Morgan Stanley | RESEARCH

IDEA

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Global Macro Briefing

The Fundamentals Are Fine

Market turbulence has not derailed solid macro fundamentals. We forecast an only temporary inflation spurt and continued economic recovery. As the cycle matures, monetary policy normalises and fiscal policy eases, equilibrium interest rates increase only gradually given the safe-asset shortage.

Still stronger for longer:

Despite recent market turbulence, the macro fundamentals of our stronger-for-longer growth call remain in place. But they are not what worries investors. It's the perceived rise in inflationary pressures and the accompanying rise in interest rates.

No need to apply the central bank brakes:

In our view, DM economies are unlikely to overheat over the forecast horizon. Hence, we expect the inflation spurt that is likely to set in after Easter to level off in 4Q18. As a result, monetary policy would normalise only gradually and, at least this year, will remain broadly accommodative.

Slow lift-off for natural rates:

In addition, equilibrium long-term real interest rates are unlikely to have risen materially given the modest pickup in potential output growth and the continued shortage of safe assets due to higher risk aversion, increased liquidity needs, and elevated central bank holdings following the global financial crisis.

Financing still easy to get:

Thus far, the spike in volatility has not fed into much tighter financial conditions. Hence, it is unlikely that the recent sell-off will push the economy into a downturn. But the combination of rising inflation pressures and seasonal data disappointment could challenge our constructive view in 2Q.

Beware the 2Q inflation spurt and activity data disappointments:

Prospects of a cyclical and probably also secular economic revival without an accompanying sharp rise in natural rates should be reassuring for investors. Such reassuring fundamentals are worth bearing in mind once the dataflow turns less supportive for risk assets in the second quarter.

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Exhibit 1: Morgan Stanley forecasts at a glance

	2017E	2018E		2019E	
	MS	MS	Cons.	MS	Cons.
GLOBAL	**3.7**	**3.9**	**3.9**	**3.8**	**3.8**
G10	**2.2**	**2.2**	**2.3**	**1.9**	**2.0**
US	2.3	2.6	2.7	2.1	2.3
Euro Area	2.5	2.1	2.2	1.9	1.9
Japan	1.6	1.3	1.3	1.5	1.0
UK	1.8	1.1	1.4	0.8	1.5
EM	**4.7**	**5.0**	**4.9**	**5.0**	**4.9**
China	6.9	6.5	6.5	6.3	6.3
India	6.3	7.5	7.4	7.7	7.4
Brazil	0.7	3.1	2.5	3.4	2.7
Russia	1.5	2.3	1.9	1.8	1.8
MW Global*	3.2	3.3	3.3	3.1	3.1

Source: Morgan Stanley Research forecasts; *Refers to global GDP weighted by long-term market exchange rates instead of PPP weights, given for comparison.

Key Macro Risk Events

WEDNESDAY, FEB 21 - EUR PMI Composite, US FOMC Meeting Minutes

THURSDAY, FEB 22 - EUR IFO Business Climate, JPY CPI

What's Inside

The Fundamentals Are Fine

Macro fundamentals are in fine form

After two wild weeks in the financial markets, the dust now seems to have settled somewhat. In light of the sharp fall in equity markets and the surge in volatility over the last two weeks, we are **checking in with the economic fundamentals behind our global macro outlook** (see 2018 Global Macro Outlook: Stronger for Longer, November 26, 2017). In assessing whether our baseline narrative "Stronger for Longer" still holds, we are also asking whether the financial market gyrations of the last few weeks are likely to materially affect our bullish outlook for the global economy. The answer is no. That said, looking ahead to 2Q, we highlight the combination of the marked rise in DM inflation rates we are forecasting and a historical pattern of negative growth surprises between April and June (see 2018 Global Strategy Outlook: A Tricky Handoff (26 Nov 2017)).

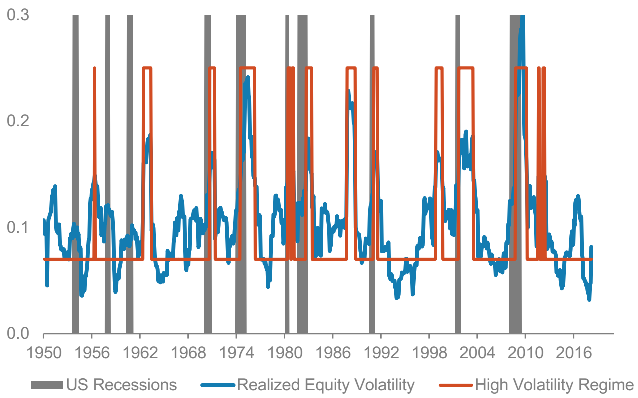
Real interest rates unlikely to rise materially

In our view, **it is not the growth outlook that is the key concern at the moment, it is the rise in interest rates.** Hence, we complement our probe of the economic fundamentals by a discussion of the potential changes to the long-term equilibrium level of interest rates. We present evidence that a shift away from secular stagnation caused by a recovery in productivity growth is unlikely to push the equilibrium level of interest rates materially higher. We would argue that a persistent shortage of safe and liquid assets will likely provide an important offset factor for rising potential growth.

Recession risk remains remote

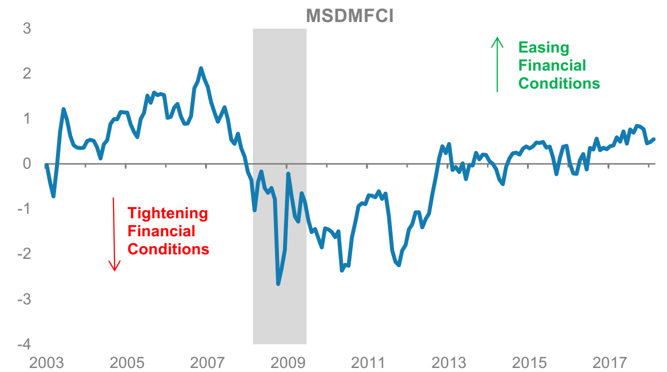
The economic fundamentals remain very favourable. Growth is still set to get stronger, and inflation pressures are muted for the moment. **The spike in market volatility has not been sufficiently persistent to tighten broad financial conditions materially.** Our DMFCI does not show a material tightening in financial conditions based on the data available thus far, including the latest financial market variables. Hence, financial conditions are still accommodative. On balance, we deem it therefore **unlikely that the recent equity market sell-off will lead to full-blown economic recession.** Reasons we would cite arguing against a recession at the current juncture include the relative calm in credit markets, easy bank credit conditions, a sound banking system, limited consumer leverage, muted wage gains and no signs of an overheating economy.

Exhibit 2: Vol Spike Did Not Trigger Full Regime Shift Yet



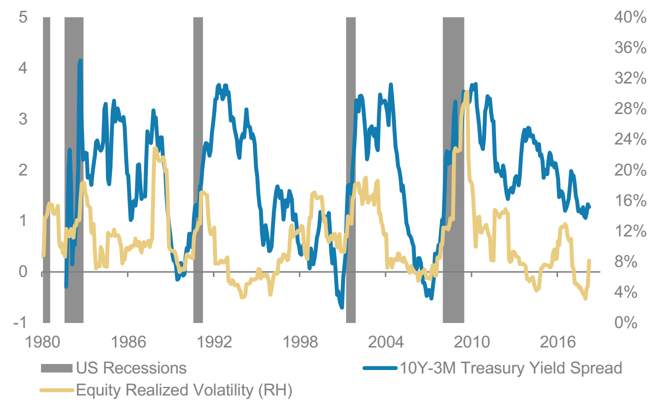
Source: S&P, NBER, Morgan Stanley Research
Note: We calculate high-volatility regime using the algorithm for computing probability index in Chauvet, M and Hamilton, J (2007). Dating Business Cycle Turning Points.

Exhibit 3: Broader Financial Conditions Still Staying Easy



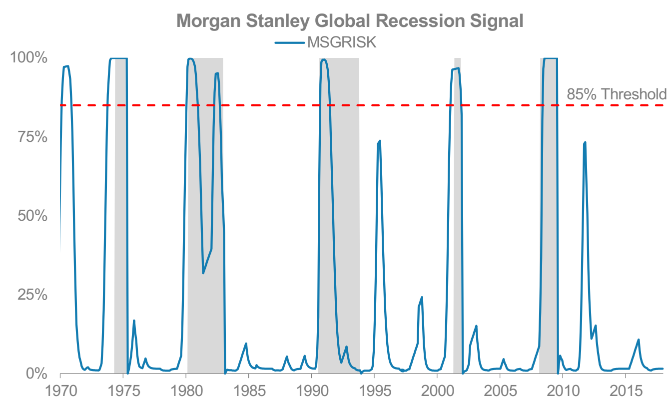
Source: Morgan Stanley Research

Exhibit 4: Steeper Yield Curve Argues Against Rising Recession Risk



Source: S&P, FRB, NBER, Morgan Stanley Research

Exhibit 5: MSGRISK Not Pointing to Recession Risk Either



Source: OECD, Morgan Stanley Research. MSGRISK is computed using the algorithm in Chauvet, M and Hamilton, J (2007). Dating Business Cycle Turning Points. MSGRISK signals a imminent recession when it crosses the 85% threshold. A reading near zero corresponds to the unconditional recession probability of 19%.

Markets more nervous near the peak

Naturally financial markets could become more nervous as we are getting closer to the peak in the cycle. Contrary to most macro economists and business cycle dating committees (like the NBER or the CEPR), who define the cycle by the peak in activity levels or capacity utilisation, market practitioners tend to focus on the peak in growth rates. In the business cycle, the peak in the growth rate already precedes the peak in activity levels – ah, the miracles of the mathematics. While it is good to be early, clearly **not all peaks in growth rate are followed by a peak in activity and a recession.** Hence, financial markets – notably equity investors – can get spooked more easily. In this context, it was reassuring to see that neither the government bond nor credit markets moved closer to pricing a higher recession risk.

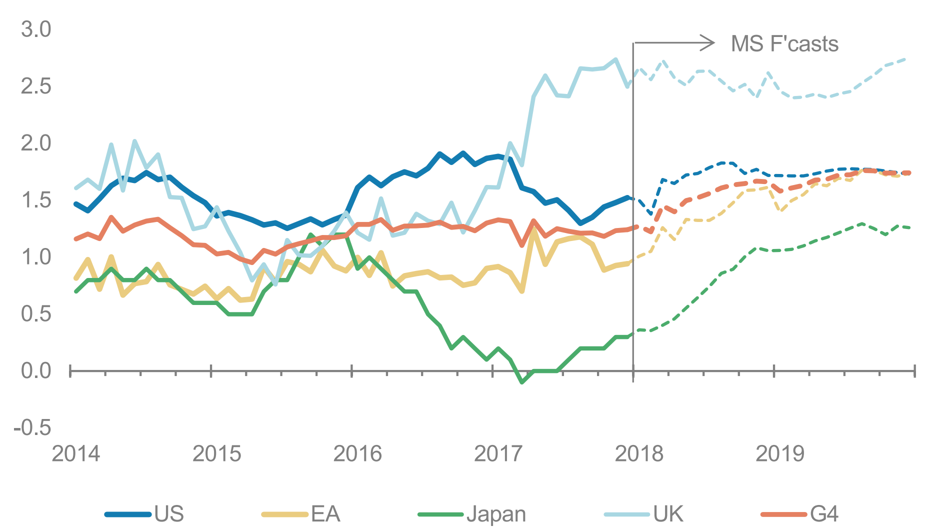
Little tolerance for inflation surprises

At the current juncture, **it is not so much the concern about a deceleration in economic activity, but an acceleration in inflation pressures that seems to be spooking markets.** A somewhat dubious average-hourly-earnings read in the January US labour market report was sufficient to set off alarm bells. The February 2 report seems to have triggered the initial sell-off as it was interpreted as a sign of an overheating economy. In our view, statistical quirks due to an unseasonally high number of workers having been off work and other one-off effects suggest that the highest AHE print recorded since June 2009 likely exaggerated wage inflation (see Payrolls & Wages: Firming Wage Trends, February 2, 2018). Note that in the context of a pickup in trend productivity growth, a 2.9% pay rise cannot be viewed as excessive either. The market reaction **underscores the limited market tolerance for upside surprises in inflation** indicators at the moment, we think.

Beware the coming rise in inflation

While we expect inflation pressures to remain under control over the medium-, policy-relevant term, **we are forecasting a material increase in core inflation near term** – and for that matter headline inflation – in the second and third quarters of this year. The marked rise should push the underlying trend inflation towards, but by and large not above, G3 central bank targets in the second half of the year. But a steep increase in inflation, which will first show in the March euro area HICP numbers due in late March and be underpinned by the April US CPI in mid-May, **could make for uncomfortable watching for market participants.** On our forecasts, it won't be before the October inflation prints are in that it will become clear that inflation stabilised again near central bank targets. Meanwhile, additional fiscal easing in the US is stoking the fire further, especially now that the debt ceiling issue has been resolved. And it might take a while before deregulation and automation start to soften supply-side constraints in a visible way (see Global Macro Briefing: Secular Shift Away from Stagnation, January 11, 2018 for details).

Exhibit 6: G4 core inflation expected to rise sharply over the course of 2Q18



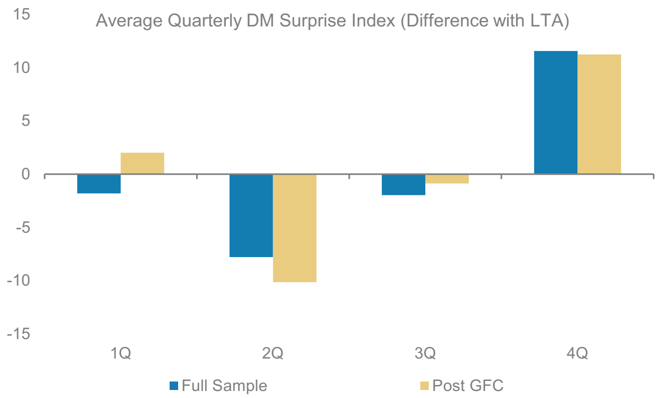
Source: National sources, IMF, Morgan Stanley Research forecasts

Mind the typical 2Q growth curse

Unfortunately, the phase of material increases in inflation dynamics we are forecasting coincides with the part of the year in which incoming economic activity data have historically surprised on the downside, in particular in the US. We are concerned that a **combination of potential upside surprises in inflation and downside surprises in activity indicators after Easter might not sit well with financial markets.** Note that the tendency to see sizeable downside surprises in the activity data between April and June seems to be largely limited to the US where the seasonal pattern observed since the Global

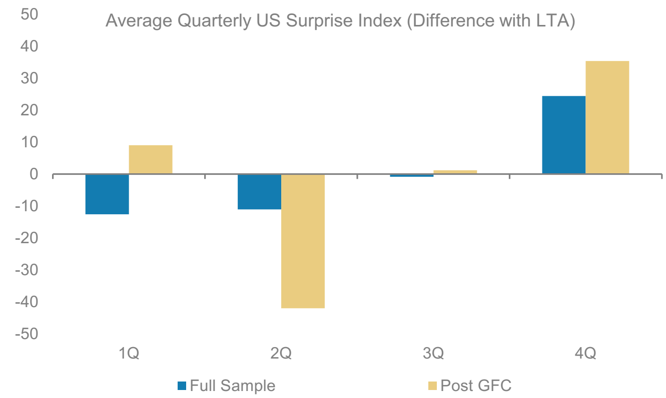
Financial Crisis (GFC) is likely related to the well-known problem with the seasonal adjustment of the first quarter GDP data. The fact that such systematic downside surprises are not observed in other parts of the world, such as Europe, should provide some reassurance to investors. But it will probably take until 4Q18 before the data surprises turn positive again – at least if historical seasonals are anything to go by.

Exhibit 7: DM data surprises tend to be on the downside during 2Q



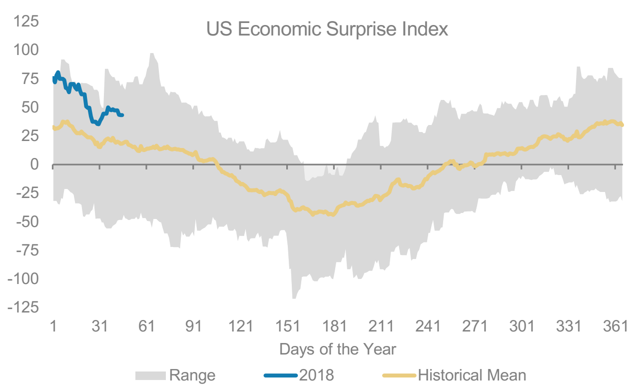
Source: Citigroup, Morgan Stanley Research

Exhibit 8: Culprit for the data disappointment in 2Q is the US



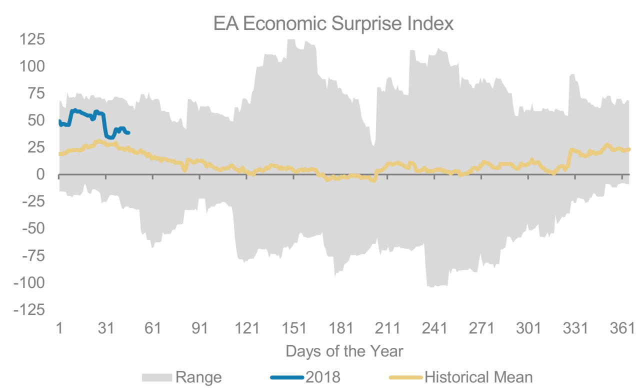
Source: Citigroup, Morgan Stanley Research

Exhibit 9: US data watching started 2018 with sizeable upside surprises near top end of the range



Source: Citigroup, Morgan Stanley Research

Exhibit 10: Euro area data watchers also saw upside surprises, but not at the top of the range



Source: Citigroup, Morgan Stanley Research

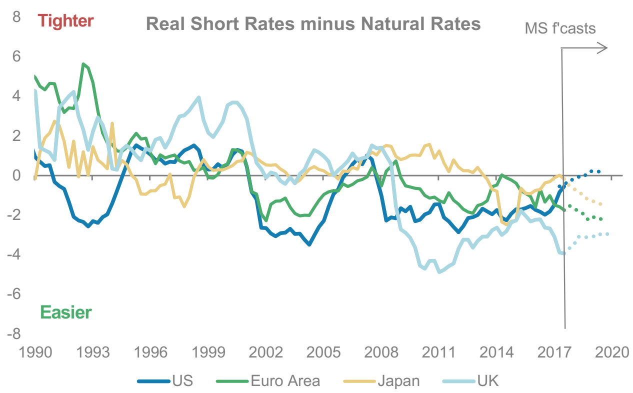
Monetary policy main swing factor

Much will depend on how the monetary policy outlook evolves in the light of the incoming data. Based on their official commentary thus far, **central banks are unlikely to react swiftly to the sell-off by putting the process of policy normalisation on hold**. On our forecasts, Fed is still likely to hike in March, June, and September before hitting the pause button in 4Q. In this context, it is worth bearing in mind that last year's equity market rally and dollar depreciation, as well as the easing in financial conditions they implied, did not cause the Fed to materially alter its policy rate forecasts. Despite Fed Chair Powell's comments on remaining "alert to any developing risks to financial stability" at his swearing-in ceremony, it is not clear whether this alertness is going to translate into near-term policy implications for the FOMC as a whole.

Forecasting minds over financial markets

Only if economic forecasts would get impacted materially by market gyrations, the monetary policy outlook might change. **At this stage, we don't see a need to adjust our economic forecasts in a material way.** We expect the same to hold for central bank forecasts/projections. In this context, it is important to bear in mind that, even though US monetary policy has been tightened steadily, it remains accommodative. On our forecast, it will likely take until next year before real short rates will push past their long-term equilibrium, i.e., the natural rate of interest, in the US.

Exhibit 11: G4 real rates below their neutral levels, US to rise above neutral next year



Source: ECB, FRB, BoE, IMF, ACDC, OECD, BEA, MIC, Morgan Stanley Research
Note: Natural Interest rate estimates are from Holston, Laubach and Williams (2016) for UK, US and Euro Area. Japan estimates from BoJ.

Exhibit 12: Real interest rates sitting at the top of the five-year range

Source: Bloomberg, Morgan Stanley Research forecasts

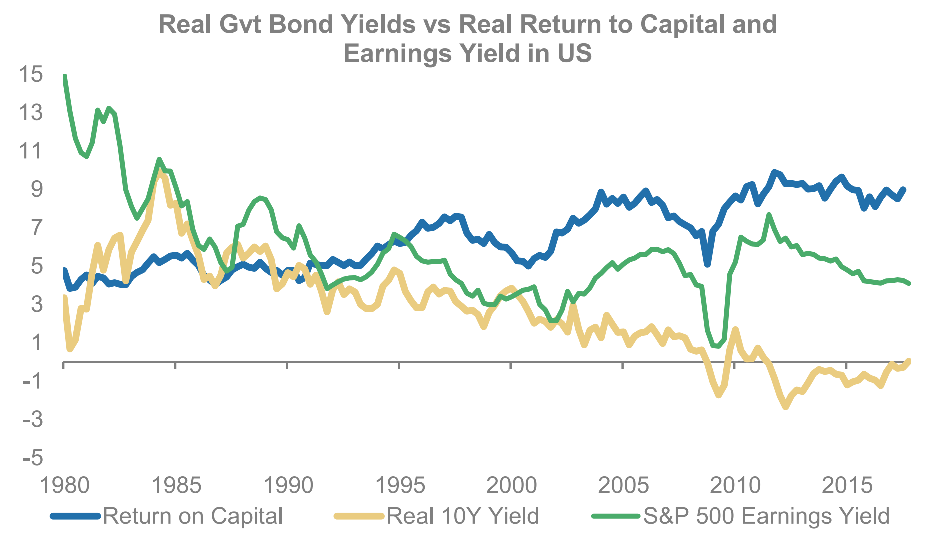
In it for the long-term equilibrium interest rate

Several factors, including stronger economic growth, easier fiscal policy, and higher inflation pressures, have pushed real interest rates higher in recent months. Our cross-asset strategy team highlights the crucial importance of real interest rate dynamics as rising real interest rates can cause stocks markets and government bonds to sell off simultaneously. To frame the discussion on the interest rate outlook, we find it helpful to **distinguish between market-based real interest rates and the long-term equilibrium rate of interest or natural interest rate.** This allows us to assess whether fundamentals driving long-term equilibrium interest rates – an important anchor for monetary policy rates over the course of a tightening cycle – have changed materially. While a detailed discussion on the driving forces of the persistent decline in interest rates is beyond the scope of this note, we would recall that the academic debate lists different factors, including a decline in potential output growth, a secular rise in saving preferences, demographic trends, a prolonged shortfall in demand, and a shortage of safe and liquid assets, as potential explanations (see for instance T Laubach, J Williams 2006; R Gordon 2015; B Bernanke 2005; L Summers 2014; R Caballero et al 2014; and M del Negro 2018 et al.).

Mind the gap between safe-asset and risk returns

The factors at play in driving the long-term equilibrium interest rates are intertwined. Such interdependence is obvious for instance in the decline in potential growth and productivity gains on the back of demographic change. But the **key difference between the different drivers lies in their impact on the natural interest rate,** in particular whether they would **imply a decline in the rates of return on all assets (i.e., risk assets, real capital and government bonds) or mostly in government bond yields.** This differentiation matters because, over the last 30 years, US Treasury yields have declined more than high quality corporate debt yields, S&P earnings, or yields on productive business capital. This gap suggests that investors are willing to pay a premium for a safe liquid assets.

Exhibit 13: A rising gap between the returns on risk and real assets compared to safe ones



Source: BEA, FRB, Univ. Michigan, S&P, Morgan Stanley Research. The real after-tax return on productive capital is constructed as after-tax capital income (net of depreciation) divided by the previous period's value of business capital adjusted for the share of intangible capital according to Gomme et al. (2011) and Koh et al. (2016).

A persistent shortage of safe assets

As Exhibit 13 shows the **gap between government bond yields and the returns on equities as well as productive capital has widened materially since 2000**, likely reflecting an increasing shortage in safe assets (see The Safe Assets Shortage Conundrum, R Caballero 2017) or a rise in global risk aversion. Initially, it was the Asian savings glut and then post-crisis risk attitudes, financial regulations, and issuance dynamics that drove the premia on safe assets higher and their yields lower. Expected returns on equities were more or less stable until 2008, while government bond yields were falling. From 2008 onwards, the expected rate of return on equities has been broadly stable, if not slightly down while the real interest rates fell below zero. Interestingly, the return on productive capital resumed its uptrend after the GFC, while equity returns struggled to stabilise after an initial post-crisis bounce. The safe-asset scarcity was likely reinforced by a shrinking pool of safe assets due to:

•credit downgrades for US MBS and euro area periphery during the crisis,

•massive central bank asset purchases focused on longer-dated paper,

•increased liquidity requirements for financials, and

•fiscal policy embracing austerity and thereby reducing net issuance.

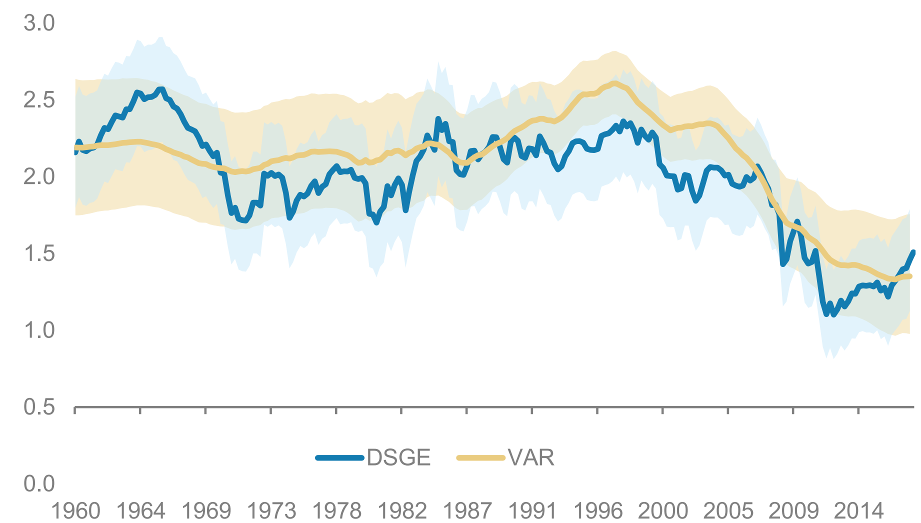
Secular downtrend in real equilibrium interest rates now...

Estimating an equilibrium level of interest rates provides us with a **useful yardstick for a neutral monetary policy rate**. It should not be seen as an attempt to forecast near-term interest rates or bond yields though. Recent research by a group of economists at the NY Fed (Brookings Paper on Economic Activity, Spring 2017) finds that the trend real interest rates in the US hovered around 2.25% until the mid-90s. In the mid-90s, the trend rate temporarily moved up to around 2.50% for a few years. From an estimated peak of 2.70% in the late 90s, a **secular downtrend pushed the real interest rate to ~1.25% at the end of last year.**

…mostly due to safe-asset shortage, not subdued productivity growth

Like other academic studies, the NY Fed also finds that **the decline in trend interest rates set in well before the GFC.** Breaking the trend decline in interest rates into its two main drivers – productivity dynamics and safe asset scarcity – the authors find that more than half of the estimated decline in trend interest rates since the late 90s can be **explained by an increase in the safety/liquidity premia investors were willing to pay to hold US Treasuries.** At the current juncture, the trend decline in US productivity growth from around 3% between the mid 90s and the mid 2000s to around 1.50% more recently, is shaving about 25bp off the trend estimate. The shortage of safe assets by contrast accounts for about 50bp of the decline in the natural interest rate.

Exhibit 14: Trend component of the natural interest rate in VAR and DSGE models, 1960-2016



Source: Del Negro, Marco and Giannone, Domenico and Giannoni, Marc P. and Tambalotti, Andrea, Safety, Liquidity, and the Natural Rate of Interest (2017-05-11). FRB of NY Staff Report No. 812. The chart summarizes the distribution of the VAR and DSGE model estimates of the trend in the real rate of interest. For each trend, the shading marks uncertainty (84th and 16th percentile). The DSGE series is based on 30 years forward estimate of r* from DSGE model

Hence, **a shift away from secular stagnation** by prospects for deregulation and automation, especially in the US, are **unlikely to shift the equilibrium real interest rates materially higher.** Clearly stronger investment spending and faster productivity growth argue for a gradual increase in long-term growth and hence natural interest rates. But **unless there is a material decline in risk aversion or an unexpected glut in safe assets**, the rise in long-term equilibrium interest rates is likely to be limited.

In conclusion, the prospect of a cyclical and probably also secular economic revival without an accompanying sharp rise in real interest rates should be reassuring for investors. Such reassuring fundamentals are something worth bearing in mind once the dataflow turns less supportive for risk assets in the second quarter, we think.

Key forecast profile

Exhibit 15: GDP growth, CPI inflation, monetary policy rates

	Quarterly														
	2017				2018				2019				2017E	2018E	2019E
Real GDP	**1Q**	**2Q**	**3Q**	**4QE**	**1QE**	**2QE**	**3QE**	**4QE**	**1QE**	**2QE**	**3QE**	**4QE**			
Global (%Q, SAAR)	**3.8**	**4.3**	**4.0**	**3.7**	**4.1**	**3.9**	**3.9**	**3.9**	**3.7**	**3.8**	**3.9**	**3.5**	**3.7**	**3.9**	**3.8**
G10 (%Q, SAAR)	**1.8**	**2.9**	**2.6**	**2.2**	**2.6**	**2.0**	**1.9**	**1.9**	**1.9**	**2.0**	**1.9**	**1.2**	**2.2**	**2.2**	**1.9**
United States	1.2	3.1	3.2	2.6	3.3*	2.4	2.3	2.4	2.2	2.0	1.9	1.7	2.3	2.6	2.1
Euro Area	2.5	2.9	2.9	2.3	2.9*	2.0	1.9	1.9	1.9	1.9	1.8	1.8	2.5	2.1	1.9
Japan	1.2	2.5	2.2	0.5	0.9	1.4	1.3	1.5	1.7	2.4	2.6	-3.5	1.6	1.3	1.5
UK	1.2	1.2	1.6	2.0	1.0	1.0	0.6	-0.2	-0.2	2.2	1.6	1.8	1.8	1.1	0.8
EM (YoY)	**4.4**	**4.5**	**4.9**	**4.9**	**5.0**	**5.0**	**5.0**	**5.0**	**5.1**	**5.0**	**5.0**	**5.1**	**4.7**	**5.0**	**5.0**
China (YoY)	6.9	6.9	6.8	6.8	6.5	6.4	6.5	6.5	6.5	6.4	6.3	6.2	6.9	6.5	6.3
India (YoY)	6.1	5.7	6.3	7.2	7.5	7.6	7.4	7.4	7.7	7.6	7.7	7.8	6.3	7.5	7.7
Brazil (YoY)	-0.4	0.3	0.9	2.0	2.0	2.8	3.5	3.9	3.7	3.2	3.3	3.2	0.7	3.1	3.4
Russia (YoY)	0.5	2.5	1.8	1.3	2.5	2.0	2.6	2.3	1.8	1.8	1.8	1.9	1.5	2.3	1.8
Consumer Price Inflation (YoY)															
Global*	**2.7**	**2.4**	**2.4**	**2.6**	**2.7**	**3.1**	**3.1**	**3.0**	**2.8**	**2.8**	**2.8**	**2.8**	**2.6**	**3.0**	**2.8**
G10	**2.0**	**1.6**	**1.7**	**1.7**	**1.8**	**2.2**	**2.3**	**2.0**	**1.7**	**1.7**	**1.7**	**1.7**	**1.8**	**2.1**	**1.7**
United States	2.6	1.9	2.0	2.1	2.1	2.6	2.5	2.0	1.7	1.7	1.7	1.7	2.1	2.3	1.7
Euro Area	1.8	1.5	1.4	1.4	1.5	2.0	2.3	2.2	1.8	1.7	1.6	1.6	1.5	2.0	1.7
Japan	0.3	0.4	0.6	0.6	1.0	1.2	1.6	1.5	1.2	1.0	0.9	0.7	0.5	1.3	0.9
UK	2.1	2.7	2.8	3.0	3.0	2.9	2.7	2.4	2.1	2.0	2.1	2.3	2.7	2.8	2.1
EM*	**3.2**	**3.0**	**3.0**	**3.3**	**3.4**	**3.7**	**3.7**	**3.7**	**3.6**	**3.6**	**3.6**	**3.6**	**3.1**	**3.7**	**3.6**
China	1.4	1.4	1.6	1.8	2.5	2.7	2.8	2.8	2.6	2.7	2.8	2.8	1.6	2.7	2.8
India	3.6	2.2	3.0	4.3	4.3	5.2	4.3	4.4	4.5	4.2	4.4	4.4	3.3	4.5	4.4
Brazil	4.9	3.6	2.6	2.8	3.0	3.6	3.8	4.0	4.4	4.3	4.3	4.3	3.5	3.8	4.2
Russia	4.6	4.2	3.4	2.6	2.4	2.5	3.1	3.6	4.1	4.1	4.1	4.1	3.7	3.6	4.1
Core Inflation (YoY)															
Global	**2.2**	**2.1**	**2.0**	**2.0**	**2.1**	**2.3**	**2.4**	**2.5**	**2.5**	**2.5**	**2.6**	**2.6**	**2.1**	**2.4**	**2.5**
G4	**1.2**	**1.3**	**1.2**	**1.2**	**1.3**	**1.5**	**1.6**	**1.7**	**1.6**	**1.7**	**1.8**	**1.7**	**1.2**	**1.5**	**1.7**
United States^	1.8	1.5	1.4	1.5	1.5	1.7	1.8	1.7	1.7	1.8	1.8	1.7	1.5	1.7	1.8
Euro Area	0.8	1.1	1.2	0.9	1.1	1.3	1.4	1.6	1.5	1.7	1.7	1.7	1.0	1.3	1.6
Japan	0.1	0.0	0.2	0.3	0.4	0.5	0.8	1.0	1.1	1.2	1.3	1.2	0.1	0.7	1.2
UK	1.8	2.5	2.6	2.6	2.7	2.6	2.5	2.5	2.4	2.4	2.5	2.7	2.4	2.6	2.5
BRIC	**3.2**	**2.9**	**2.9**	**2.9**	**3.0**	**3.2**	**3.3**	**3.3**	**3.4**	**3.3**	**3.4**	**3.4**	**3.0**	**3.2**	**3.4**
China	2.0	2.1	2.2	2.3	2.4	2.5	2.6	2.7	2.6	2.6	2.7	2.7	2.2	2.5	2.6
India	4.9	4.2	4.3	4.7	4.7	5.1	4.7	4.5	4.7	4.7	4.7	4.3	4.5	4.7	4.6
Brazil	4.5	3.8	3.1	3.2	3.5	3.9	4.1	4.3	4.3	4.3	4.3	4.3	3.6	3.9	4.3
Russia	5.2	3.9	3.0	2.1	1.9	2.6	3.2	3.8	4.0	3.9	4.1	4.1	3.6	2.8	4.0
Monetary Policy Rate (% p.a.)															
Global	**3.2**	**3.2**	**3.1**	**3.1**	**3.2**	**3.2**	**3.3**	**3.3**	**3.5**	**3.6**	**3.6**	**3.6**	**3.1**	**3.3**	**3.6**
G10	**0.3**	**0.4**	**0.4**	**0.6**	**0.7**	**0.8**	**0.9**	**0.9**	**1.1**	**1.2**	**1.2**	**1.3**	**0.6**	**0.9**	**1.3**
United States	0.875	1.125	1.125	1.375	1.625	1.875	2.125	2.125	2.375	2.625	2.625	2.625	1.375	2.125	2.625
Euro Area	-0.40	-0.40	-0.40	-0.40	-0.40	-0.40	-0.40	-0.40	-0.25	-0.25	-0.25	-0.25	-0.40	-0.40	-0.25
Japan	-0.10	-0.10	-0.10	-0.10	-0.10	-0.10	-0.10	-0.10	-0.10	-0.10	-0.10	-0.10	-0.10	-0.10	-0.10
UK	0.25	0.25	0.25	0.50	0.50	0.75	0.75	0.75	0.75	1.00	1.00	1.25	0.50	0.75	1.25
EM	**5.4**	**5.3**	**5.1**	**5.0**	**5.0**	**5.0**	**5.0**	**5.1**	**5.2**	**5.2**	**5.2**	**5.3**	**5.0**	**5.1**	**5.3**
China	4.35	4.35	4.35	4.35	4.35	4.35	4.60	4.60	4.85	4.85	4.85	4.85	4.35	4.60	4.85
India	6.25	6.25	6.00	6.00	6.00	6.00	6.00	6.25	6.25	6.50	6.50	6.75	6.00	6.25	6.75
Brazil	12.25	10.25	8.25	7.00	6.75	6.75	6.75	7.25	8.25	8.50	8.50	8.50	7.00	7.25	8.50
Russia	9.75	9.00	8.50	7.75	7.25	6.75	6.50	6.50	6.50	6.50	6.50	6.50	7.75	6.50	6.50

Note: Global and regional aggregates for GDP growth are GDP-weighted averages, using PPPs. Japan CPI excludes VAT; Japan policy rate is the interest rate on excess reserves; CPI numbers are period averages. Global* and EM* Consumer Price Inflation Aggregates exclude Venezuela and Argentina. **Tracking estimate. ^The US core inflation number is core PCE.
Source: IMF, Morgan Stanley Research forecasts

Key debates in global economics

Our core views on the global economy

The global recovery is likely to gain momentum and breadth in 2018, supported by still accommodative monetary policy and more fiscal stimulus. With major economies at different stages of the business cycle, the risk of the global economy running too hot is limited though.

Growth – solid stride in DM, faster pace in EM: The global recovery is set to continue in 2018 and it is likely to broaden further as EM gains momentum. Maturing business cycles could cause DM growth to slow in 2019, but it should still stay above potential. US and China are late-cycle already, while the euro area and Japan are mid-cycle and EM commodity exporters only early-cycle.

Inflation – moving higher, but not beyond targets: While DM headline inflation is likely moving sideways over the forecast horizon, DM core inflation is likely to pick up in 2018. However, with the exception of the UK, DM inflation is unlikely to move above central bank targets. Meanwhile, EM inflation is set to rise, led by Asia.

Policy – less monetary expansion, more fiscal stimulus: Monetary policy is set to remain expansionary in 2018. Balance sheet reduction and additional rate hikes cause the Federal Reserve to inch beyond neutral, but only in 2019. Fiscal policy is likely to become more expansionary in several key DM economies, particularly the US.

Risks – faster inflation, tighter finances, trade protectionism: The key risk relates to estimating the remaining economic slack correctly and anticipating wage pressures as labour markets reach full employment. Overly rich asset valuations could cause tighter financial conditions. Lastly, a disruption in global trade could undermine the recent rebound in capex and productivity.

Country highlights

US: We forecast GDP growth of 2.6%Y in 2018 and 2.1%Y in 2019, as a fiscal boost supports the macro backdrop in 2018, though its positive impulse should fade somewhat in 2019. Core inflation should rise gradually to just below target as transitory factors that had led to a decline in 2017 fade (prior USD appreciation, price resets of telecom contracts). The Fed will likely hike rates three times in 2018, followed by a lengthy pause before hiking twice more in 2019.

Euro area: The economic recovery has broadened during recent quarters. We expect the euro area to grow by 2.1%Y in 2018 and 1.9%Y in 2019, with support from acceleration in capex and consumption. Our euro area forecast envisages three key shifts: the output gap turns positive, core inflation rises above its long-term average and the ECB ends QE after September 2018, with the first 15bp depo rate hike to -0.25% in March 2019.

Japan: We expect real GDP to rise by 1.3%Y in 2018 and 1.5%Y in 2019, lifted by stronger exports and private capex. We think inflation has bottomed with an improving output gap on the back of a tighter labour market and higher capacity utilisation rates. We expect the BoJ's first adjustment of the long-term rate target in July-September 2018, when core-core CPI (ex. fresh food and energy) will likely approach 1%Y.

China: GDP growth will likely moderate to 6.5%Y in 2018 and 6.3%Y in 2019, as policy-makers' emphasis on growth quality over GDP targets means continued efforts on capacity cuts, controlling the pace of credit growth and curbs on property purchases. That said, growth quality will improve and a major growth correction is unlikely amid a managed pace of policy implementation. The inflation dynamic should remain healthy amid a robust job market and capacity adjustments.

Brazil: We expect growth to accelerate from 0.7%Y in 2017 to 3.1%Y in 2018 and 3.4%Y in 2019, driven by consumption and a pick-up in investment growth, despite the drag from political uncertainties. But the sustainability of the recovery is more policy-dependent. Inflation and rates should continue to be low amid a large output gap.

India: High-frequency indicators are showing that economic growth gained momentum in Nov-Dec. The recovery in end demand should lead to higher utilisation rates which, coupled with improving corporate return expectations, balance sheet fundamentals and a strengthening financial system, should support private capital spending in 2018. Against the backdrop of a better macro outlook and higher headline inflation, we expect the RBI to start hiking in 4Q18.

Russia: We pencil in 2.3%Y GDP growth in 2018, supported by higher oil prices and increases in public sector wages. With average CPI slightly below 4%Y in 2018, we see the CBR cutting interest rates to 6.5% by 3Q18. We are sceptical about government delivery of reforms after the presidential elections and expect growth to moderate to 1.8%Y in 2019.

For our global forecasts, see Global Economics Playbook: Global Capex Cycle: Gaining Strength and Breadth, February 7, 2018.

What's new in the global economy

Global activity growth has continued to surprise on the upside compared to our forecasts in November. Business sentiment has improved further across DMs and EMs, and investment-related indicators hit multi-year highs. Global GDP growth has surprised to the upside at 4.0%Q saar in 3Q, and likely remained strong according to our estimate of 3.7%Q in 4Q17.

As growth remains strong and inflation picks up, central banks are accordingly likely to shift towards a more hawkish tone. We expect the Fed to continue to lift rates while the ECB and BoJ shift their rhetoric in a more hawkish direction in preparation for an eventual tightening.

In China, the policy focus will remain on tighter regulation and reining in financial risks. In EMs ex China, the majority of central banks are expected to raise interest rates broadly in line with a pick-up in inflation this year, led by AXJ and CEE. A few select EMs will remain in easing mode.

Key research highlights

Zentner, Ellen

US Economics: 2018 US Consumer Outlook

Wages get a lift from a tight labor market and rising productivity, as well as minimum wage increases and tax policy tailwinds. Rising wealth and lower withholding also keep spending above trend through 2Q19. Middle- and lower-income groups are primary drivers of the delta on spending this year. read more

Ahya, Chetan

Global Economics Playbook: Global Capex Cycle: Gaining Strength and Breadth

Growth tracking above trend. The global recovery is gaining momentum, with capex now being the most important driver. While DMs were leading, EMs have now joined in. read more

Kozak, Jan

Germany Economics: Wage Engine Gradually Picking Up Steam

Wage agreements in the German metal & steel industry point to acceleration in wage growth. But the upward trajectory is likely to be gradual, as parts of the labour market still face headwinds from structural factors. read more

Zheng, Jenny

China Economics: View on Trade Data and RMB

Trade surplus unexpectedly narrowed due to stronger-than-seasonality imports. While exports will likely remain supported by global recovery, Beijing may hesitate to allow sustained CNY NEER appreciation amid reduced exports market share. read more

Global risk calendar

Date	Time (Ldn)	Ccy	Event	Ref. Period	MS forecast	Market	Previous
15-Feb	04:30	JPY	Industrial Production (MoM)	Dec F			2.7%
15-Feb	N/A	IDR	BI Rates Decision		4.25%	4.25%	4.25%
15-Feb	14:15	USD	Industrial Production (MoM)	Jan	0.5%	0.2%	0.9%
16-Feb	09:30	GBP	Retail Sales (MoM)	Jan	-0.4%	0.6%	-1.6%
16-Feb	13:30	USD	Housing Starts	Jan	1.207m	1235k	1192k
16-Feb	13:30	USD	Housing Starts (MoM)	Jan	1.3%	3.6%	-8.2%
16-Feb	15:00	USD	Univ. of Michigan Confidence	Feb P		95.3	95.7
20-Feb	10:00	EUR	German ZEW Survey Current Situation	Feb			95.2
20-Feb	**10:00**	**EUR**	**German ZEW Survey Expectations**	**Feb**			**20.4**
21-Feb	**09:00**	**EUR**	**PMI Composite**	**Feb P**			**58.8**
21-Feb	09:30	GBP	Jobless Claims Change	Jan			8.6k
21-Feb	09:30	GBP	Average Weekly Earnings (Inc. Bonuses, 3M/Y)	Dec			2.5%
21-Feb	**09:30**	**GBP**	**Average Weekly Earnings (Ex. Bonuses, 3M/Y)**	**Dec**			**2.4%**
21-Feb	**09:30**	**GBP**	**ILO Unemployment Rate 3Mths**	**Dec**			**4.3%**
21-Feb	09:30	GBP	Employment Change (3M/3M)	Dec			102k
21-Feb	15:00	USD	Existing Home Sales	Jan	5.60m	5.6m	5.57m
21-Feb	**19:00**	**USD**	**FOMC Meeting Minutes**				
22-Feb	**09:00**	**EUR**	**IFO Business Climate**	**Feb**			**117.6**
22-Feb	09:30	GBP	GDP (QoQ)	4Q P			0.5%
22-Feb	15:00	USD	Leading Index	Jan	0.7%	0.7%	0.6%
22-Feb	**23:30**	**JPY**	**CPI (YoY)**	**Jan**			**1%**
23-Feb	10:00	EUR	CPI (YoY)	Jan F			1.3%
23-Feb	N/A	COP	BDRC Rates Decision				4.5%

Source: Bloomberg, MS FX Strategy Research. N/A Denotes timing approximate or not confirmed / All times and dates are Ldn time and correct as of the date of publication / For a full list of economic events, see the calendar on the Morgan Stanley Matrix Platform.*

Global economic dashboard

US
1. US Economics: Key Data Watch Calendar

2. US Economics: 2018 US Consumer Outlook

3. US Economics: Payrolls & Wages: Firming Wage Trends

Europe
1. European Economics Weekly: What's the Dataflow Telling Us?

2. Italian Elections: A Non-Binary Event

3. Germany Economics: Wage Engine Gradually Picking Up Steam

Japan
1. Japan Economic Calendar: Japan's Economy Passing Through Turbulence

2. BoJ Watch: The BoJ Conducts Fixed-rate JGB Purchases

3. Japan Economics: 2018 Spring Wage Negotiation (Shunto) Outlook

Asia Pacific
1. Asia/Pacific Weekly Preview: Monetary Policy Decisions and Monetary Indicators

2. India Economics and Strategy: Correction - F2019 Budget: Neutral for Economy and Equities

3. Global Macro Briefing: Assessing the EM ex China Policy Mix and Fundamentals

CEEMEA
1. CEEMEA Compass: Does Politics Eclipse Macro?

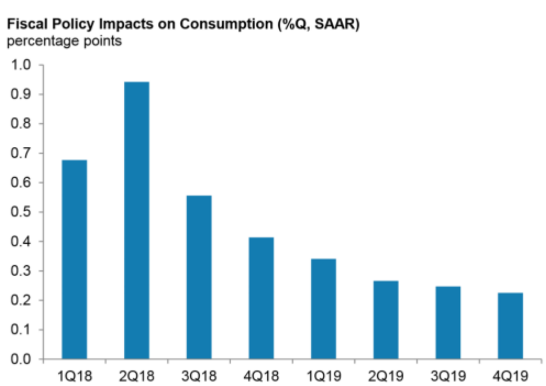
2. Turkey Economic Chartbook: Stimulus Is the Word

3. Sweden Economics and Strategy: Riksbank Preview: It's All about Timing

Latin America
1. Week Ahead in Latin America: Chile: Is Investment Finally Gaining Traction?

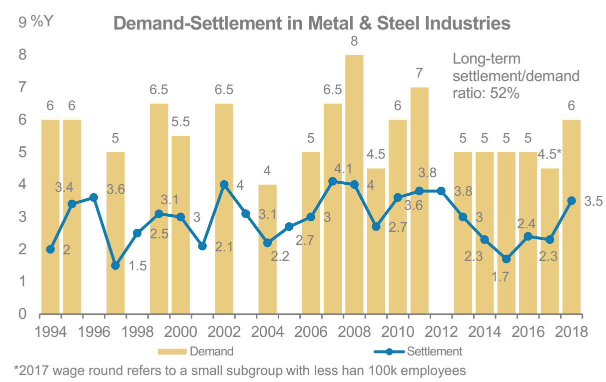
2. Mexico Strategy & US Public Policy: NAFTA: Can We Still Make a Deal?

Exhibit 16: US: Fiscal policy impacts on Consumption (%Q, SAAR)



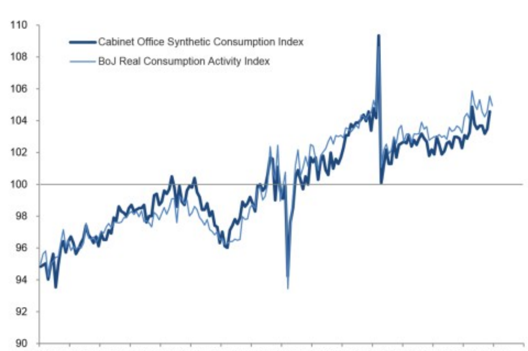
Source: Morgan Stanley Research

Exhibit 17: Euro area: Historical IG Metall demand-settlement ratio at 52%



Source: WSI Tarifarchiv, Morgan Stanley Research

Exhibit 18: Japan: Cabinet Office Synthetic Consumption Index, BoJ Consumption Activity Index (2010=100, SA)



Note: Cabinet Office Synthetic Consumption Index is transformed to 2010=100 by Morgan Stanley Research
Source: Cabinet office, Bank of Japan,, Morgan Stanley Research

Exhibit 19: Asia: CNY NEER Recently Exceeded Its Trading Range of Sep-Dec 2017

Source: Bloomberg, Morgan Stanley Research

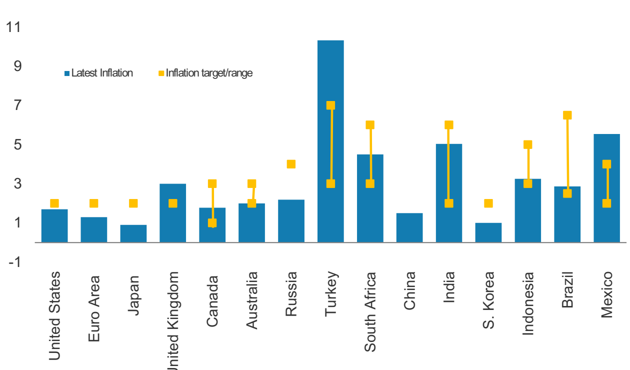
Inflation & central bank monitor

Exhibit 20: Inflation monitor and next policy moves by country

	Inflation target	Latest Month	12M MS Forecast	Next Rate Decision	Current Rate	Market Expects (bp)	MS Expects (bp)	Risks to our call
United States	2.0% PCE Price Index	1.7%	1.5%	21 Mar	1.375	21.0	25	-
Euro Area	< 2% HICP (u)	1.3%	1.8%	08 Mar	-0.40	0.7	0	-
Japan	2% CPI (u)	0.9%	1.5%	09 Mar	-0.10	0.2	0	-
United Kingdom	2%	3.0%	2.3%	22 Mar	0.50	2.1	0	-
Canada	1-3%	1.8%	2.0%	07 Mar	1.25	1.2	0	-
Norway	2.5% CPI	1.7%	1.8%	15 Mar	0.50	0.6	0	-
Sweden	2.0% CPI	1.7%	2.0%	26 Apr	-0.50	-0.5	0	-
Australia	2-3% over the cycle	1.9%	2.1%	06 Mar	1.50	0.1	0	-
New Zealand	1-3% over the cycle	1.6%	2.7%	22 Mar	1.75	0.3	0	-
Russia	4% CPI	2.2%	4.1%	23 Mar	7.50	-	-25	on hold
Poland	2.5% (+/- 1%) CPI	2.1%	2.5%	07 Mar	1.50	0.3	0	-
Czech Republic	2.0% (+/-1%) CPI	2.4%	2.4%	29 Mar	0.75	-	0	-
Hungary	3.0% CPI +/- 1%	2.1%	3.1%	27 Feb	0.90	0.4	0	-
Romania	2.5 (+/-1%) CPI	3.3%	3.3%	04 Apr	2.25	-	0	Risks tolted towards faster hikes
Turkey	5% (±2%)	11.9%	9.1%	07 Mar	8.00	-	0	-
Israel	1-3%	0.2%	0.9%	26 Feb	0.10	0.0	0	-
South Africa	3 - 6%	4.8%	4.7%	28 Mar	6.75	-13.3	0	Moody's remains on hold and SARB cuts 25bps
Nigeria	6-9%	15.9%	12.6%	tbd	14.00	-	0	-
China	N/A	1.5%	2.8%	N/A	4.35	-	25	Evenly Balanced
India	2-6%	5.1%	4.8%	05 Apr	6.00	-	0	Risk of an earlier than expected hike due to rising inflation
Hong Kong	N/A	1.7%	2.7%	21 Mar	1.75	-	25	Faster pace of rate hikes
S. Korea	2% CPI	1.0%	1.7%	27 Feb	1.50	0.4	0	Upside Risks
Taiwan	N/A	0.9%	1.2%	22 Mar	1.375	1.4	0	Evenly Balanced
Indonesia	3.5% +/- 1.0%	3.3%	3.8%	15 Feb	4.25	-	0	Evenly balanced
Malaysia	N/A	3.5%	2.7%	07 Mar	3.25	-0.1	0	Evenly balanced
Thailand	2.5% +/- 1.5% CPI	0.7%	1.6%	28 Mar	1.50	10.6	0	Evenly balanced
Philippines	3% +/-1% CPI	4.0%	3.3%	22 Mar	3.00	-	25	Evenly balanced
Brazil	4.5% +/-2.0% IPCA	3.3%	4.4%	21 Mar	6.75	-7.2	0	-
Mexico	3% +/-1% CPI	5.5%	4.0%	12 Apr	7.50	10.0	25	-
Argentina	15% in 2018	24.8%	18.4%	14 Feb	27.3	-	0	-
Chile	3% +/-1% CPI	2.3%	2.7%	20 Mar	2.50	2.9	0	-
Peru	2% +/-1% CPI	1.4%	2.4%	09 Mar	3.00	-	-	-
Colombia	3% +/-1% CPI	3.7%	3.7%	23 Feb	4.50	-4.7	0	-

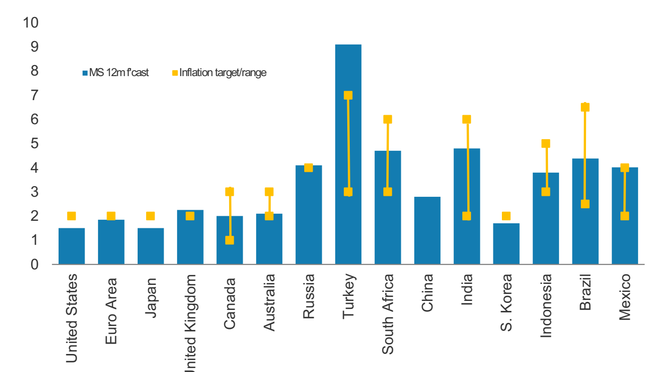
(u) = unofficial
Notes: Inflation numbers in red indicate values above target, green below; MS expectations in red (green) indicate our rate forecasts are above (below) market expectations. Japan policy rate is the interest rate on excess reserves.
Source: National central banks, Morgan Stanley Research forecast

Exhibit 21: Current inflation vs. target



Source: National data, Morgan Stanley Research

Exhibit 22: Inflation forecast vs. target



Source: National data, Morgan Stanley Research estimates

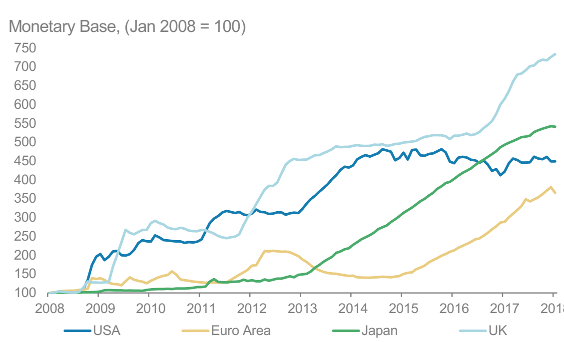
Monetary policy rate forecasts

Exhibit 23: Monetary policy rate forecasts, 2018-19E

	Current	1Q18	2Q18	3Q18	4Q18	1Q19	2Q19	3Q19	4Q19
US	1.375	1.625	1.875	2.125	2.125	2.375	2.625	2.625	2.625
Euro Area	-0.40	-0.40	-0.40	-0.40	-0.40	-0.25	-0.25	-0.25	-0.25
Japan	-0.10	-0.10	-0.10	-0.10	-0.10	-0.10	-0.10	-0.10	-0.10
United Kingdom	0.50	0.50	0.75	0.75	0.75	0.75	1.00	1.00	1.25
Canada	1.25	1.25	1.50	1.50	1.50	1.75	1.75	2.00	2.00
Norway	0.50	0.50	0.50	0.50	0.75	0.75	1.00	1.00	1.25
Sweden	-0.50	-0.50	-0.50	-0.50	-0.50	-0.25	-0.25	0.00	0.00
Australia	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.75	2.00
New Zealand	1.75	1.75	1.75	2.00	2.25	2.50	2.75	3.00	3.25
Russia	7.50	7.25	6.75	6.50	6.50	6.50	6.50	6.50	6.50
Poland	1.50	1.50	1.50	1.75	2.00	2.25	2.50	2.50	2.50
Czech Republic	0.75	0.75	1.00	1.25	1.25	1.50	1.75	2.00	2.00
Hungary	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Romania	2.25	2.25	2.50	2.75	3.00	3.00	3.25	3.50	3.50
Turkey	8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00
Israel	0.10	0.10	0.10	0.25	0.25	0.25	0.25	0.50	0.50
South Africa	6.75	6.75	6.50	6.50	6.50	6.50	6.75	6.75	6.75
Nigeria	14.00	14.00	13.00	13.00	13.00	13.50	14.00	14.00	14.00
Saudi Arabia	2.00	2.13	2.38	2.63	2.75	3.00	3.25	3.25	3.25
China	4.35	4.35	4.35	4.60	4.60	4.85	4.85	4.85	4.85
India	6.00	6.00	6.00	6.00	6.25	6.25	6.50	6.50	6.75
Hong Kong	1.75	2.00	2.25	2.50	2.50	2.75	3.00	3.00	3.00
S. Korea	1.50	1.50	1.75	1.75	1.75	1.75	1.75	1.75	1.75
Taiwan	1.375	1.375	1.500	1.625	1.750	1.750	1.750	1.750	1.750
Indonesia	4.25	4.25	4.25	4.50	4.75	4.75	4.75	4.75	4.75
Malaysia	3.25	3.25	3.25	3.25	3.25	3.25	3.25	3.25	3.25
Thailand	1.50	1.50	1.50	1.50	1.50	1.50	1.75	2.00	2.00
Philippines	3.00	3.25	3.50	3.50	3.50	3.50	3.50	3.50	3.50
Brazil	6.75	6.75	6.75	6.75	7.25	8.25	8.50	8.50	8.50
Mexico	7.50	7.50	7.75	7.75	7.75	6.50	6.25	6.00	6.00
Chile	2.50	2.50	2.50	2.50	2.50	3.00	3.50	3.50	3.50
Peru	3.00	Under Review							
Colombia	4.50	4.25	4.25	4.25	4.25	4.75	5.00	5.00	5.00
Argentina	27.25	25.75	24.50	23.50	22.75	21.50	20.25	19.00	19.00

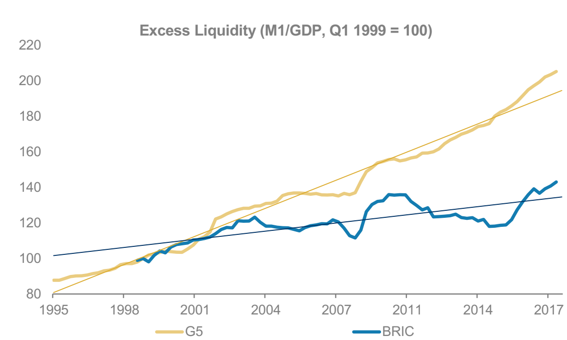
Source: Morgan Stanley Research forecasts

Exhibit 24: G4 monetary base



Source: FRB, BEA, ECB, Eurostat, BoJ, BoE, ONS, Morgan Stanley Research; 'Retail M4' used for UK.

Exhibit 25: G5 and BRIC excess liquidity



Source: National Sources, Morgan Stanley Research

Global GDP and inflation forecasts

Exhibit 26: Morgan Stanley real GDP and inflation forecasts, 2017-19E

	Real GDP (%Y)					CPI Inflation (%Y)				
	2017E	2018E		2019E		2017	2018E		2019E	
	MS	MS	Cons	MS	Cons	MS	MS	Cons	MS	Cons
Global*	**3.7**	**3.9**	**3.9**	**3.8**	**3.8**	**2.6**	**3.0**	**2.8**	**2.8**	**2.8**
G10	**2.2**	**2.2**	**2.3**	**1.9**	**2.0**	**1.8**	**2.1**	**1.9**	**1.7**	**1.9**
US	2.3	2.6	2.7	2.1	2.3	2.1	2.3	2.3	1.7	2.2
Euro Area	2.5	2.1	2.2	1.9	1.9	1.5	2.0	1.5	1.7	1.6
Japan	1.6	1.3	1.3	1.5	1.0	0.5	1.3	0.9	0.9	1.0
UK	1.8	1.1	1.4	0.8	1.5	2.7	2.8	2.5	2.1	2.1
Canada	2.6	1.8	2.2	1.8	1.7	1.5	1.5	2.1	2.2	2.0
Norway	1.8	2.3	2.2	2.1	2.2	1.9	1.9	1.8	2.0	2.0
Sweden	3.1	2.8	2.6	2.0	2.2	1.8	1.3	1.8	2.6	2.2
Australia	1.9	1.5	2.8	2.5	2.8	2.0	2.3	2.2	2.7	2.3
New Zealand	2.7	3.4	2.9	3.1	2.8	1.9	2.2	1.9	2.3	2.0
EM*	**4.7**	**5.0**	**4.9**	**5.0**	**4.9**	**3.1**	**3.7**	**3.5**	**3.6**	**3.5**
CEEMEA	**2.3**	**2.7**	**2.6**	**2.6**	**2.7**	**5.8**	**5.6**	**5.6**	**5.3**	**5.6**
Russia	1.5	2.3	1.9	1.8	1.8	3.7	3.6	3.5	4.1	4.0
Poland	4.2	4.4	3.9	3.8	3.3	1.9	2.2	2.3	2.5	2.6
Czech Rep	4.5	3.8	3.4	3.0	3.0	2.5	2.5	2.3	2.1	2.1
Hungary	3.7	3.5	3.5	3.2	3.2	2.4	2.9	2.8	3.0	3.0
Ukraine	2.1	2.9	3.0	3.4	3.3	14.5	11.0	9.1	7.8	6.3
Kazakhstan	4.0	4.3	3.2	4.0	3.3	7.5	7.3	6.5	6.5	6.3
Turkey	5.6	3.2	4.0	3.7	3.9	11.1	10.0	10.0	8.4	9.0
Israel	3.2	3.1	3.3	3.4	3.1	0.3	0.6	0.8	1.6	1.1
South Africa	0.8	1.5	1.4	1.8	1.7	5.3	4.8	5.0	5.1	5.2
Nigeria	0.7	2.5	2.6	2.9	3.4	16.6	13.5	13.5	13.0	12.5
Saudi Arabia	-0.7	1.5	1.5	1.9	2.0	-0.1	2.9	3.4	2.5	3.0
AXJ	**6.2**	**6.2**	**6.2**	**6.1**	**6.1**	**2.2**	**3.1**	**2.9**	**3.1**	**2.9**
China	6.9	6.5	6.5	6.3	6.3	1.6	2.7	2.3	2.8	2.3
India	6.3	7.5	7.4	7.7	7.4	3.3	4.5	4.8	4.4	4.6
Hong Kong	3.6	3.0	2.8	2.5	2.6	1.7	2.7	2.5	3.1	2.5
Korea	3.1	3.0	3.0	2.7	2.8	1.9	1.7	1.9	1.7	2.0
Taiwan	2.8	2.9	2.5	2.6	2.3	0.2	0.8	1.2	1.2	1.3
Singapore	3.6	3.4	3.0	3.1	2.7	0.6	1.4	1.0	1.8	1.7
Indonesia	5.1	5.4	5.3	5.5	5.5	3.8	3.5	3.8	3.8	3.9
Malaysia	5.9	5.6	5.3	5.3	5.2	3.8	3.0	2.7	2.5	2.6
Thailand	3.7	3.8	3.7	3.5	3.7	0.7	1.9	1.4	1.3	1.7
Philippines	6.7	6.6	6.6	6.6	6.6	3.2	3.7	3.6	3.1	3.6
LatAm*	**0.8**	**2.2**	**2.3**	**2.6**	**2.6**	**4.3**	**3.9**	**3.7**	**3.7**	**3.7**
Brazil	0.7	3.1	2.5	3.4	2.7	3.5	3.8	3.7	4.2	4.2
Mexico	2.1	1.8	2.2	2.3	2.3	6.0	4.9	4.2	3.6	3.6
Chile	1.6	2.9	2.7	2.7	3.0	2.2	2.5	2.5	2.9	2.9
Peru	2.8	3.9	3.9	3.7	4.0	2.8	1.4	2.5	2.5	2.6
Colombia	1.6	2.3	2.6	2.8	3.0	4.3	3.5	3.4	3.6	3.3
Argentina	2.8	3.3	3.3	3.7	3.3	25.6	22.8	19.3	15.7	13.1
Venezuela	-15.6	-9.6	-5.0	-6.9	-2.3	1049.0	4073.5	2174.7	10428.3	1509.8

Source: IMF, Morgan Stanley Research forecasts. * Global, EM and LatAm CPI aggregates exclude Venezuela and Argentina.

Government budget balance and debt forecasts

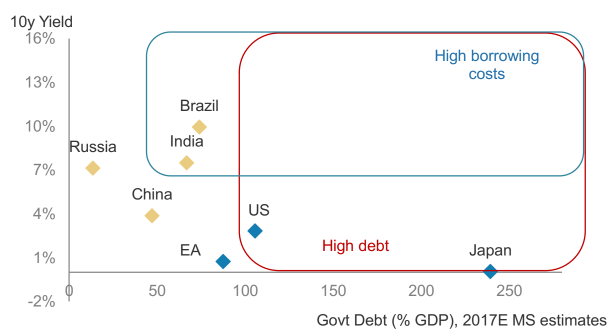
Exhibit 27: Budget balance, primary balance, gross and net government debt, 2016-19E

	General Gov't Budget Balance (% of GDP)				Primary General Gov't Budget Balance (% of GDP)			
	2016	2017E	2018E	2019E	2016	2017E	2018E	2019E
DM								
US	-3.1	-3.2	-4.4	-5.0	-1.8	-1.9	-2.9	-3.3
Euro Area	-1.5	-1.2	-1.4	-1.6	0.7	0.9	0.6	0.4
Japan	-4.2	-4.1	-3.4	-3.5	-4.0	-4.0	-3.5	-3.5
UK	-2.9	-2.4	-2.0	-1.7	-0.5	0.3	0.6	0.6
Canada	-1.9	-2.2	-1.8	-1.6	-1.2	-1.5	-1.3	-0.9
Sweden	0.9	1.1	0.9	0.9	1.3	1.3	1.1	1.1
Australia	-2.4	-2.1	-2.0	-2.1	-1.6	-1.5	-1.3	-1.4
BRICs								
Russia	-3.4	-2.0	-1.1	-0.7	-3.1	N/A	N/A	N/A
China	-3.8	-3.8	-3.8	-3.6	-2.9	N/A	N/A	N/A
India	-7.1	-6.7	-6.5	-6.1	2.1	2.2	1.8	1.5
Brazil	-9.0	-7.8	-7.9	-6.9	-2.5	-1.7	-2.2	-1.5

	Gross General Gov't Debt (% of GDP)				Net General Gov't Debt (% of GDP)			
	2016	2017E	2018E	2019E	2016	2017E	2018E	2019E
DM								
US	106.1	105.6	106.5	106.7	77.0	76.7	78.0	78.8
Euro Area	88.9	87.5	86.2	85.5	70.2	N/A	N/A	N/A
Japan	238.7	239.3	238.6	235.7	119.5	120.1	119.4	116.5
UK	88.2	86.5	86.3	86.3	53.2	51.0	50.9	50.8
Canada	92.4	89.6	87.7	85.8	27.4	24.6	22.7	20.9
Sweden	42.2	39.1	36.4	34.1	-29.5	N/A	N/A	N/A
Australia	25.4	28.7	29.9	31.5	17.9	18.6	20.1	21.4
BRICs								
Russia	12.9	13.5	14.9	15.0	N/A	N/A	N/A	N/A
China	47.2	47.1	47.8	48.6	N/A	N/A	N/A	N/A
India	68.0	66.8	65.3	63.4	N/A	N/A	N/A	N/A
Brazil	69.5	74.0	75.0	78.8	47.5	51.6	57.7	63.8

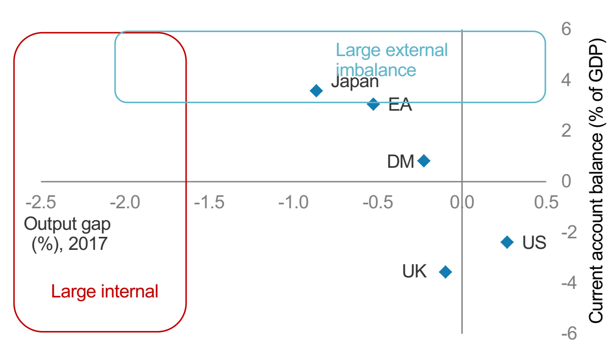
Source: IMF, Morgan Stanley Research forecasts.

Exhibit 28: G3 and BRIC government debt and 10Y yield



Source: IMF forecasts, Morgan Stanley Research

Exhibit 29: G3 fiscal space – output gap and C/A balance



Source: IMF forecasts, Morgan Stanley Research

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