alternative regimes to the current one, according to our ongoing work on regime identification and potential changes.

We have built a comprehensive set of macro regimes – based on the interaction of growth and inflation – to drive our asset return expectations, starting with the U.S. economy. We zero in on four interacting cycles with two dimensions each that jointly drive investment outcomes: a business cycle (demand vs. supply), a financial cycle (credit conditions and leverage), a policy cycle (monetary vs. fiscal) and a risk cycle (macro uncertainty and market resilience). We then analyze all possible combinations to identify persistent regime patterns and estimate regime transition probabilities that is, we let the data do the talking rather than impose a view based on our priors. We uncover an array of potential regimes but find only six that have shown persistence since the 1960s - see the table below: goldilocks, hawkish squeeze, reflation, running hot, slowdown and stagflation. We look separately at the rare case of recessions, which can hit risk assets hard but are already well defined. Despite the uptick in growth, we will likely remain in a slowdown regime.

We then look at the risks around each regime by identifying which macro shocks are likely behind the dynamics of the respective cycle. We use, for instance, the growth-inflation mix to assess to what extent the business cycle is likely to be driven by demand or supply shocks. We find some intuitive results. Those include how supply and demand shocks overlap with the equity-bond correlation, how the interaction of monetary and fiscal policy affects bond yields or how changes to bank credit supply affect credit spreads. This framework also allows us to map out in an interactive way how different cycles and their key drivers signal which regime is dominant at any given moment - rather than looking at each in isolation. Incorporating uncertainty - macro, financial and policy - adds another layer of richness to the risk/return profile. The result? A nuanced view on what the evolving regimes mean for our tactical asset allocation framework.

The table shows our assessment of the current slowdown regime. We could see a shift into goldilocks if growth were to accelerate beyond our expectations and inflation to moderate on the back of the trade de-escalation. Alternatively, a growth undershoot and stronger inflationary pressure, potentially caused by supply shocks as a result of deglobalization. That could push the economy into mild stagflation - in this case, an unfavorable mix of disappointing growth and upside inflation surprises. What have returns been like in these regimes? Goldilocks historically has seen positive returns for most assets, led by equities. Equities have held their ground in stagflation, with government bonds suffering on the back of higher inflation.

So when trying to determine what the macro environment means for returns and tactical asset allocation, these different regimes and the probability of regime shifts matter more than any estimates of relatively rare recessions, in our view.

Current macro regime

Slowdown: Decelerating growth and inflation; rising uncertainty accompanied by monetary easing. Our base case: Uptick in growth back to trend; no monetary easing surprises. **Potential regime shifts** Goldilocks: Growth-Stagflation: Slowing supportive policy with little inflationary pressure and credit expansion. Other regimes Hawkish squeeze: Decelerating growth and inflation while monetary policy is tightening.

Reflation: Supportive policy and low uncertainty; accelerating growth and inflation.

Running hot: Monetary policy tightening to limit vulnerabilities, including inflation and financial.

Regime switching

We have identified the key regimes we find that tend to define the macro environment, as described on the previous page. But what matters for asset returns is the potential transitions between different regimes and the probability of such a change over the course of the cycle: investors should calibrate the likelihood of a potential regime switch over their investment horizon. The combination of the probability of a regime switch and the type of regime that could materialize next can determine the risk/reward profile of a tactical asset allocation. Financial markets should reflect these shifting calibrations in real time. Hence, investors need to also track changes in macroeconomic dynamics within a given regime as they will hint at the probabilities of a transition to another regime.

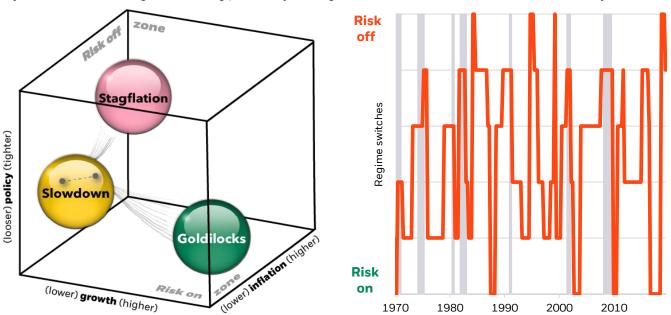
A simplified, well-known example is an estimate of recession probability that rises and falls as the risk changes over time, as with the yield curve-implied probabilities on page 6. Yet such estimates only track the business cycle and exclude the other dimensions that make up our macro regime framework. Our macro regimes show a considerable persistence from one quarter to the next – about an 80% probability of remaining in the same regime for most of them – based on data over the past 50 years, including for the current slowdown regime. The least favourable regime for risk assets – hawkish squeeze, or periods when the overall monetary and fiscal policy setting is overly tight – is the least persistent one (about 60%). And these regimes tend to move through a stylized sequence rather than jump from one regime that is most positive for risk assets to another that is the most negative.

We assess these regimes across multiple dimensions and try to gauge the similarity of the current regime to our six, as well as the distance to other regimes. The chart below illustrates this concept by looking at three macro dimensions: growth, inflation and monetary policy. The yellow bubble highlights the current macro regime – slowdown, in place since a late-2018 hawkish squeeze prompted the sharp pivot towards looser monetary policy. The other two bubbles represent the regimes that our framework deems the most likely candidates for a potential regime switch in 2020: goldilocks and stagflation. As growth and inflation dynamics change over the course of the year – and if the monetary policy stance is adjusted in response – the macro regime will move and the probability of a shift to a new regime rises. A more formal way to track the movement within multiple dimensions is the so-called Euclidean norm – or simply put, a way of measuring distance when there are multiple dimensions. The macro configuration is in constant flux: moving towards the center of a regime or approaching a switch. Our regime designations are based on how the current configuration – based on several dimensions – fits with our stylized summary of historic macro environments. The Euclidean norm quantifies the aggregate measure of distance from today's regime configuration to the configurations that define other regimes, even if more than three dimensions are considered.

The chart on the right shows how our macro regime changes map to history. While there are moves to the most extreme risk-on or risk-off regimes, those are relatively rare. The regimes that occur most frequently over time hover in between the extremes – with the latest swing in 2017-2018 serving as a rare exception that highlights how unique this expansion – and the resulting policy response – has been.

Regime change

Stylized view of macro regime switching probability and regime identification with recession bands, January 2020



Sources: BlackRock Investment Institute, with data from Refinitiv Datastream, January 2020. Notes The chart on the left shows a stylized view of how macro regime switching could look in our framework. The chart on the right illustrates regime switches across the six dimensions that make up our simplified breakdown of six macro regimes. States are ordered heuristically to rank from the most favorable for risk assets (risk-on) to the least favorable (risk-off) based on our working looking as cross-asset performance during our regimes going back to the 1960s. For example, the lowest regime is one where growth is accelerating with favorable credit and monetary conditions. This has historically coincided with a positive backdrop for risk assets. On the other hand, the most risk-off regime corresponds to the most constraining macro environment when central bank policy is extra tight, which has historically coincided with a negative backdrop for risk assets. For illustrative purposes only. Subject to change without notice.

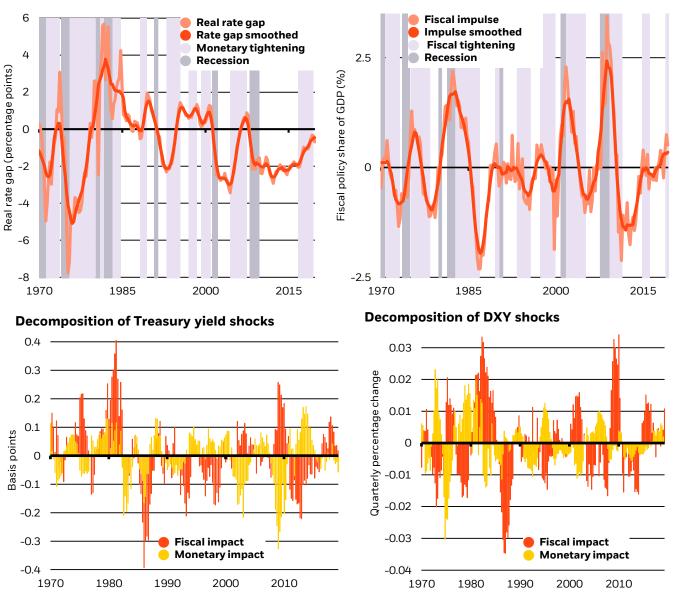
Switches and shocks

In the current debate, what matters is whether stimulus comes from monetary or fiscal policy. The top chart on the left shows U.S. monetary policy regimes and recessions, depicting the gap between real short-term rates and our estimate of neutral rates (see more here). A rising gap indicates a monetary tightening regime, as seen until most recently. The top chart on the right shows the fiscal policy contribution to GDP, with a rising line indicating a positive contribution and a falling line indicating a negative contribution. This allows us to see how the monetary and fiscal mix plays out and which is more dominant at any given moment.

This also matters for markets and returns. We then look at these relative shifts to tighter and looser monetary and fiscal policy and see what happens with U.S. 10-year Treasury yields and the U.S. dollar index (DXY) in the bottom two charts below. The bars show whether the overlapping policy setting is pushing yields and the dollar up or down. The sharp shift in fiscal policy was a major driver of yields and the dollar in the 1970s and early 1980s, driven by the major policy swings at the time. We can also see how monetary policy has stayed loose – negative neutral rates – since the GFC, even with the Fed's rate increases from 2015-2018. Yet for both the U.S. dollar and yields, fiscal policy swings have also been important drivers in the post-crisis period and have played perhaps an underappreciated role.

Gauging the interplay of monetary and fiscal shocks

US monetary and fiscal policy cycles and their impact on Treasury yields and the U.S. dollar, 1970-2019



Sources: BlackRock Investment Institute, U.S. Bureau of Economic Analysis and the Hutchins Center on Fiscal and Monetary Policy, with data from Refinitiv Datastream and Haver Analytics, January 2020. Notes: The top two charts show the real interest rate gap and the net fiscal policy impact on GDP, both in percentage points. For the real rate gap, we show the actual data and a smoothed version that is a nine-quarter centered moving average from 1970-1985 due to the higher volatility of the data, then after 1985 a five-quarter centered moving average. For the fiscal impulse, we show a seven-quarter centered moving average. We highlight the periods when monetary and fiscal policy are tightening, as well as U.S. recessions. The bottom two charts show the co-movement of monetary and fiscal shocks on U.S. Treasury yields and the U.S. dollar (DXY index). A monetary easing shock is defined as one where U.S. yields and the dollar fall. A fiscal shock is defined as one where a rise in the U.S. federal deficit leads to higher U.S. yields and a stronger dollar. Looking at the co-movement allows us to break down how much monetary and fiscal shocks play a role in these market moves.

Policy pause for now

We see monetary and fiscal policy on pause in 2020, with less scope for monetary policy easing and other positive policy surprises than in 2019. Instead we expect the debate about fiscal policy to intensify. The bar for further easing by the Fed looks to be high unless there is a material shock, such as a significant growth slowdown or an unwanted tightening in financial conditions. The bar to Fed rate increases is probably even higher. Elsewhere, the European Central Bank (ECB) and the Bank of Japan may need to deliver further monetary easing given persistent inflation undershoots. But both central banks have limited policy space left and the side effects of negative rates — particularly on bank profitability and lending — increasingly seem to undermine their policy efforts. Monetary policy looks set to stay very accommodative across the G3, with rates well below their neutral levels.

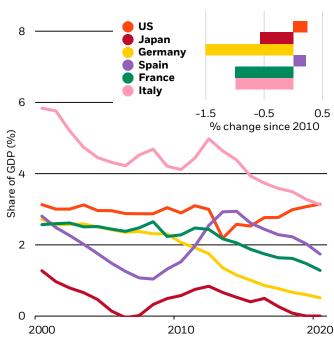
Fiscal policy could potentially move the policy dial this year. Fiscal easing would not only provide a cyclical boost to demand. In addition, infrastructure investment would also improve long term-growth prospects and absorb excess savings. Countries have fiscal space from falling interest rates shrinking the net cost to borrowing – the chart on the left shows the trend and net change in the past two decades. Only the U.S. and Spain have bucked the trend due to much higher debt levels. Fiscal stimulus could potentially reinforce the upward pressure on bond yields. Despite some encouraging developments in countries such as Japan and the UK, we don't see greater fiscal stimulus happening at a global scale over the next 12 months. Any fiscal policy support would likely need to come from outside the U.S.: notably Europe and Japan, as well as EM ex-China. U.S. fiscal policy will likely feature prominently in the in the 2020 election.

The Fed and ECB will both be focused on their respective strategy reviews, with the Fed releasing its review in mid-2020 and the ECB possibly later in the year. These reviews will focus on structural issues that we will delve into more on the next page. The Fed will mainly focus on whether a gradual move to average-inflation targeting or price-level targeting will help to anchor inflation expectations more firmly around the 2% core PCE target. The ECB will likely cast its net wider. It might take a fresh look at which inflation metric is best suited, the appropriate definition for price stability as well as make-up strategies. The ECB's review could also assess the role of money and credit and the implications of climate change. Contrary to the Fed, the ECB might therefore end up recalibrating its price stability objective and clarifying its symmetric nature by changing the wording of its price stability definition. Such a change could be more important for financial markets than a simple commitment to inflation make-up strategies.

The strategy reviews will assess how the operational set-up for monetary policy needs to change. But we believe bigger policy considerations are needed. Monetary policy is nearly maxed out in Europe and Japan. The chart on the right below shows how monetary policy is reaching its limits in the euro area: unlike in the U.S., the loosening of financial conditions has not translated into better growth even among those sectors that have historically been most strongly influenced by FCI changes. We reiterate our proposal for policy coordination to deal with the next downturn on the next page.

Room to borrow and spend

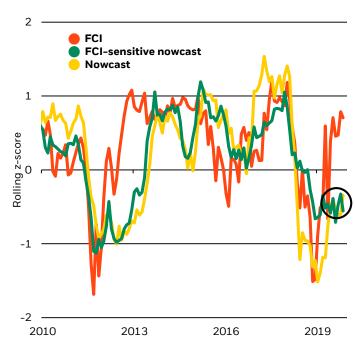
DM net interest cost as share of GDP, 2000-2020



Sources: BlackRock Investment Institute and Organization for Economic Cooperation and Development, with data from Refinitiv Datastream, January 2020. Notes: The chart shows each country's net interest cost as a share of GDP with forecasts for 2020 based on budget plans.

Reduced monetary oomph

Euro area nowcasts and FCI, 2012-2020



Sources: BlackRock Investment Institute, with data from Refinitiv Datastream and Haver Analytics, January 2020. Notes: The chart shows the rolling Z-scores of the euro area Growth GPS, nowcast (actual economic data and excluding big data inputs), the nowcast components most sensitive to the FCI and the FCI. The FCI-sensitive nowcast is derived using regressions on the co-movement between the nowcast components and the FCI. The methodology is the same as the chart on page 3.

Policy coordination needed

Fiscal policy will need to become the main policy lever in a future downturn. Monetary policy – both conventional and unconventional – essentially works through lower interest rates. Lowering rates across the yield curve helps stimulate demand by reducing the cost of financing investment or consumption. It also gives investors incentives to rebalance into riskier assets, in principle reducing the cost of capital for companies. But policy rates are near their effective lower bound – especially in the euro area and Japan – and the scope for longer term rates to fall is limited. Monetary policy cannot provide much more stimulus through this channel – a liquidity trap situation.

Fiscal stimulus, which doesn't rely on lowering rates, is the obvious option if monetary policy is tapped out. Fiscal space has been created thanks to the sharp drop in debt servicing costs, as highlighted on the previous page. There is a strong case globally for spending on infrastructure, education and renewable energy to boost potential growth. Yet fiscal policy is typically not nimble enough because it takes time to agree to politically and implement – and thus it has been easier to resort to monetary policy. The chart below highlights how coordinated policy easing has been the exception rather than the rule since the GFC. With global debt at record levels, major fiscal stimulus could also raise interest rates or stoke expectations of future fiscal consolidation, undercutting its stimulative boost.

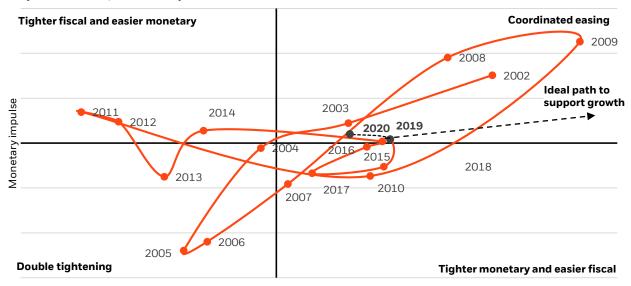
Any additional measures to stimulate economic growth will have to "go direct" – when a central bank credits private or public sector accounts directly with money. This will mean subsidizing spending, and such a measure would be fiscal rather than monetary by design. This can be done directly through fiscal policy expansion that is financed via additional money creation, or by expanding the monetary policy toolkit with an instrument that will be fiscal in nature, such as credit easing by way of buying equities. This implies that an effective stimulus would require closer coordination between monetary and fiscal policy – be it implicitly or explicitly.

In a downturn, the only solution is for a formal – and historically unusual – coordination of monetary and fiscal policy. Our stylized proposal, detailed in our August 2019 <u>Dealing with the next downturn</u>, we suggest an explicit coordination through a standing fiscal facility activated and funded by the central bank. The facility will be strictly limited to an extreme situation – a liquidity trap – and calibrated in size with a pre-defined exit point: reaching an explicit inflation objective. A credible stimulus strategy would help investors understand what will happen once monetary policy space is exhausted and provide a clear gauge to evaluate the systematic fiscal policy response. Spelling out a contingency plan in advance would increase its effectiveness and might reduce the stimulus ultimately needed. Our proposal differs to the unorthodox prescriptions of modern monetary theory, which advocates using monetary financing in all circumstances and downplays inflation risks.

Policymakers will likely find themselves blurring the boundaries between fiscal and monetary policies to fight the next downturn. This threatens the hard-won credibility of policy institutions, potentially opening the door to uncontrolled fiscal spending and the risks that entails. Thus it raises important governance questions – and underscores the need to put guardrails around such policy coordination as we detail in our paper.

Limits to stimulus

Monetary and fiscal impulses in major economies, 2002-2020



Fiscal impulse

Sources: BlackRock Investment Institute, with data from Refinitiv Datastream, January 2020. Notes: We used weights based on GDP in purchasing power parity terms in the calculations. Monetary impulse refers to the change in the gap between inflation-adjusted real policy rates and neutral rates in G3 economies (the U.S., Japan and euro area). Neutral rates are estimated based on our November 2018 paper, taking into account financial cycle dynamics. Fiscal impulse is defined as the change in the cyclically adjusted primary budget for G3 and China. 2020's estimated path implies mild fiscal stimulus consistent with views from the IMF, OECD and brokers, and an additional 10 bps of monetary easing in G3 countries. The impact of monetary easing in China is not included when calculating the fiscal impulse due to its limited influence on growth and the lack of a consistent estimate for the neutral rate.

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