



**Asset  
Management**

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# **London Borough of Tower Hamlets**

## **GS Strategic Absolute Return Bond II Portfolio**

### **Portfolio Review**

**GSAM Global Fixed Income and Liquidity Solutions**

September 2018

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## I. Executive Summary

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# Executive Summary

As of 30-Sep-2018



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## Account Summary

Account Name	GS Strategic Absolute Return Bond II Portfolio – London Borough of Tower Hamlets
Assets	GBP 52mn
Benchmark	3 Month GBP LIBOR
Target Tracking Error	500 – 600 bps
Target Excess Return	400-500 bps <sup>1</sup>
Performance Inception Date	04-Apr-2016

## Performance Summary

	Portfolio Net (%)	Target (Benchmark+4%) (%)	Difference Net (bps)
3Q 2018	(0.19)	1.18	(137)
2018 YTD	(1.93)	3.49	(542)
Last 1 Year	(1.74)	4.63	(637)
Since Inception (Ann) <sup>2</sup>	0.35	4.49	(414)

## Portfolio Summary

	Portfolio	Benchmark	Difference
Number of Countries	44	0	44
Yield to Maturity (%)	3.01	2.40	0.61
Yield to Worst (%)	3.00	2.40	0.60
Option Adjusted Duration (yrs)	0.26	0.25	0.01
OA Spread Duration (yrs)	0.35	0.25	0.10
Maturity (Bonds, yrs)	6.50	0.00	6.50
Average Life (Bonds, yrs)	3.12	0.00	3.12
Libor OAS (bps)	61	0	61

As of 30-Sep-2018.

**Past performance does not guarantee future results, which may vary.** Targets are subject to change and are current as of the date of this presentation. Targets are objectives and do not provide any assurance as to future results. Please see additional disclosures. Portfolio holdings and/or allocations shown above are as of the date indicated and may not be representative of future investments. The holdings and/or allocations shown may not represent all of the portfolio's investments. Future investments may or may not be profitable. <sup>1</sup>Over a typical market cycle. <sup>2</sup>Performance inception date: 04-Apr-2016.



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## II. Market Review

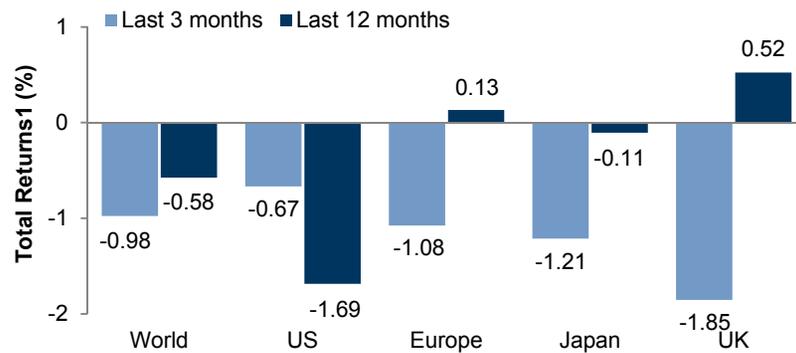
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# Market Review



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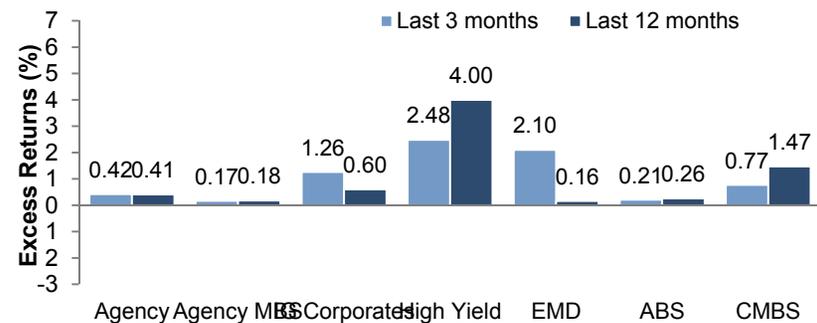
## Global Government Markets – Local Currency



Source: Bloomberg

- Global government bonds posted negative returns during the third quarter of 2018. The Federal Open Market Committee (FOMC) delivered the third rate hike of 2018 at its meeting in September. The median dot plot points toward one further rate hike this year and three in 2019.
- The Bank of England (BoE) voted unanimously to raise its policy rate to 0.75% in August. Policymakers highlighted reduced slack in the economy and signs of wage growth, noting “ongoing tightening” would be appropriate if the economy evolves in line with its projections. Providing Brexit negotiations proceed in an orderly manner, we think the BoE’s “gently rising path” could entail another rate hike in H1 2019. Recent market re-pricing reflects a dovish take on the ECB’s July meeting where they noted rates will remain unchanged through Summer 2019. We expect a rate hike in Q3 2019 but do not expect the policy rate to move beyond 0% over the next couple of years given our subdued core inflation outlook.

## Sector<sup>3</sup> Performance (in USD) – Excess Returns<sup>2</sup> Over Government Bonds



Source: Barclays, Bloomberg

- In the third quarter, performance was positive across the spread sectors.
- High yield corporate credit returned the most as credit fundamentals for high yield issuers have been steadily improving. Firmer oil prices were supportive for Energy issuers, which tend to be high-yield rated.
- Investment Grade corporate credit returns were positive due to a combination of strong corporate fundamentals and improved risk sentiment.
- Emerging market debt rebounded after two consecutive quarters of negative performance driven by a relief rally in July and a series of positive events in September. Most notably, a rate hike in Turkey, progress on the US-Mexico NAFTA negotiations and a revised IMF program for Argentina bolstered market sentiments over the quarter.

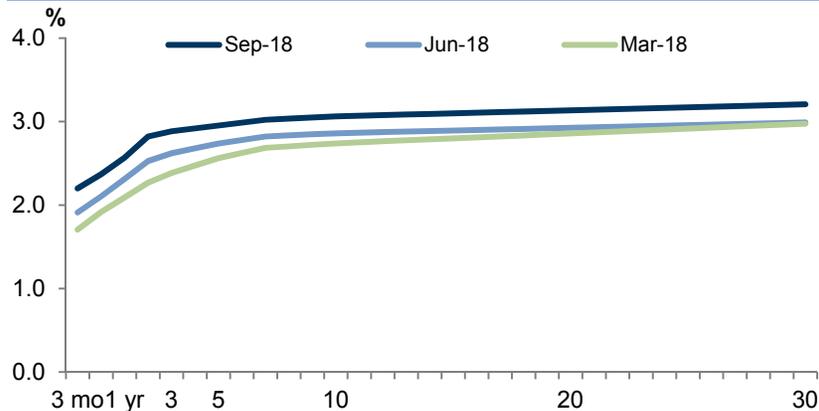
<sup>1</sup> Total returns are calculated from the respective regions based off the JP Morgan Global Government Bond Index. <sup>2</sup> This is the excess return over swaps, and is based off GSAM’s non-agency MBS factor return. All securities are denominated in US\$. <sup>3</sup> Agency: Bloomberg Barclays Global Aggregate: Government Related Agencies; MBS: Bloomberg Barclays US MBS; IG Corporates: Bloomberg Barclays Global Aggregate Corporates; High Yield: Bloomberg Barclays US Corporate High Yield, EMD: Bloomberg Barclays EM (US\$) Aggregate. **Past performance does not guarantee future results, which may vary.** As of September 28, 2018

# Market Review



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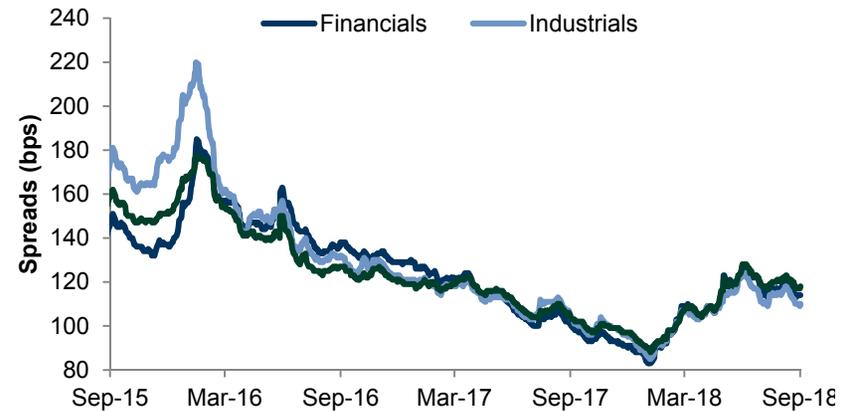
### US Treasury Yields (%)



Source: Bloomberg

- The US yield curve flattened further over the third quarter of 2018, as the spread between the 2-year and 30-year nodes of the curve decreased by 8bps to close at 39bps. 30-year yields increased by 22bps, whilst 2-year yields increased by 29bps.
- The Federal Open Market Committee (FOMC) delivered the third rate hike of 2018 at its meeting in September. The median policymaker projection points to one further rate hike this year and three in 2019. US CPI rose 2.7% year-over-year (YoY) in August, slowing from July's 2.9% largely due to downside surprise in volatile CPI components.

### Global Investment Grade Corporate Spreads



Source: Bloomberg

- Global investment grade corporate spreads tightened in the third quarter of the year, as spreads on the Bloomberg Barclays Global Aggregate Corporate index fell by 13bps to 112bps over sovereigns. This resulted from a combination of strong corporate fundamentals, evidenced by solid second quarter corporate earnings releases, as well as better risk sentiment, particularly in the month of July. Industrials led performance, tightening by 13bps, whilst Utilities lagged, tightening by 9bps. Financials tightened by 12bps. Regionally, the US led, tightening by 17bps to 106bps over Treasuries. Euro corporates tightened more modestly by 8bps to 114bps over sovereigns as concerns around Italian political risk remained.
- New issuance remained healthy in both the US and Europe in Q3 2018, with totals amounting to \$272bn and €129bn respectively. New issuance was dominated by Financials in both regions, in contrast to Q1 and Q2 2018 when Industrials dominated.

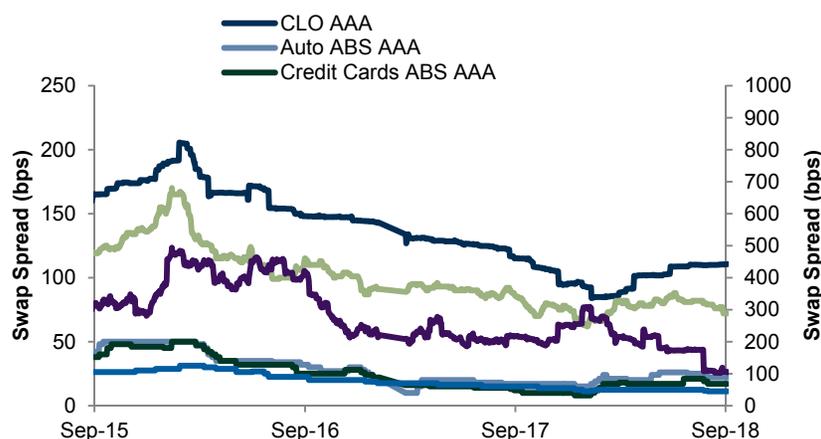
As of September 28, 2018. Past performance does not guarantee future results, which may vary.

# Market Review



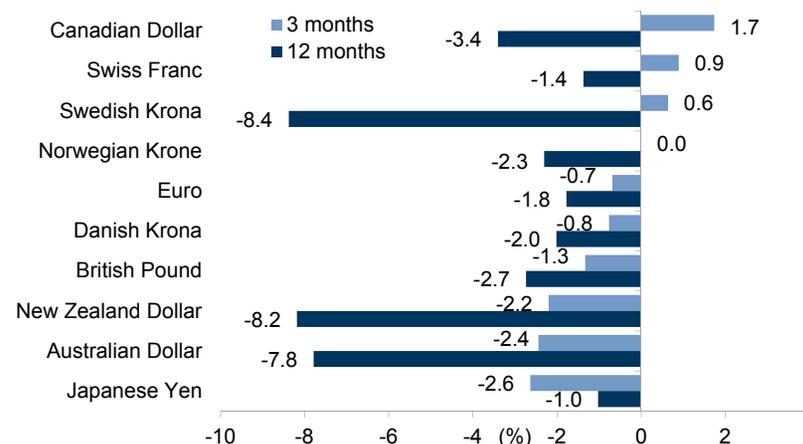
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## Securitized Credit



Source: JP Morgan, GSAM

## Major Currency Movements vs. USD (%)



Source: Bloomberg

- Non-Agency RMBS continued its strong performance within securitized credit over Q3 2018 as prepayment rates on seasoned non-agency MBS collateral have generally increased, particularly for option-ARM collateral, as home prices continue to increase.
- Student Loan ABS and Auto ABS spreads have tightened over the third quarter as risky assets had a positive run mainly in July and September.
- YTD 2018, CMBS cash bonds have outperformed IG corporates, while the higher carry theme helped wider spread products (e.g., student loan ABS) to have higher returns than narrower spread products (e.g., auto loan ABS).
- Performance of G10 currencies vs the US dollar over the quarter was mixed. The Canadian dollar was the strongest performing G10 currency in the quarter, over the period the Bank of Canada increased interest rates and revised up their projections for economic growth, despite potential economic headwinds from increased US import tariffs on Steel and Aluminium.
- The Japanese yen was the weakest performing G10 currency over the quarter. The BoJ surprised markets by tweaking its policy framework to allow more flexibility in its long-term yield target, whilst leaving interest rates unchanged. Generally economic data has been softer over the period with softer inflation particularly of note.

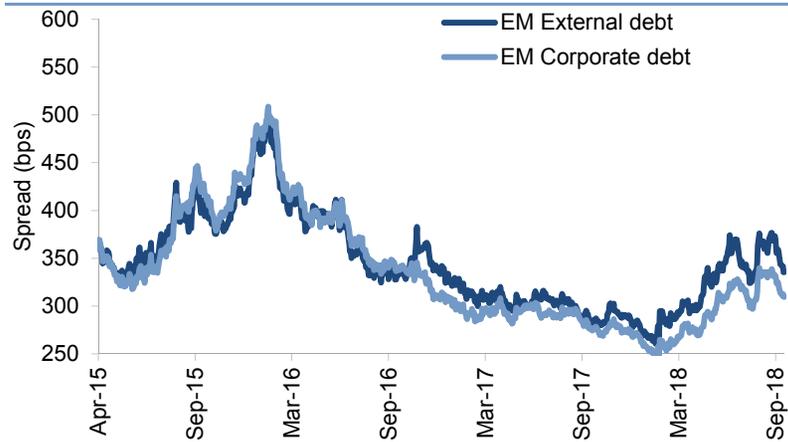
Source: JP Morgan, GSAM, Bloomberg. CLO AAA : CLO Post AAA Portfolio discount margin; Credit Card ABS AAA : Credit Cards Fixed AAA – 3 Year spread to swap; Non-Agency RMBS AAA : ABX. HE. 07-1. AAA Cashflow spread (base case); Auto ABS AAA : Auto (Prime) Fixed AAA – 3 Year Spread to Swap; CMBS AAA : New issue CMBS 10 year on the run AAA Spread to Swap; Student Loan (FFELP) ABS AAA : Student Loans (FFELP) AAA – 5 year spread to Libor. As of September 28, 2018. **Past performance does not guarantee future results, which may vary.**

# Market Review



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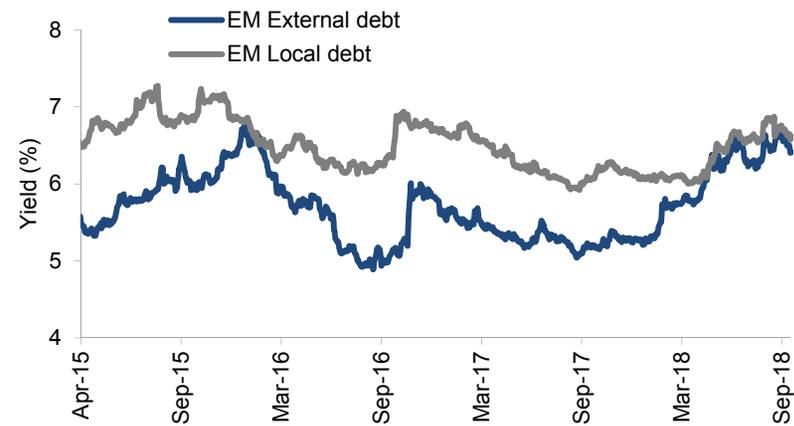
## External Emerging Market Debt Spreads



Source: Bloomberg

- Both EM external and EM Corporate spreads tighten over the quarter by 34bps and 17bps, respectively. Spreads on EM external debt ended at 335bps, while EM corporate spreads were 310bps at the end of the quarter. EM external debt returned 2.3% during the quarter while EM corporate debt returned 1.3%.
- The rebound in emerging markets was driven by a variety of positive factors such as progress on the US-Mexico NAFTA negotiations and a committed government in Argentina following orthodox policies while negotiating a revised IMF deal. EM assets and in particular EM currencies came under pressure in August amid country-specific developments. This included concerns around external funding needs in Turkey and Argentina, and doubts around economic reform progress in South Africa.

## Local and External Emerging Market Debt Yields



Source: Bloomberg

- The JPMorgan GBI-EM Global Diversified Index (unhedged, in US dollars) returned -1.8% in Q3, comprising of -1.6% currency depreciation and -0.2% from local rates. Majority of the weakness in EM local markets over Q3 could be attributed to the events in Turkey and Argentina. Concerns around external funding needs in Turkey and Argentina, as well as credibility of the central banks put the currencies under intense pressure.
- Recent acute weakening of the Turkish lira is partly driven by a large current account deficit but more so by geo-political gyrations – domestic elections and relationship with the US. Turkish diplomatic relations with the US have been deteriorating with the US imposing sanctions on two top officials in an attempt to force Turkey to release an American pastor under detention, which further pressured the currency. In a bid to shore up its ailing currency, the central bank in Argentina raised its policy rate by 1,500bps to 60% and committed to maintain a highly restrictive monetary stance at least through to year-end. Argentine treasury minister Dujovne announced a revised fiscal plan aiming to restore investors' confidence, targeting a primary deficit of 2.6% of GDP this year (versus the 2.7% of GDP previously agreed with the IMF), a primary balance in 2019 and a 1.0% of GDP primary surplus in 2020.



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### III. Performance and Attribution

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# London Borough of Tower Hamlets Performance

GS Strategic Absolute Return Bond II Portfolio (I Flat Acc. GBP Hedged Share Class)



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As Of September 30, 2018	(%)			(bps)
	Portfolio (Net)	Benchmark <sup>1</sup>	Target (Benchmark +4%)	Difference vs Target (Net)
<b>Trailing Periods</b>				
Last 1 Year	-1.74	0.63	4.63	-637
Last 6 Months	-1.84	0.37	2.35	-418
Last 3 Months	-0.19	0.20	1.18	-137
<b>Quarters</b>				
1Q18	-0.10	0.14	1.12	-122
2Q18	-1.65	0.17	1.15	-281
3Q18	-0.19	0.20	1.18	-137
<b>Months</b>				
Apr-18	0.11	0.06	0.39	-28
May-18	-0.69	0.05	0.38	-107
Jun-18	-1.07	0.05	0.38	-145
Jul-18	0.94	0.06	0.39	55
Aug-18	-1.75	0.07	0.40	-214
Sep-18	0.63	0.07	0.39	24
<b>Since Inception<sup>2</sup></b>				
<b>Annualised Return</b>	0.35	0.49	4.49	-414

<sup>1</sup> Benchmark: 3-Month LIBOR (GBP) Benchmark.

<sup>2</sup> Client performance inception date: 04-Apr-2016.

Past performance does not guarantee future results, which may vary.

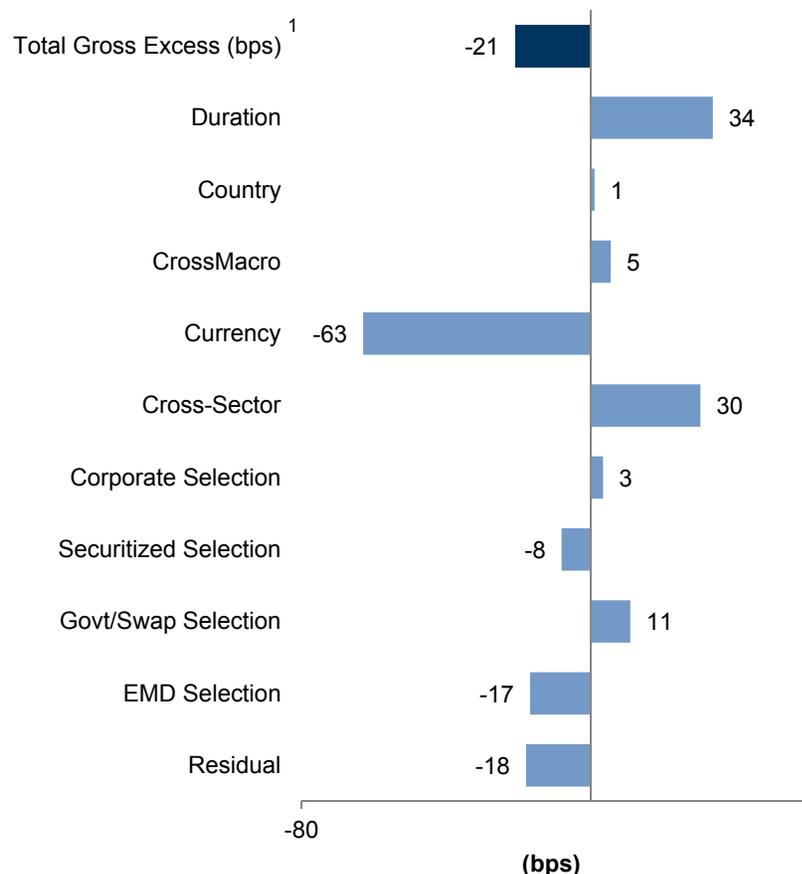
# Performance Attribution

3Q 2018



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## Primary drivers of performance



- The portfolio underperformed over the period. This was predominantly due to our Currency and Emerging market debt selection strategies, whilst the Duration and Cross-Sector strategies contributed positively.
- Currency strategy was the biggest detractor from performance. The primary detractor came from our long EM Currency position in the Argentine peso. Argentine assets have come under further pressure this quarter amid concerns on the Government's ability to implement fiscal consolidation. Argentine peso experienced pronounced weakness in August depreciating 30% versus the dollar
- Emerging Market Debt selection strategy also detracted due to our exposure to Argentina External debt as Argentine assets continued to weaken over the period amid soaring inflation, continued sell-off in the Argentine peso and concerns on whether President Macri can remain committed to his pro-business agenda. Our overweight external Venezuelan debt position also underperformed as bond prices continued to remain under pressure
- Our Duration strategy also contributed to performance due to our underweight at the US 5yr node. We are biased to be underweight front-end rates in the US given domestic strength and market under-pricing of Fed policy over the next 12-18 months. We think a move higher in longer-term rates is likely to be contained by strong demand from the pension community (which is a function of strong equity market performance, weak bond market performance and a recent increase in contributions).
- The cross-sector strategy also contributed to performance driven by our overweight positioning in the Collateralized Loan Obligation securities.

<sup>1</sup>Gross Excess vs the Benchmark

Note: Allocations may not sum to total due to rounding. Residual/Other: The difference between the fixed income proprietary risk and attribution model and the official GSAM performance system may be due to varying pricing, valuation, and data sources, as well as ad hoc custodian and accounting reconciliations. Benchmark: 3 Month GBP LIBOR. **Past performance does not guarantee future results, which may vary.** Portfolio Holdings may not be representative of current or future investments. Future portfolio holdings may not be profitable. The returns presented herein are gross and do not reflect the deduction of investment advisory fees, which will reduce returns.



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## IV. Portfolio Positioning

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# GS Strategic Absolute Return Bond II Portfolio

## Current Positioning and Opportunities - Details (Macro)



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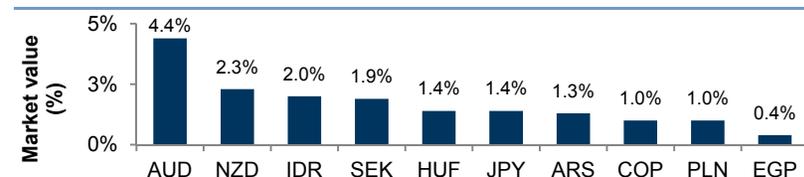
### Interest Rate Duration

<b>Total Portfolio Interest Rate Duration<sup>1</sup> :</b>	<b>0.24 years</b>
Active Duration:	-1.07 years
Country:	0.49 years
Other <sup>2</sup> :	0.82 years

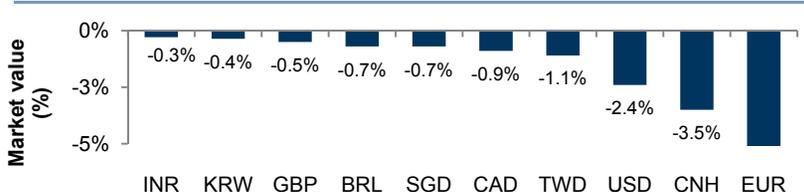
### Active Duration Positioning

<b>Active Duration:</b>	<b>-1.07 years</b>
US: -0.10 years	UK: --
Europe: -- years	Sweden: -0.47 years

### Top Net Currency Exposure



### Bottom Net Currency Exposure



### Country Strategy Positioning

<b>Country Strategy:</b>	<b>0.49 years</b>
US: 2.18 years	Canada: -0.04 years
UK: -1.79 years	Europe: 3.4 years
Sweden: -3.05 years	Other: -0.21 years

### Key Cross Macro positions

#### Relative Financial Conditions:

Overly Restrictive	Too Accommodative	Expression
Europe	Sweden	Long EUR vs Short SEK Rates, Short EURSEK

#### Correlated Asset Relative Value:

UK vs Europe	Long GBP Rates vs Short EUR rates Short EURGBP
Norway vs Europe	Long NOK Rates vs Short EUR rates Short EURNOK
Long Italy/Spain vs short Main/Xover	Long Italy 2y/Spain 5y vs short 5y Main/Xover

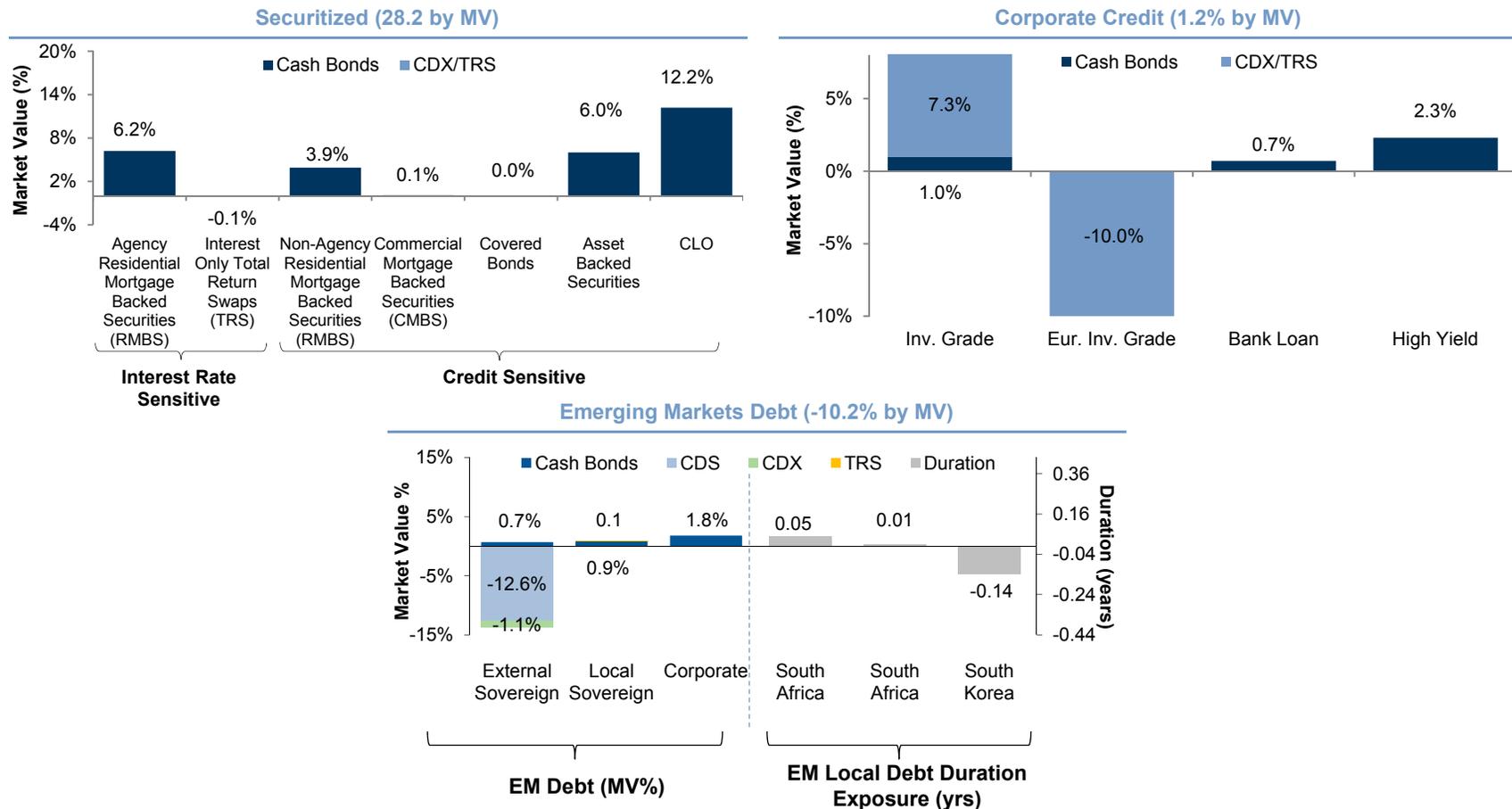
Source: GSAM. Data as of September 30, 2018 and subject to change. Any mention of an investment decision is intended only to illustrate our investment approach and/or strategy, and is not indicative of the performance of our strategy as a whole. It should not be assumed that any investment decisions shown will prove to be profitable, or that any investment decisions made in the future will be profitable or will equal the performance of the investments discussed herein. A complete list of past recommendations is available upon request. Please see additional disclosures. **Past performance does not guarantee future results, which may vary.** <sup>1</sup> Interest Rate Duration is a modified measure of Total Average Duration that has been estimated by GSAM. This modified measure seeks to take account of the different behaviours of different bond markets around the world by re-expressing all duration exposures to a common US market standard. The goal is to improve the estimate of the portfolio's sensitivity to changes in interest rates. This estimate is guided by historical market observations amongst markets which are themselves subject to change over time and may not necessarily be reflected by the actual outcome. This refers to the duration adjusted for volatility and not raw duration. <sup>2</sup> Others comprises of EMD, Cross Sector, Cross Macro and Gov./Swaps strategies. Portfolio holdings and/or allocations shown above are as of the date indicated and may not be representative of future investments. The holdings and/or allocations shown may not represent all of the portfolio's investments. Future investments may or may not be profitable.

# GS Strategic Absolute Return Bond II Portfolio

## Current Positioning and Opportunities - Details (Sector)



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Source: GSAM. Data as of September 30, 2018 and subject to change. Any mention of an investment decision is intended only to illustrate our investment approach and/or strategy, and is not indicative of the performance of our strategy as a whole. It should not be assumed that any investment decisions shown will prove to be profitable, or that any investment decisions made in the future will be profitable or will equal the performance of the investments discussed herein. A complete list of past recommendations is available upon request. Please see additional disclosures. **Past performance does not guarantee future results, which may vary.** Portfolio holdings and/or allocations shown above are as of the date indicated and may not be representative of future investments. The holdings and/or allocations shown may not represent all of the portfolio's investments. Future investments may or may not be profitable.

# Risks

## GS Strategic Absolute Return Bond II Portfolio



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- **Market risk** - the value of assets in the Portfolio is typically dictated by a number of factors, including the confidence levels of the market in which they are traded.
- **Operational risk** - material losses to the Portfolio may arise as a result of human error, system and/or process failures, inadequate procedures or controls.
- **Liquidity risk** - the Portfolio may not always find another party willing to purchase an asset that the Portfolio wants to sell which could impact the Portfolio's ability to meet redemption requests on demand.
- **Exchange rate risk** - changes in exchange rates may reduce or increase the returns an investor might expect to receive independent of the performance of such assets. If applicable, investment techniques used to attempt to reduce the risk of currency movements (hedging), may not be effective. Hedging also involves additional risks associated with derivatives.
- **Custodian risk** - insolvency, breaches of duty of care or misconduct of a custodian or sub-custodian responsible for the safekeeping of the Portfolio's assets can result in loss to the Portfolio.
- **Contingent Convertible ("Coco") Bond Risk:** Investment in this particular type of bond may result in material losses to the Portfolio based on certain trigger events. The existence of these trigger events creates a different type of risk from traditional bonds and may more likely result in a partial or total loss of value or alternatively they may be converted into shares of the issuing company which may also have suffered a loss in value. Such trigger events may include a reduction in the issuers' capital ratio, determination by a regulator or the injection of capital by a national authority. Investors should be aware that in the event of a financial crisis that action by regulators or the companies themselves may cause concentrations of these trigger events across the Portfolio.
- **Interest rate risk** - when interest rates rise, bond prices fall, reflecting the ability of investors to obtain a more attractive rate of interest on their money elsewhere. Bond prices are therefore subject to movements in interest rates which may move for a number of reasons, political as well as economic.
- **Credit risk** - The failure of a counterparty or an issuer of a financial asset held within the Portfolio to meet its payment obligations will have a negative impact on the Portfolio.
- **Derivatives risk** - certain derivatives may result in losses greater than the amount originally invested.
- **Counterparty risk** - a party that the Portfolio transacts with may fail to meet its obligations which could cause losses.
- **Emerging markets risk** - emerging markets are likely to bear higher risk due to lower liquidity and possible lack of adequate financial, legal, social, political and economic structures, protection and stability as well as uncertain tax positions.
- **High yield risk** - high-yield instruments, meaning investments which pay a high amount of income generally involve greater credit risk and sensitivity to economic developments, giving rise to greater price movement than lower yielding instruments.
- **Leverage risk** - the Portfolio may operate with a significant amount of leverage. Leverage occurs when the economic exposure created by the use of derivatives is greater than the amount invested. A leveraged Portfolio may result in large fluctuations in the value of the Portfolio and therefore entails a high degree of risk including the risk that losses may be substantial.

For full description of risks please refer to the Prospectus.

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## V. Macro Outlook

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## Global Growth

### Expansionary but...

Global growth is slower and less synchronized but still expansionary

US growth remains on solid footing despite being 10 months away from the longest expansion on record

Idiosyncratic EM volatility has been relatively contained

### ...with downside risks

European growth and politics remain fragile; Italian fiscal sustainability and Brexit are centre-stage

US-China trade tensions have intensified

## Inflation

### Gradual normalization continue

Philips curve relationship of tight labour markets resulting in wage growth is becoming more evident

US inflation is at target

Europe and Japan are notable exceptions; core inflation in both regions is subdued with few signs of a near- to medium-term pickup

## Monetary Policy

### More monetary tightening ahead

The Fed has company on its hiking path – the UK and Canada have raised rates this past year and Nordic economies look set to join soon

Risk assets can digest monetary tightening if it is gradual, well-telegraphed and providing growth holds up.

# Key Investment Views



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Key positions/views	
Rates – Directional Views	<p>Bearish front-end US rates given domestic macro strength and market underpricing of near-term Fed policy</p> <p>Bullish long-end US rates amid firm pension demand</p>
Rates – Relative Value Views	<p>Overweight rates in Europe vs DMs where we anticipate monetary tightening to occur earlier and for longer (we expect the ECB to raise rates in late-2019 but we see limited scope for rates to move beyond 0% in this cycle)</p>
Currencies	<p>Modestly overweight EM currencies – awaiting renewed growth momentum and attractive valuations to add exposure</p> <p>Overweight cyclical European currencies (HUF, PLN) vs EUR</p> <p>Neutral USD given medium-term twin deficit concerns and extended investor overweight positioning</p>
Cross Macro	<p>Positioned for tighter Swedish and US financial conditions relative to Europe<sup>1</sup>.</p>
Spread Sectors	<p><b>US Corporate Credit</b> – Near-term constructive due to healthy fundamentals (e.g. strong earnings with positive momentum) and signs of deleveraging</p> <p><b>EMD</b> – Modestly overweight external debt with idiosyncratic exposure to EM Corporate and Local debt</p> <p><b>Securitized Credit</b> - Overweight high-quality, short duration securitized credit. Underweight agency MBS (given headwinds posed by reduced Fed reinvestments)</p>

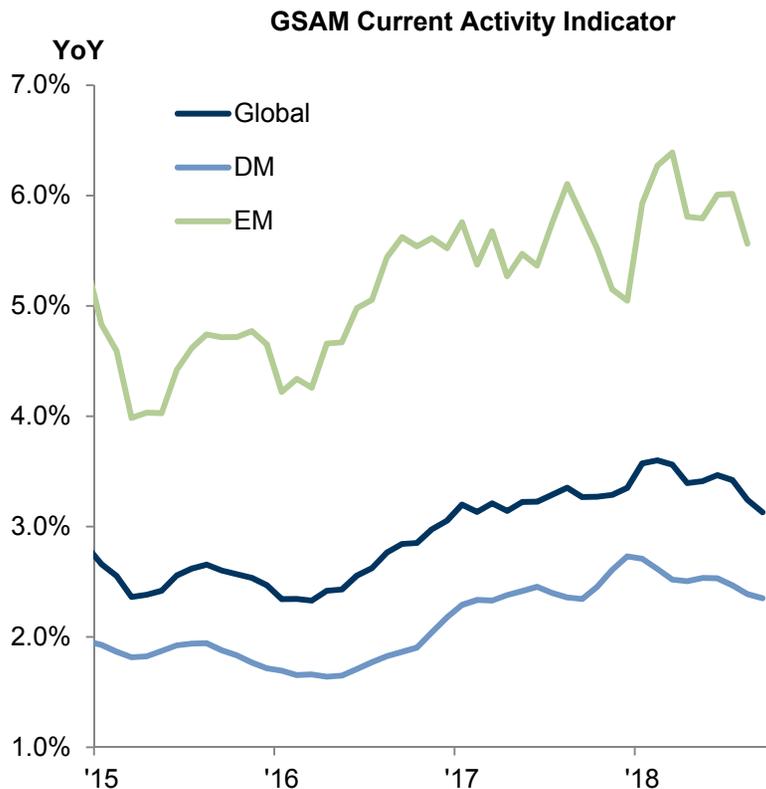
Source: GSAM. As of October 1, 2018. <sup>1</sup> Positioning for tighter financial conditions involves relative value positions whereby we are underweight rates and overweight the currency.

# Growth: Global picture – slower pace but still expansionary



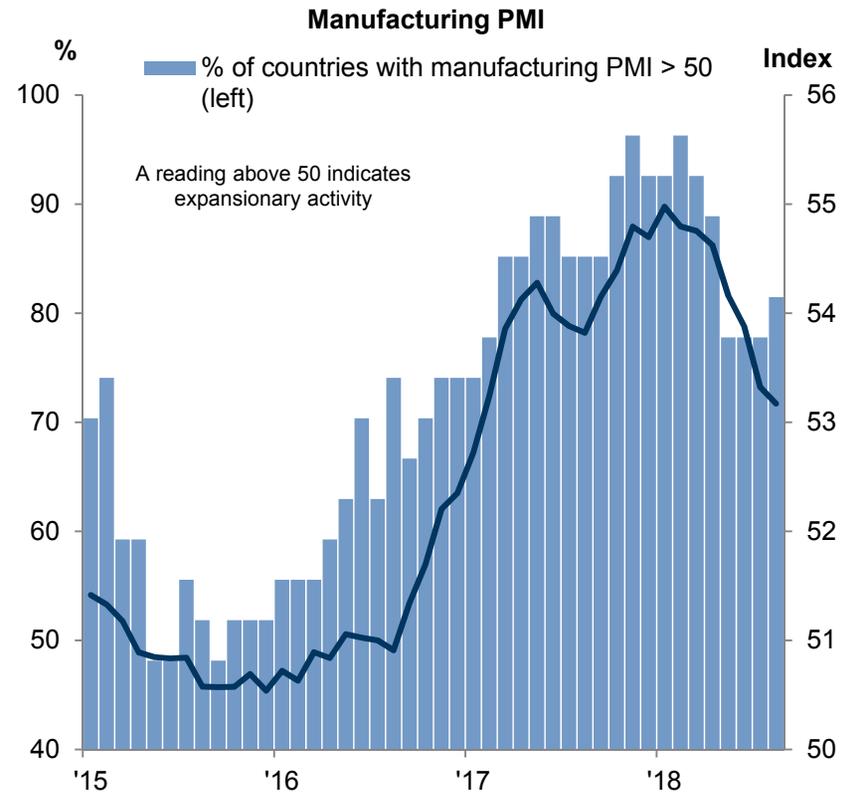
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## Slower pace of global growth...



Source: GSAM, 3 month moving averages. Global and DM as of September 2018. EM as of August 2018. Current Activity Indicators provide us with a timely read of economic activity. We identify data which is released ahead of GDP figures and likely to be highly correlated with economic activity to predict GDP.

## ...but most economies are still expanding



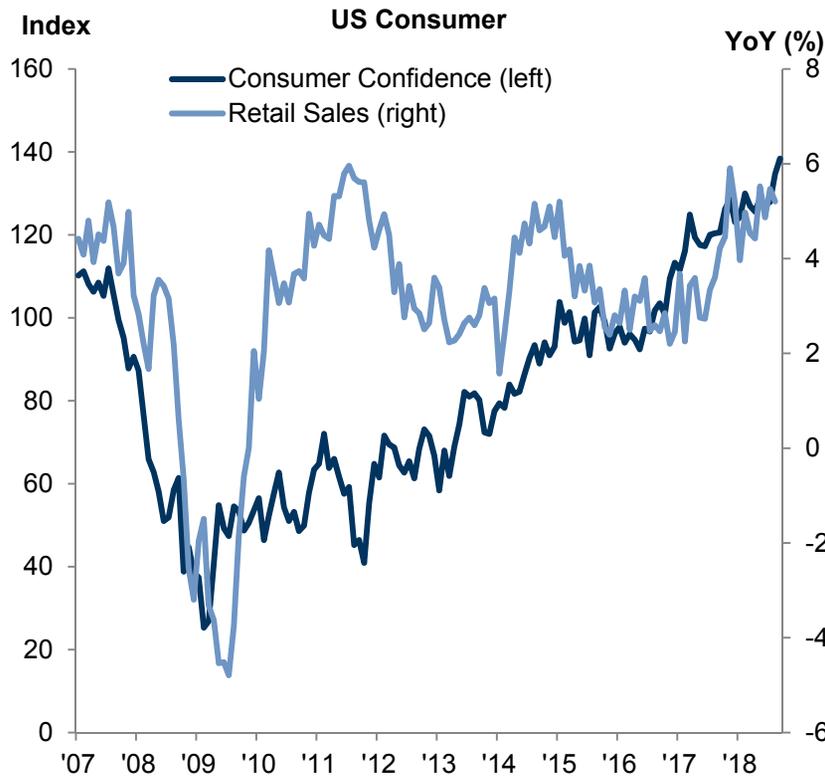
Source: Macrobond. As of August 2018. Based on readings for 26 countries (G10 + 16 EM).

# Growth: US exceptionalism remains intact



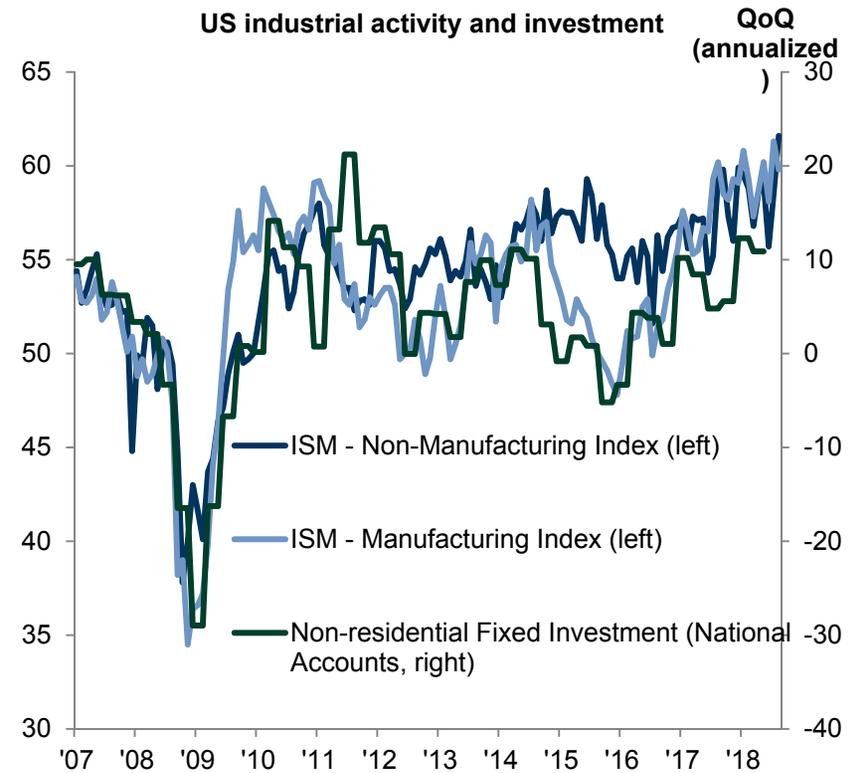
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## Cycle-high consumer confidence and activity...



Source: Macrobond. Consumer confidence as of September 2018. Retail sales (control group) as of August 2018.

## ...similar story for business activity



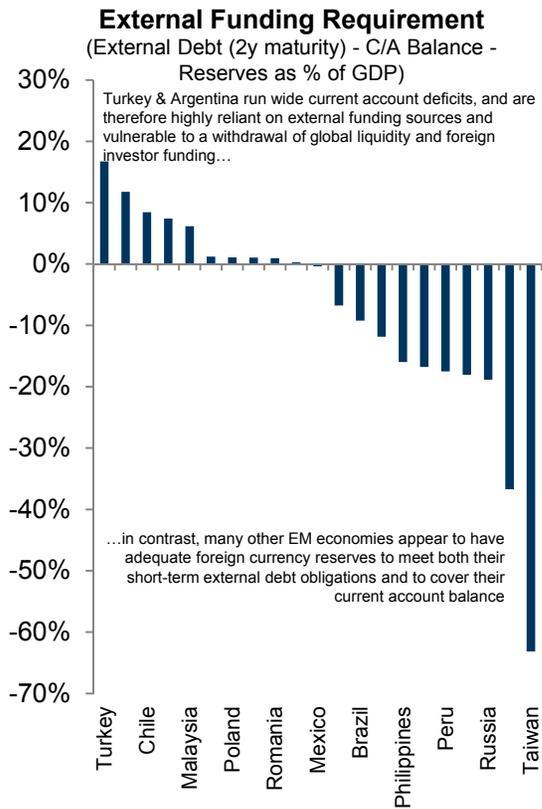
Source: Macrobond. ISM Index data as of September 2018. Non-residential fixed investment as of Q2 2018.

# Growth: EM volatility – idiosyncratic not systemic



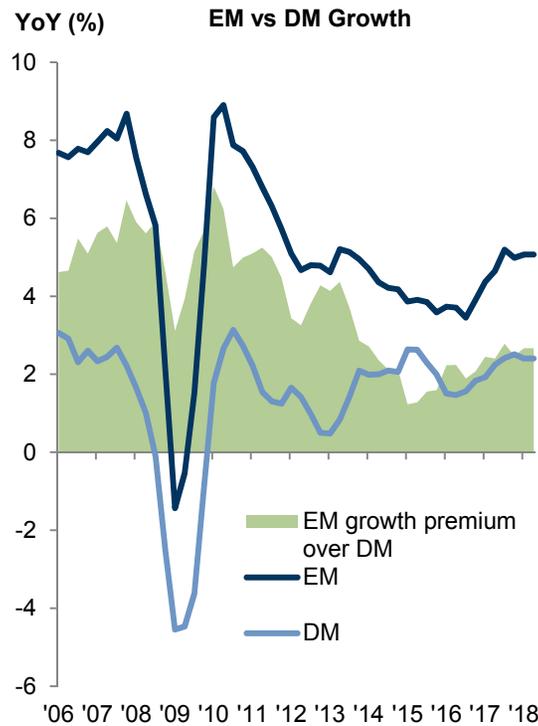
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## Economies with macro imbalances have sold off...



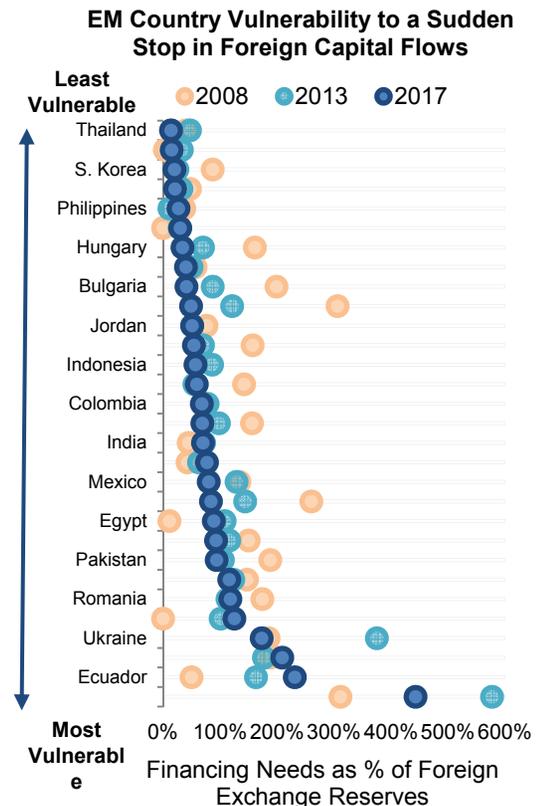
Sources: Haver Analytics, Goldman Sachs Global Investment Research, as of Q1 2018. Positive value represents external funding needs in excess of foreign currency reserves.

## ...but the EM growth premium remains intact...



Source: Macrobond. As of Q2 2018. GSAM calculations. Nominal GDP-weighted series for 22 EM economies and 10 DM economies. Most recent reading is approximated based on countries that have reported Q2 GDP.

## ...and resilience in most countries has improved in recent years



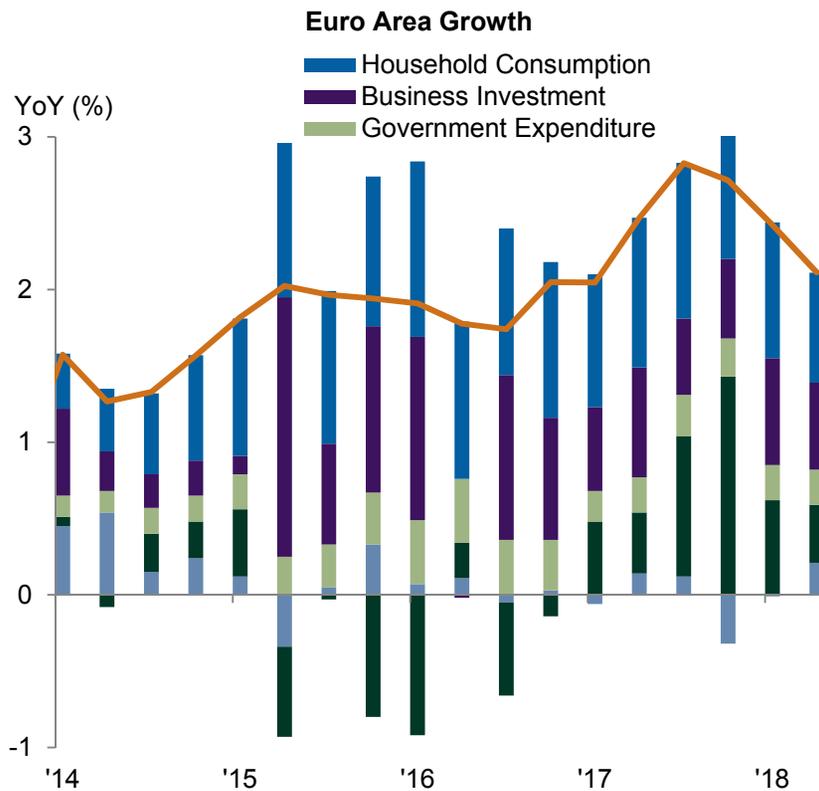
Source: Citigroup, GSAM. As of December 2017. Note: For illustration purposes, 2008 data has been rounded to zero for China (-6%) and Malaysia (-7%). Foreign financing needs are calculated in line with the expanded Greenspan-Guidotti rule, consisting of short-term debt minus current account balance.

# Growth: Euro area - reverting to a trend-like pace



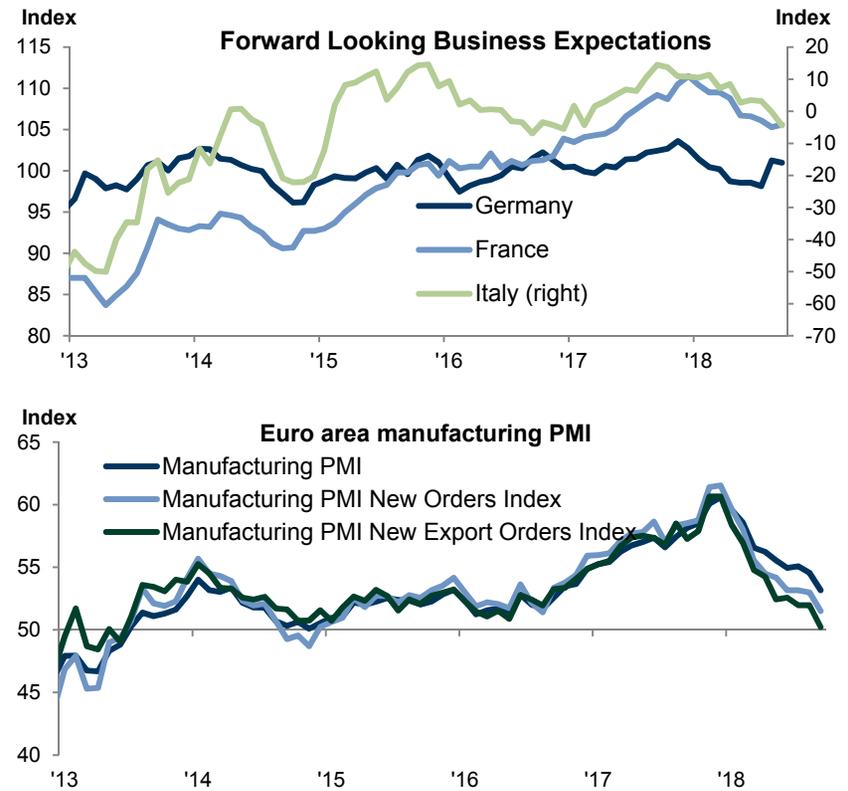
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## Growth moderation has been broad-based



Source: Macrobond. As of Q2 2018.

## Leading indicators have decelerated



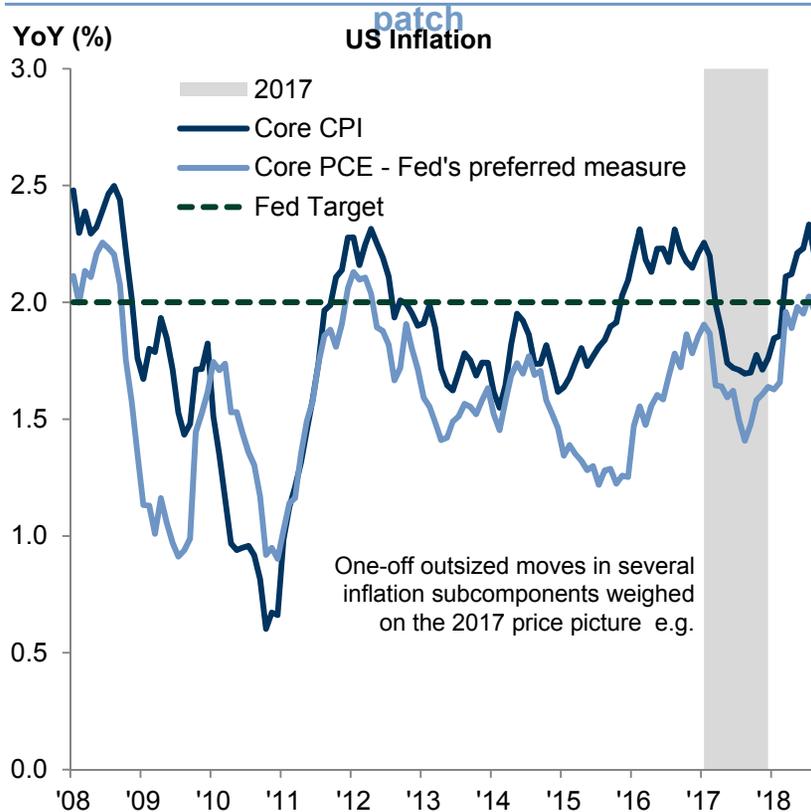
Source: Macrobond. Top chart – as of September 2018. Bottom chart - Manufacturing PMI as of September 2018.

# Inflation: US is at target with upside risks ahead



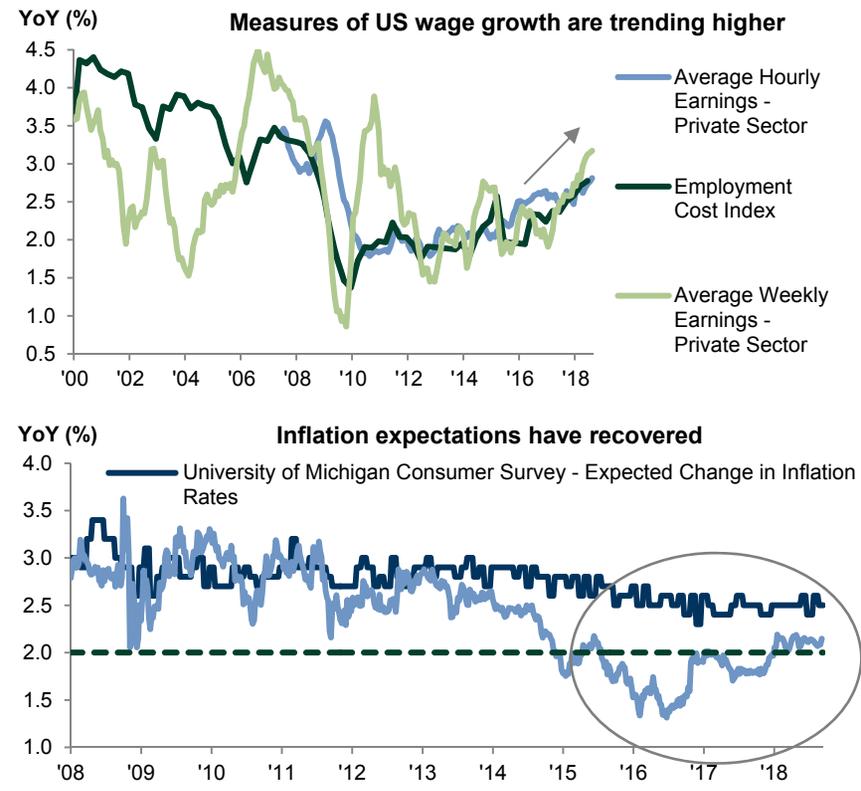
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## US inflation has normalized post its 2017 soft patch



Source: Macrobond. As of August 2018.

## Macro factors present upside risks



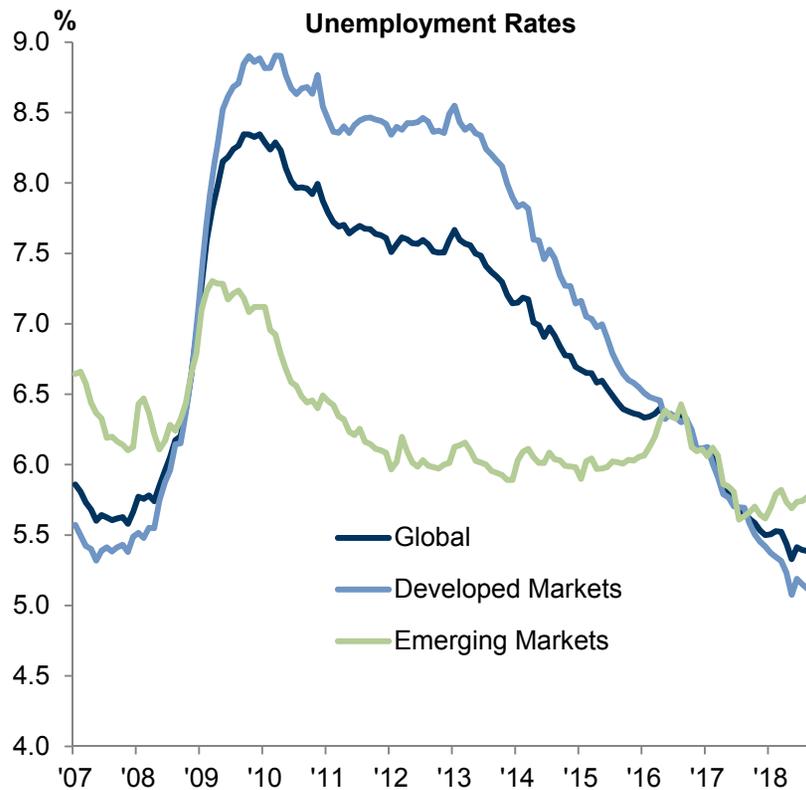
Source: Macrobond. Top chart - average hourly and weekly earnings as of August 2018, ECI as of July 2018. Bottom chart - inflation expectations as of September 28, 2018.

# Inflation: Philips curve relationship appears to hold



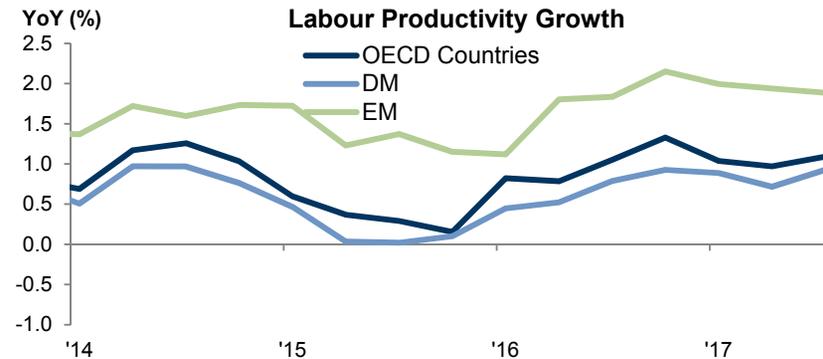
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## Global labour market continues to tighten

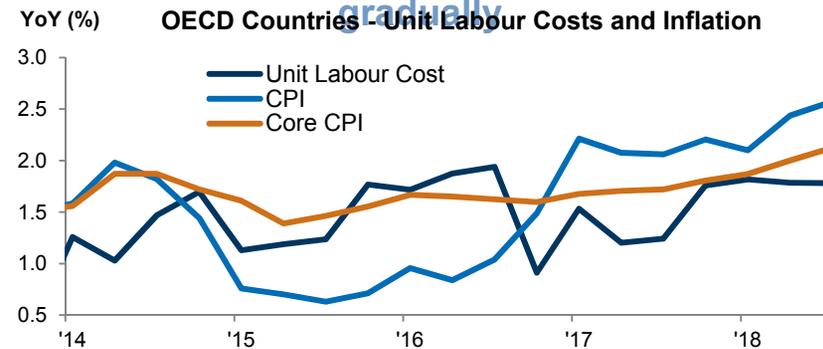


Source: Macrobond, GSAM. As of August 2018.

## A pick up in productivity and wage growth...



## ...is feeding through to core inflation, albeit gradually



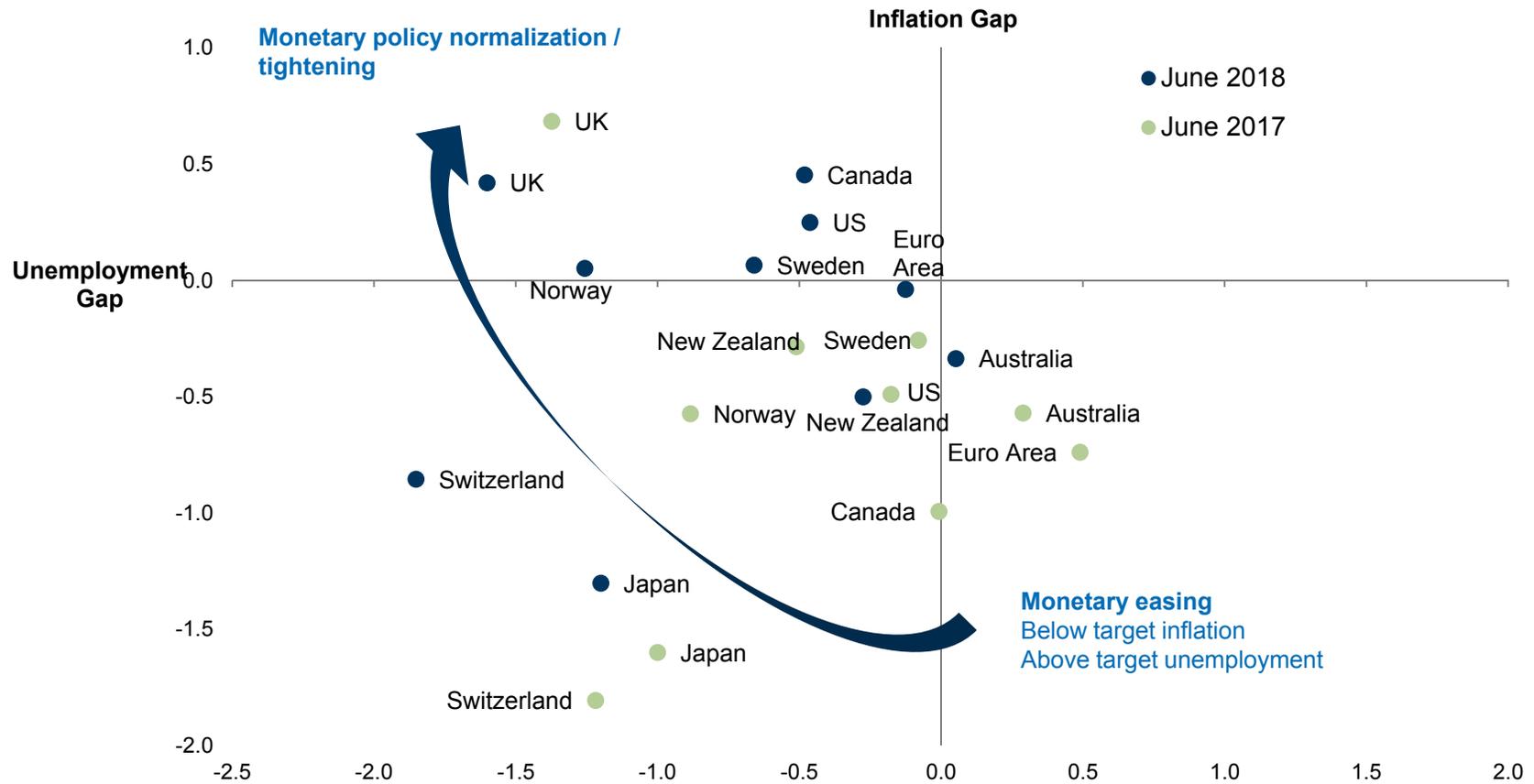
Source: Macrobond, DM and EM labour productivity (GDP per hour) are GSAM calculations, as of Q2 2018.

The Philips curve reflects an inverse relationship between rates of unemployment and a corresponding rise in wages within an economy, which can generate broader price pressures. Most key developed market (DM) central banks subscribe to this relationship. Wage growth is a function of the labour share of total income in an economy and productivity, thus higher productivity can generate higher wages and further reinforce broader price pressures.

# Policy: More economies are now in a position to normalize policy



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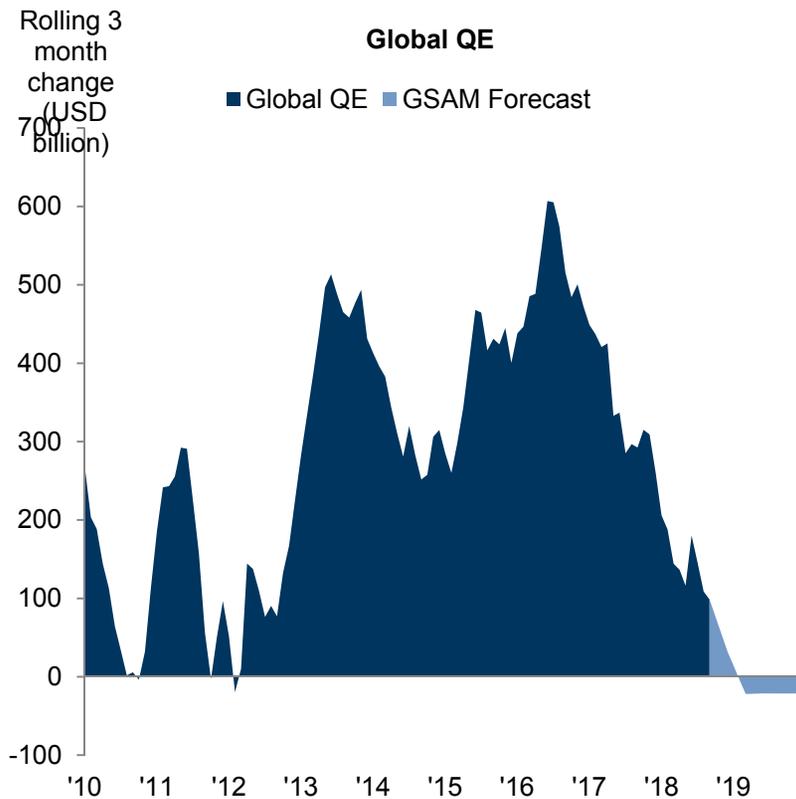
Source: GSAM. Unemployment gap = unemployment rate – OECD estimate of long-run structural unemployment (NAIRU). Inflation gap = Headline inflation – central bank target (mid-point where target is a range). As of Q2 2018 as Antipodean markets report inflation on a quarterly rather than a monthly basis.

# Policy: Liquidity withdrawal—gradual and well-telegraphed (so far)



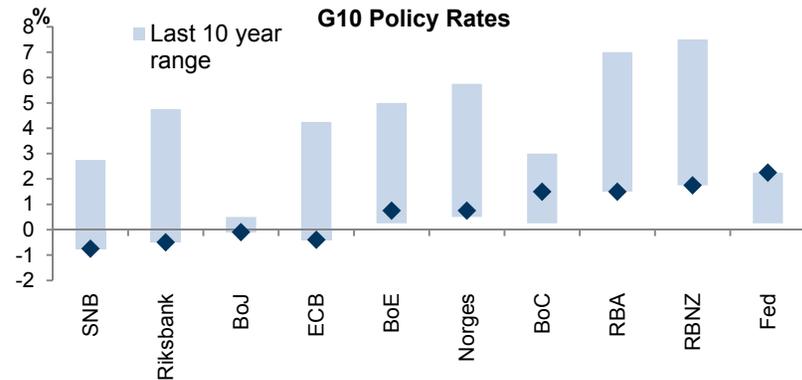
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## QE set to turn negative in 2019 and...

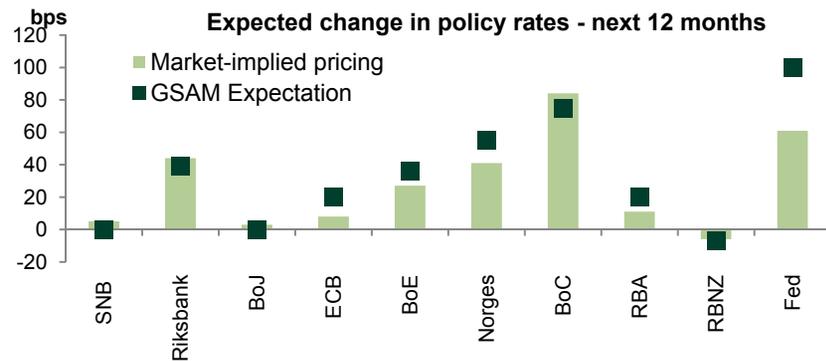


Source: Macrobond. Based on central bank balance sheets for the Fed, ECB, BoJ, BoE and Riksbank) as of August 2018. GSAM forecasts as of September 2018.

## ...policy rates are moving beyond decade lows...



## ...but at a gradual and well-telegraphed pace



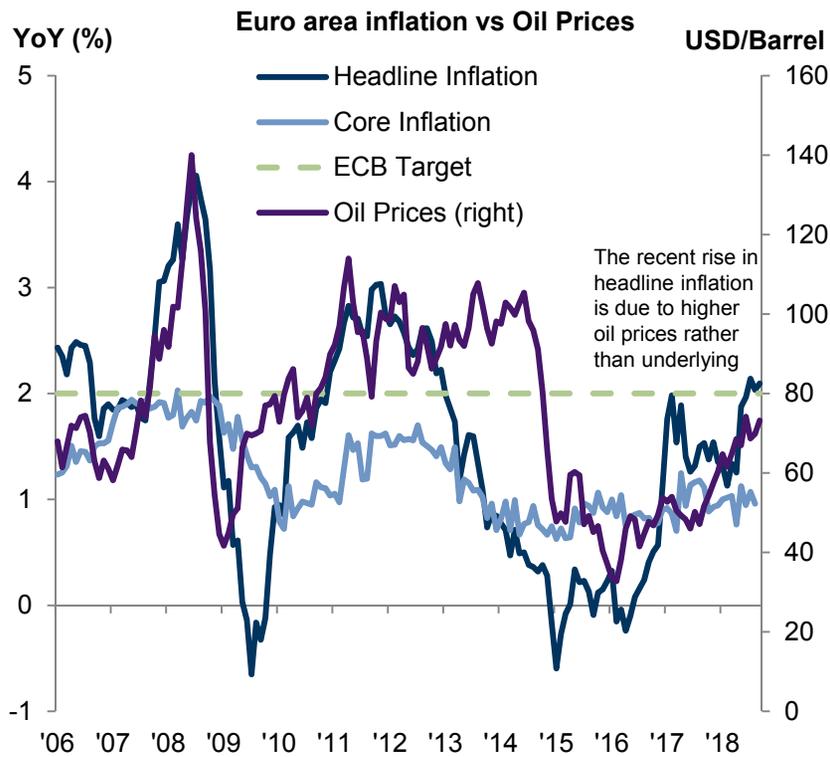
Source: Macrobond, GSAM, Bloomberg. Top chart as of October 1, 2018. Bottom chart – market-implied pricing as of October 1, 2018, GSAM expectations as of September 2018.

# Policy: ECB and BoJ to buck the tightening trend



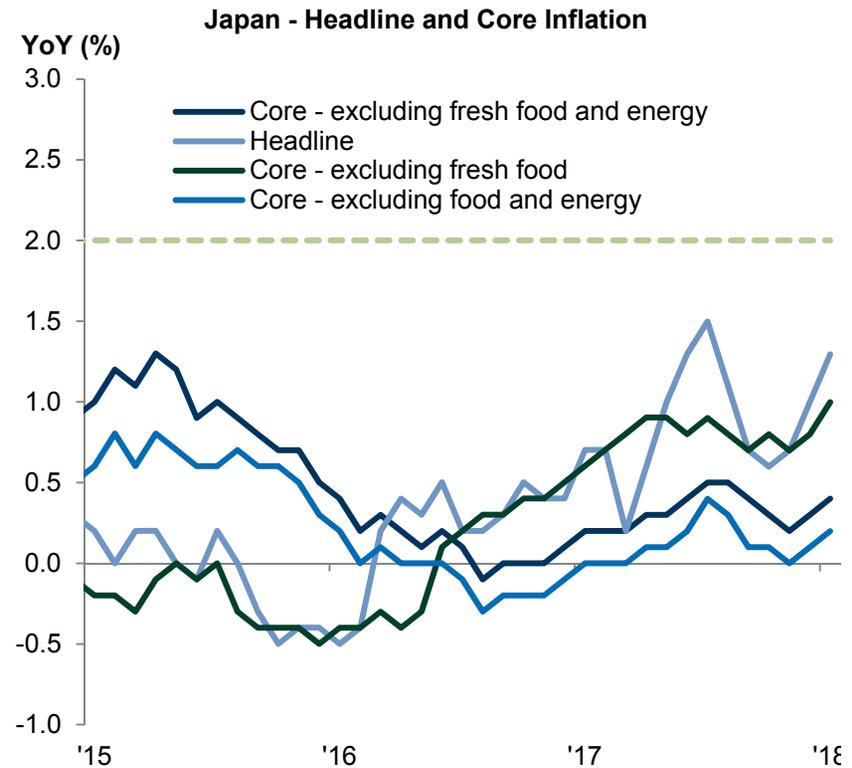
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## Euro area underlying inflation remains weak



Source: Macrobond. Headline inflation and oil prices as of September 2018 and core inflation as of August 2018.

## Low Japanese prices...however you measure it



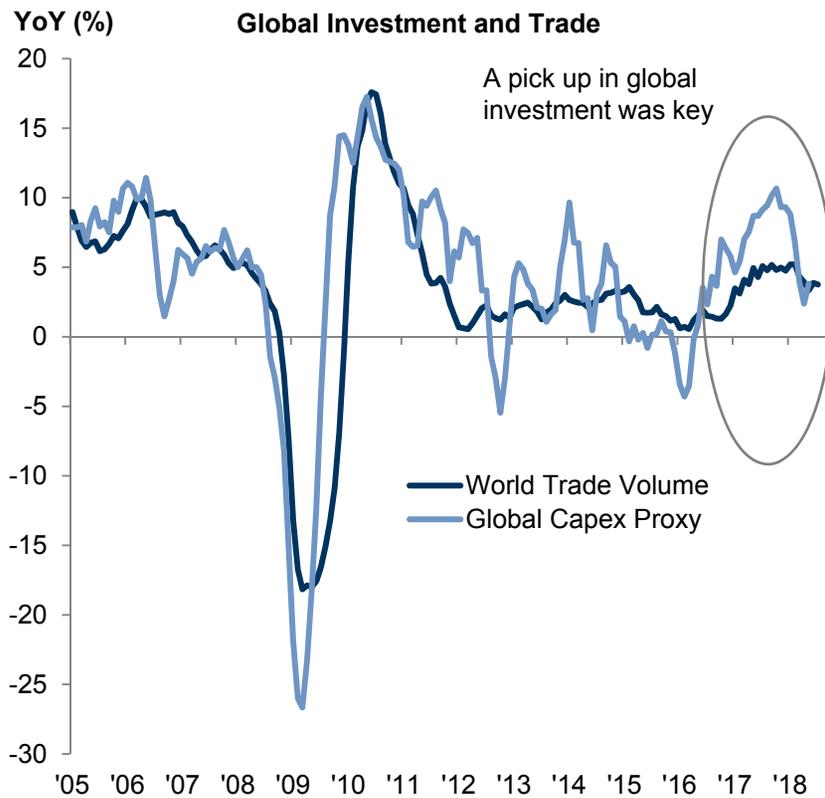
Source: Macrobond, as of August 2018.

# Risks: Trade tensions have intensified



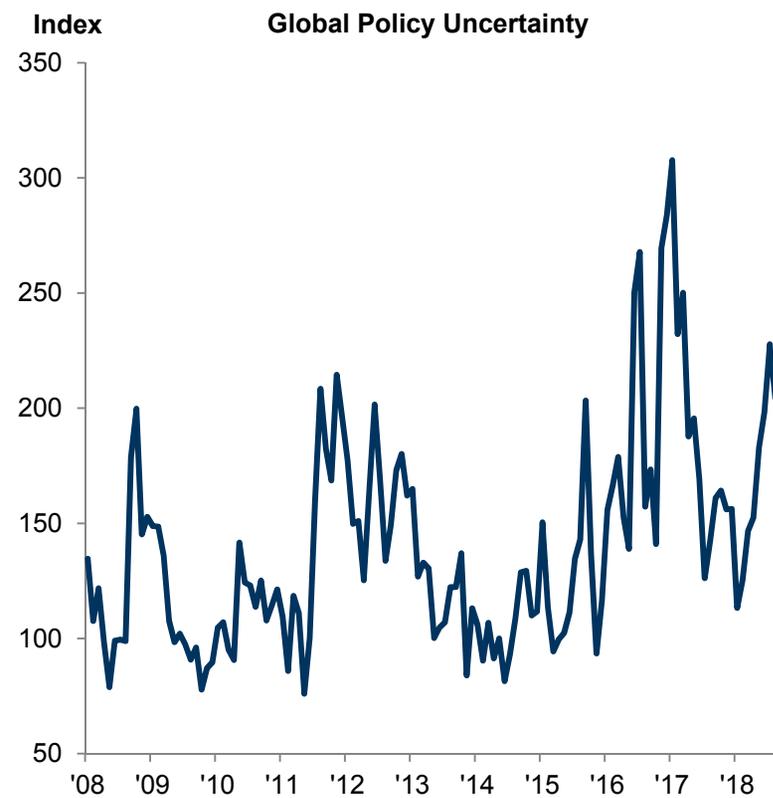
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## A slowdown in global investment and trade...



Source: Macrobond, GSAM, J.P.Morgan G3 capital goods shipments (Japan, US, Germany) + Global ex-China capital goods imports – as of June 2018.

## ...is likely linked to policy uncertainty



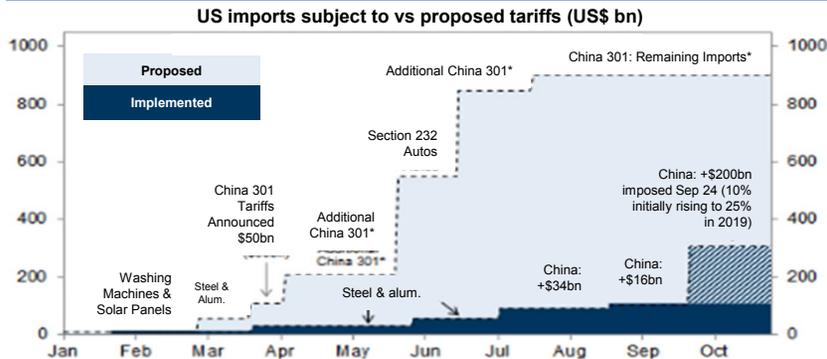
Source: Macrobond. As of September 2018.

# Risks: Trade tensions have intensified



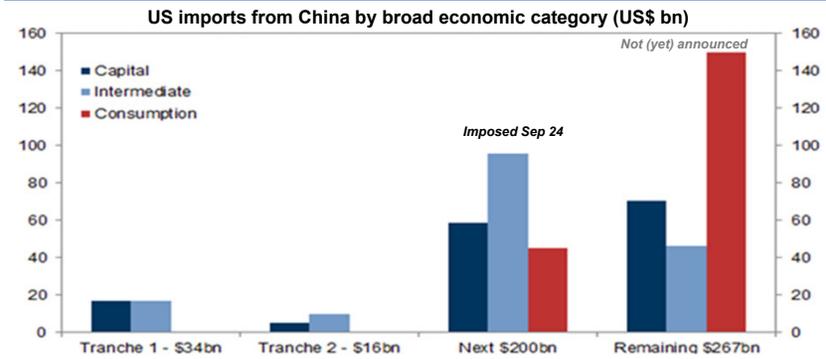
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## Tariff threats are becoming reality and are set...



Source: Goldman Sachs Global Investment Research

## ... to impact US consumers alongside producers



Source: USITC, United Nations, Goldman Sachs Global Investment Research.

## US trade policy is at a multi-decade high but this



Source: Macrobond. As of September 2018.

## ... is not reflected in risk asset valuations (ex EM)



Source: Macrobond. As of September 2018.

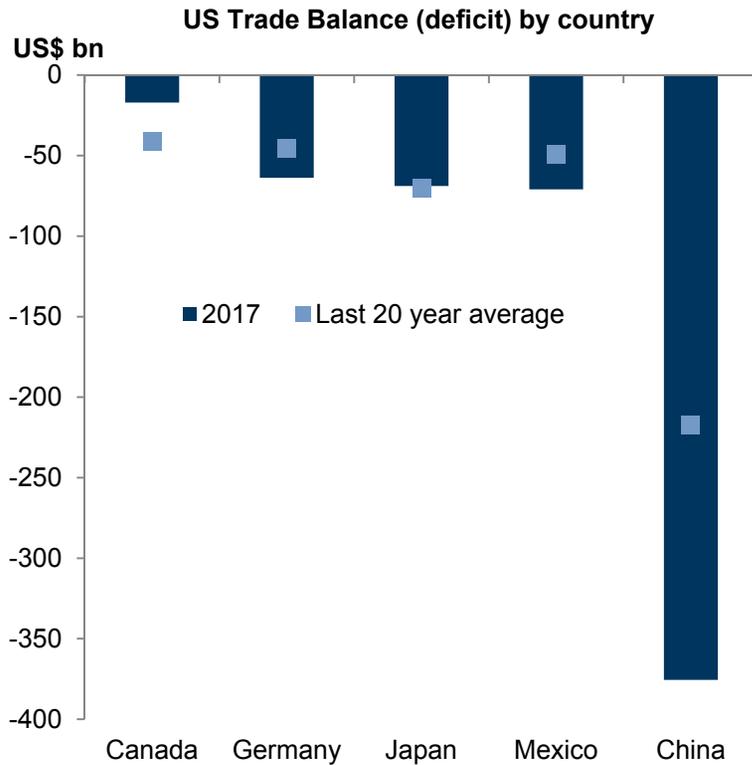
\*In April, the White House proposed tariffs on additional \$100bn in imports in response to China's retaliation. This supplemental proposal was increased to \$400bn on June 18 and to all remaining imports on July 20.

# Risks: Trade tensions have intensified



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## Continuation of targeted tariffs is likely



Source: Macrobond. Annual data - as of 2017.

## Survey data suggests trade will moderate further



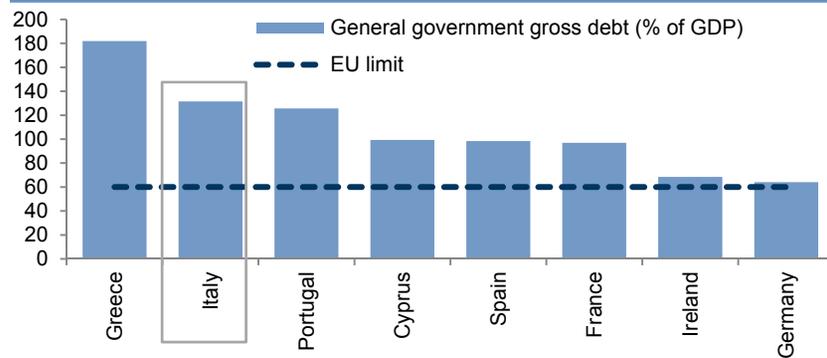
Source: Macrobond. Manufacturing PMI as of September 2018. Global trade volume as of July 2018.

# Risks: Italy is vulnerable to higher rates and lower growth



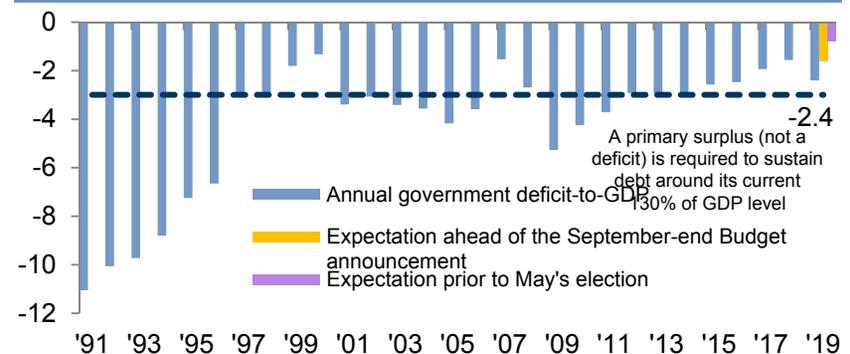
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## Europe has many fiscal rule breakers...



Source: IMF. Annual data as of 2017.

## ...but Italy's annual fiscal plans are particularly concerning...



Source: IMF. Annual data as of 2017. 2019 blue bar reflects September 28, 2018 announcement.

## ...which alongside its weak growth outlook results in...

**Primary balance-to-GDP ratio required to keep public debt-to-GDP at its 2017 level (slightly above 130% of GDP) under various assumed combinations of nominal GDP growth and interest rates**

**Example:** A 1.3% primary surplus-to-GDP ratio is required to stabilise public debt at its current 130% level when nominal GDP growth is 2% and the nominal interest rate is 3%.

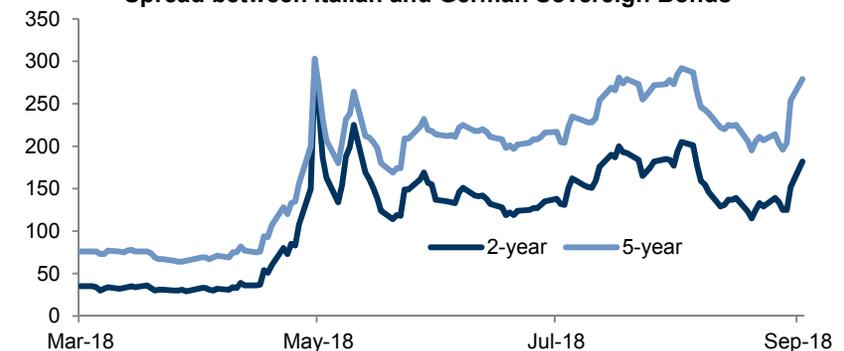
Italy's primary deficit-to-GDP ratio for 2019 is -2.4%, nominal GDP growth target is 3.1% and 10-year borrowing rates are in excess of 3%. High frequency activity indicators suggest growth will be weaker than projected.

Nominal growth	Nominal interest rate							
	0%	0.75%	1.50%	2.25%	3%	3.75%	4.50%	5.25%
-1%	1.3	2.3	3.3	4.3	5.3	6.3	7.3	8.3
0%	0	1	2	3	3.9	4.9	5.9	6.9
1%	-1.3	-0.3	0.7	1.6	2.6	3.6	4.6	5.5
2%	-2.6	-1.6	-0.6	0.3	1.3	2.3	3.2	4.2
3%	-3.8	-2.9	-1.9	-1	0	1	1.9	2.9
4%	-5.1	-4.1	-3.2	-2.2	-1.3	-0.3	0.6	1.6

Source: Goldman Sachs Global Investment Research, Haver Analytics

## ...higher rates, creating a negative feedback loop for growth

**Spread between Italian and German Sovereign Bonds**



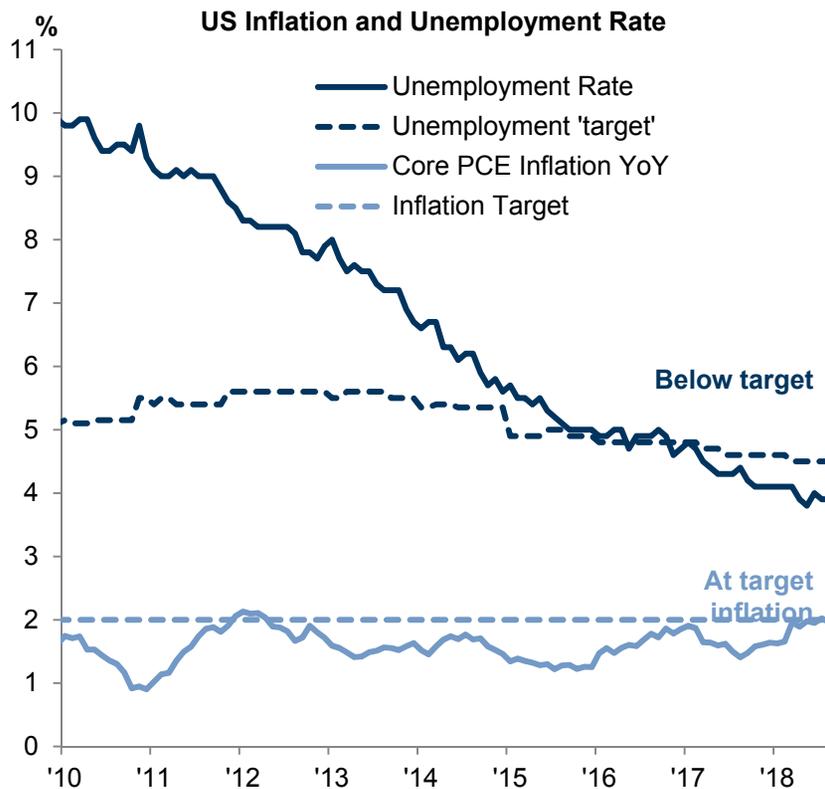
Source: Macrobond, as of October 1, 2018.

# Investment Views: Bearish front-end US rates



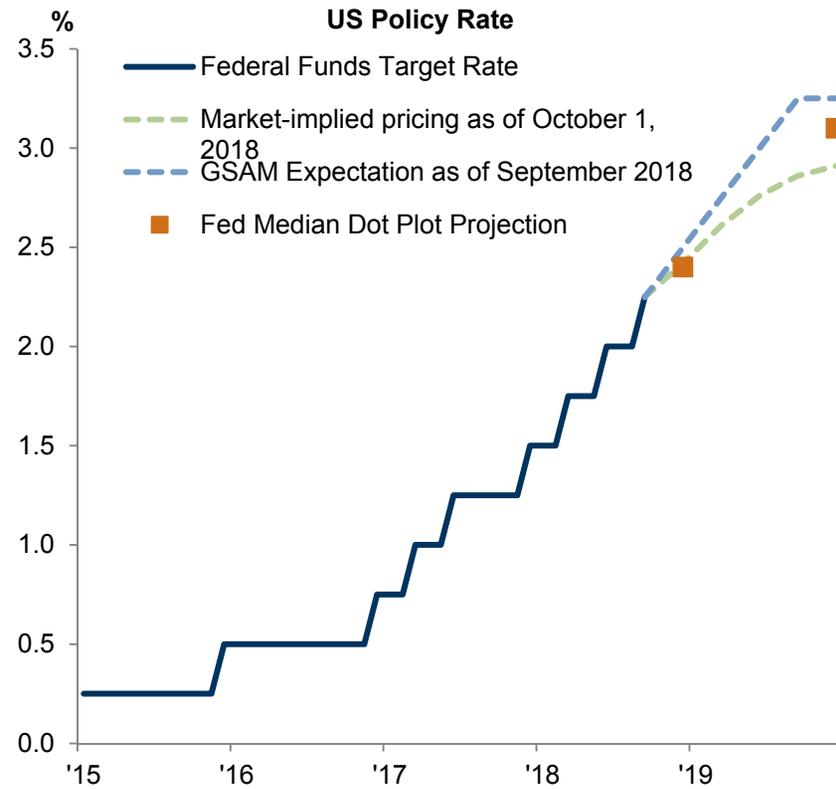
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## Fed has more-or-less achieved its dual mandate



Source: Macrobond. As of August 2018. Unemployment 'target' reflects the Fed's estimate of long-run structural unemployment.

## Near-term Fed policy looks under-priced



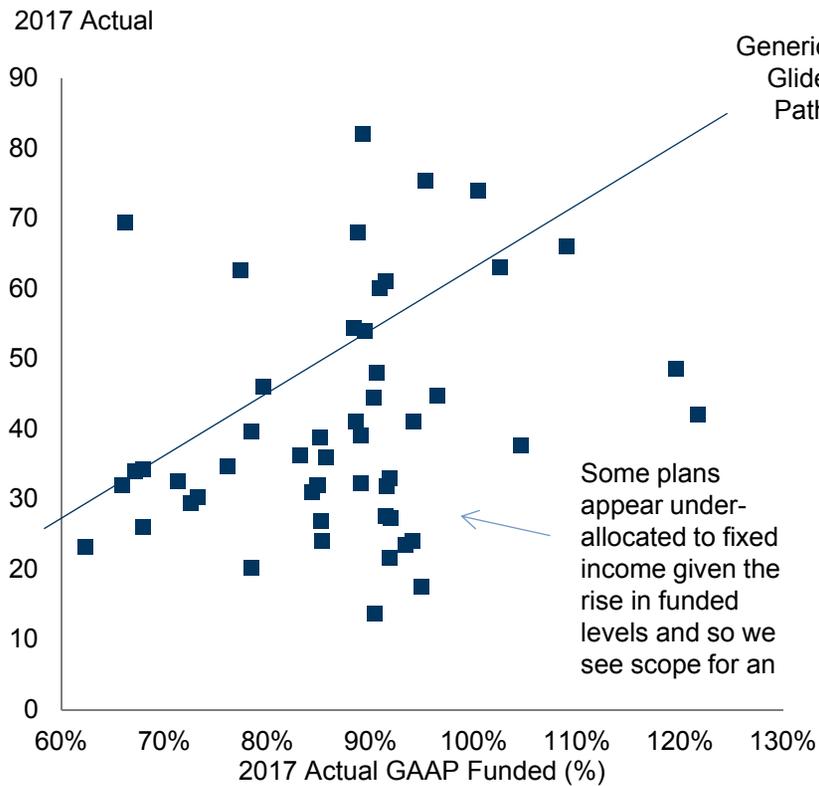
Source: Macrobond, GSAM, Bloomberg.

# Investment Views: Bullish long-end US rates



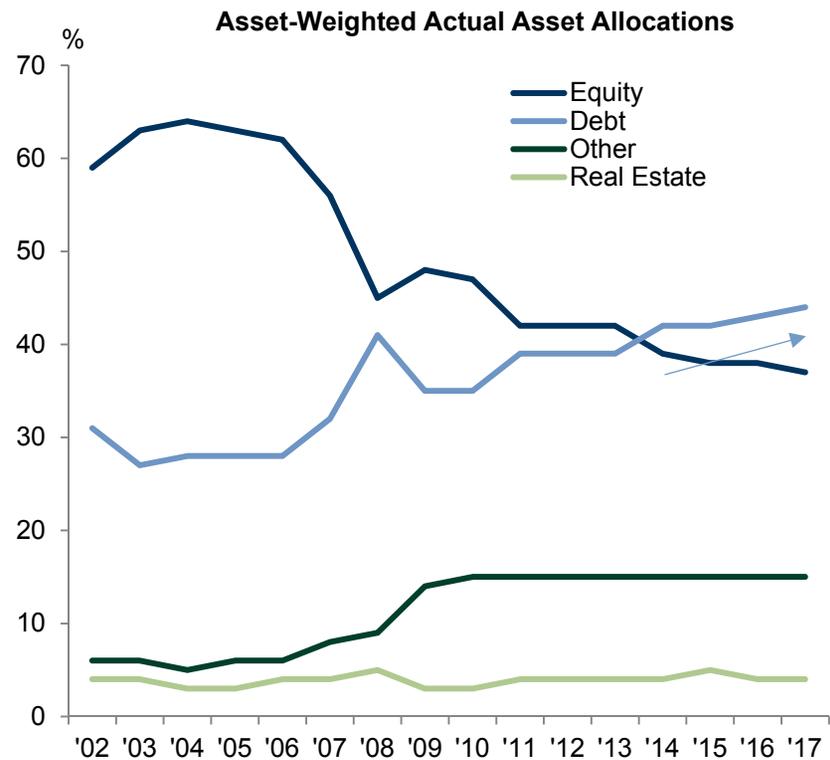
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## Improved funding ratios are positively correlated...



Source: GSAM 2017 Pension Review, March 2018. Past correlations are not indicative of future correlations, which may vary.

## ...with an increased allocation to fixed income



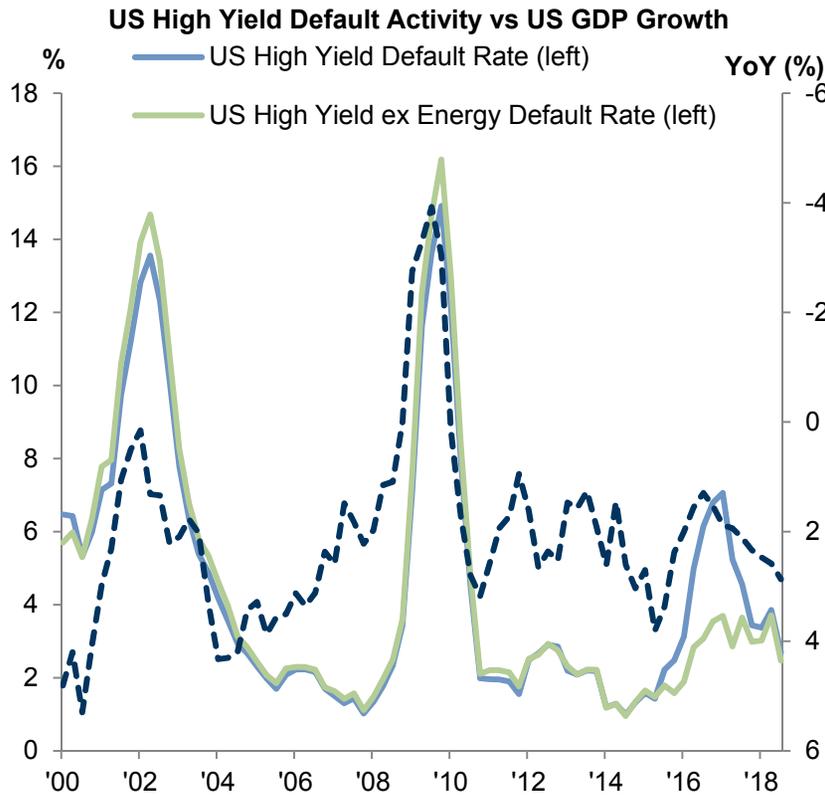
Source: GSAM 2017 Pension Review, March 2018.

# Investment Views: Near-term constructive on US corporate



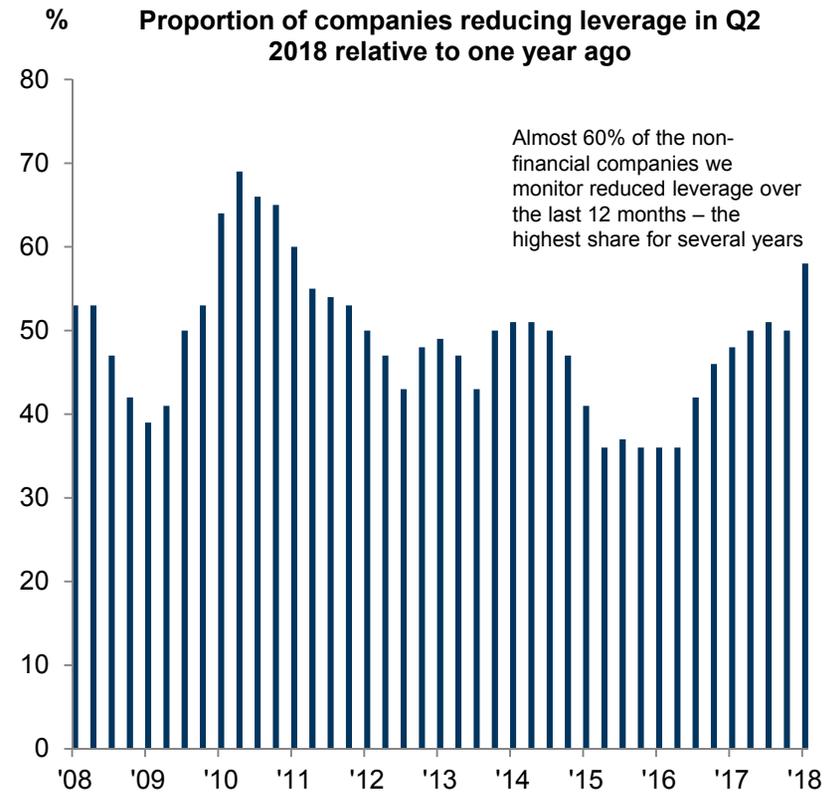
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## High growth, low default backdrop



Source: BofA Merrill Lynch Global Research, as of Aug. 31, 2018. Default rate is based on ICE BofAML indices and calculated on an issuer level on an LTM basis. US GDP data as of Q2 2018.

## Encouraging signs of leverage reduction

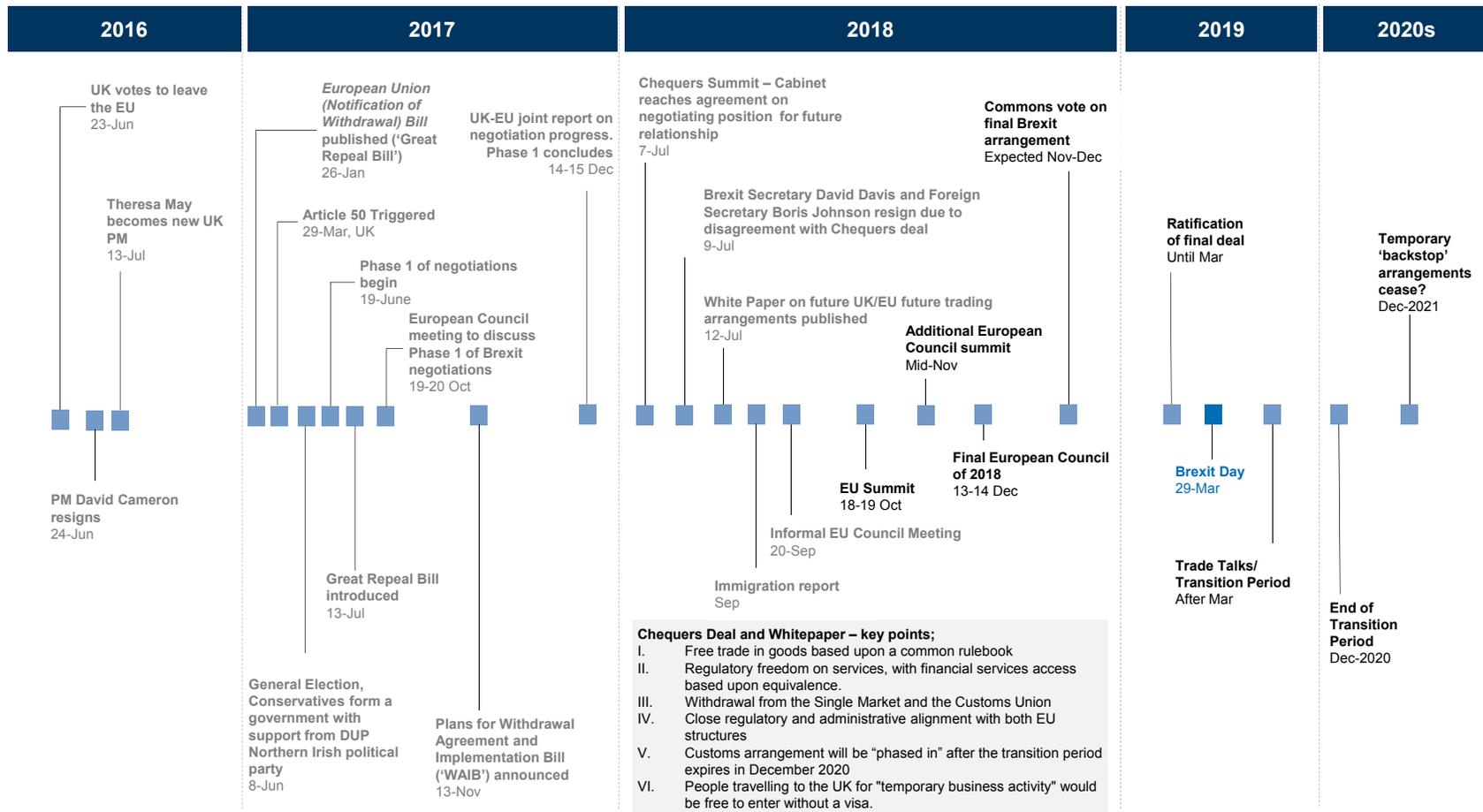


Source: GSAM, Bloomberg, as of Q2 2018

# Brexit: Timeline of Key Events



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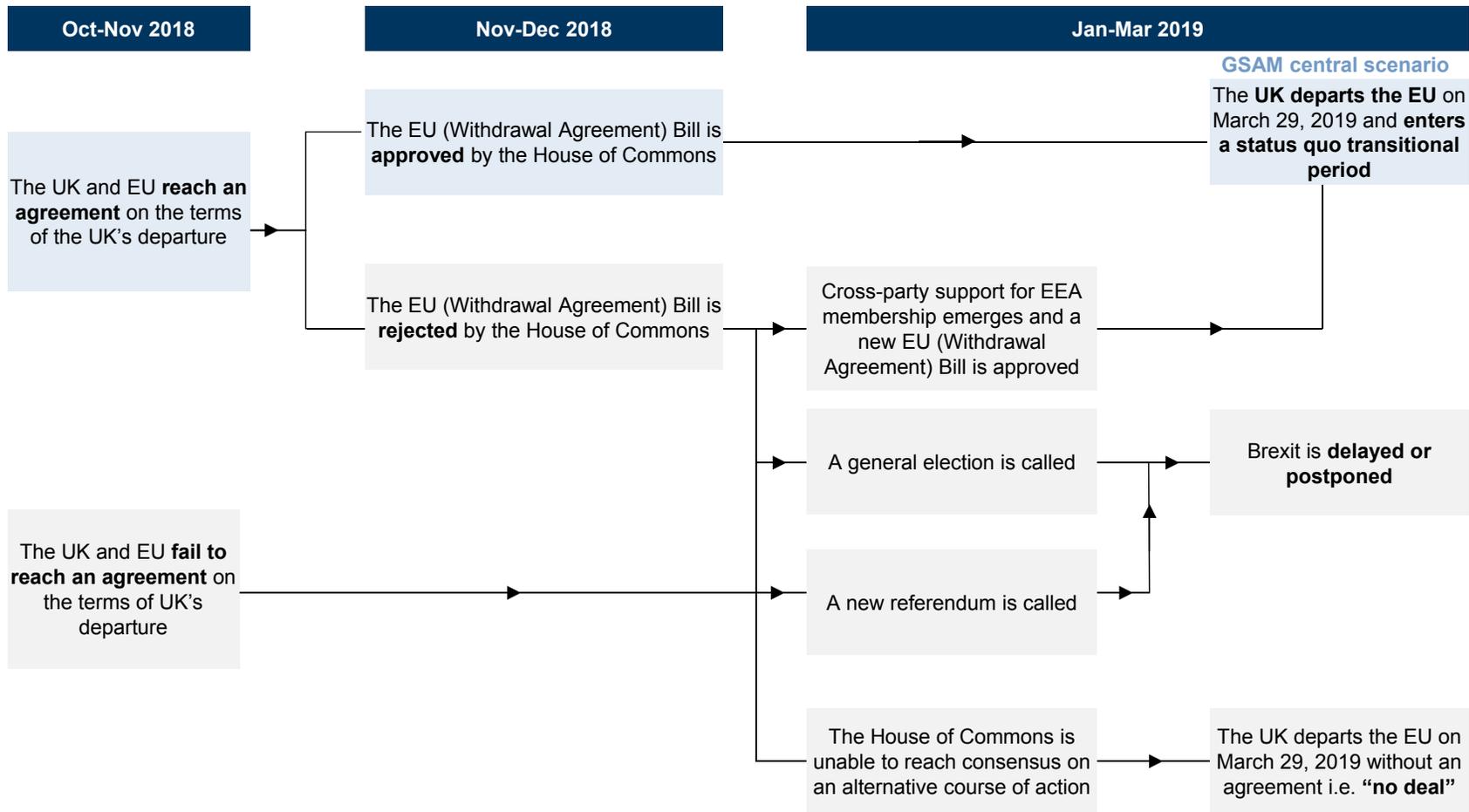


Source: GSAM, UK Parliament Briefings, Goldman Sachs Global Investment Research. As of October 1, 2018.

# Brexit: Scenario analysis (eventual outcome remains uncertain)



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Source: GSAM. As of October 1, 2018.

# Brexit: Central Brexit Scenario and Economic Framework Options



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## GSAM Central Scenario - Overview

- i. **March 2019:** UK departs the EU and enters a status-quo transitional period
- ii. **March 2019-December 2020:** Negotiations over the detailed terms of the UK's future economic relationship with the EU continue throughout the transition period

Source: GSAM. As of October 1, 2018.

## Existing and Potential Economic Frameworks Options for a Post-Brexit UK

	Customs Union	Single Market for Goods	Single Market for Services	Free movement of labour	Contribution to EU Budget	Common Agricultural Policy	Adherence to EU product rules and regulations	Involvement in formulating EU product rules and regulations	Tariff Barriers	Non-Tariff Barriers
<b>EU Membership</b>	Yes	Yes	Yes	Yes	Yes	Yes	Complete	Yes	No	No
<b>European Economic Area (EEA) <sup>1</sup></b>	No	Yes	Yes	Yes	Yes	No	Complete	Minor	No	Some
<b>Switzerland</b>	No	No	No	Yes	Yes (minimal)	No	Complete	No	Some	Some
<b>Comprehensive Economic and Trade Agreement (CETA) "Plus" <sup>2</sup></b>	No	No	Partial	No	No	No	Light	No	Limited <sup>3</sup>	Some
<b>Chequers / White Paper</b>	No	No	No	No	No	No	Strong	No	No	No
<b>CETA</b>	No	No	Partial	No	No	No	Light	No	Limited <sup>3</sup>	Yes
<b>Turkey</b>	Partial	No	No	No	No	No	No	No	No	Yes
<b>World Trade Organisation (WTO)</b>	No	No	No	No	No	No	No	No	Yes	Yes

### Macroeconomic Outlook

**Customs Union** Common system of tariffs and import quotas applied to non-members i.e. a common external tariff (CET).

**Single Market** Free movement of goods, services, capital and labour.

At present, these proposals have not been agreed by the EU.

<sup>1</sup> Norway, Iceland and Lichtenstein.

<sup>2</sup> CETA is a free-trade trade agreement between the EU and Canada.

<sup>3</sup> Mainly for agriculture/food

Source: GSAM. As of October 1, 2018.

# Brexit: Macro forecasts



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## In event of Brexit “central scenario”

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### GDP Growth

**2018:** 1.3%

**2019:** 1.8%. A continued decline in unemployment alongside wage growth should help underpin household consumption which we expect to be the key driver of growth over the next year.

### Inflation

**2018:** 2.5%

**2019:** 2.2%. Upward inflation impulse from post-referendum GBP weakness is fading – this will temper core good price inflation, while core services inflation may pick up modestly on strength in domestic consumption.

Source: GSAM. As of October 1, 2018.

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## In event of a “no deal” outcome

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### GDP Growth

**2018:** 1.3%

**2019:** We see scope for growth to be around 2% lower in 2019, with the UK growth contracting for two consecutive quarters i.e. the UK economy entering recession.

### Inflation

**2018:** 2.5%

**2019:** Headline inflation could be 1-2% higher depending on the degree of GBP depreciation, upward price pressure from the imposition of tariffs (assuming the UK reverts to WTO) and the counteracting downside inflation impact from reduced domestic demand (which would largely weigh on domestic services and rent prices).

Source: GSAM. As of October 1, 2018.

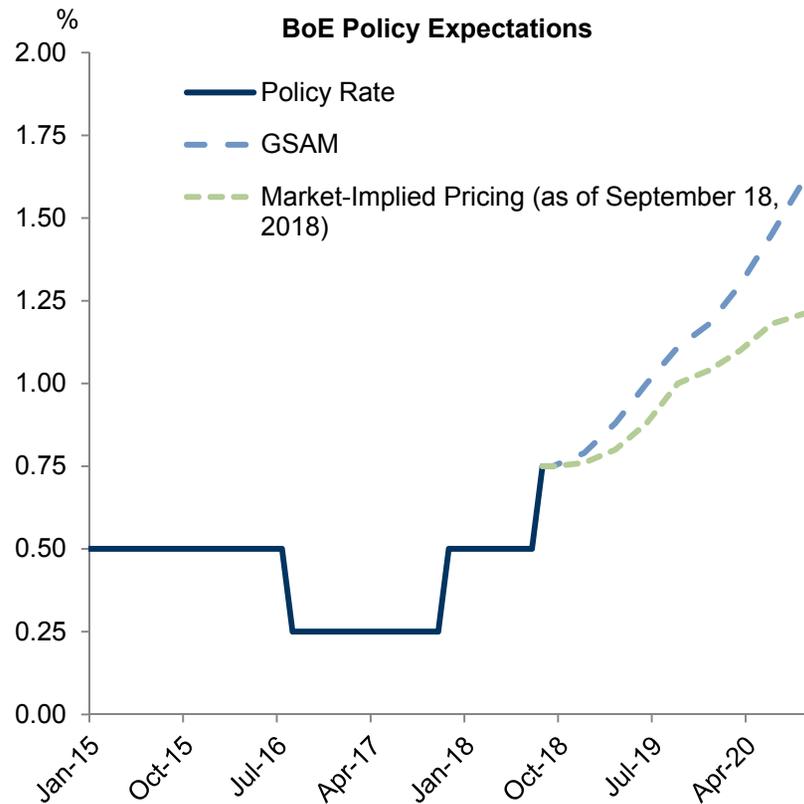
The economic and market forecasts presented herein are for informational purposes as of the date of this presentation. There can be no assurance that the forecasts will be achieved. Please see additional disclosures at the end of this presentation.

# Brexit: BoE Outlook



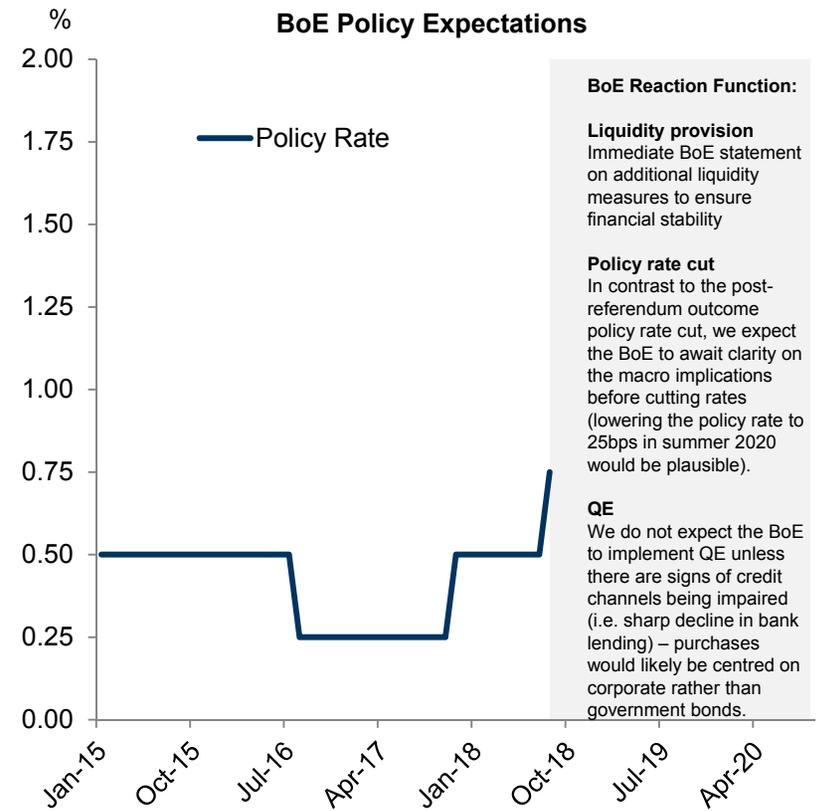
**Asset Management**

## In event of Brexit “central scenario”



Source: GSAM, Macrobond, Bloomberg. As of September 19, 2018.

## In event of a “no deal” outcome



Source: Macrobond, GSAM. As of September 19, 2018.

The economic and market forecasts presented herein are for informational purposes as of the date of this presentation. There can be no assurance that the forecasts will be achieved. Please see additional disclosures at the end of this presentation.

# Brexit: UK Fixed Income Outlook



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## In event of Brexit “central scenario”

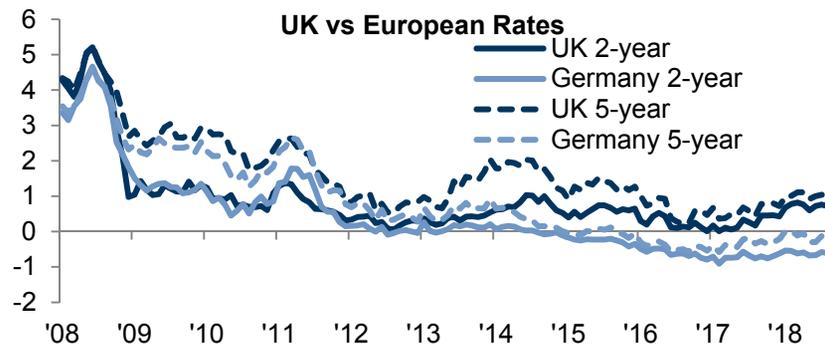
### Rates

Based on our central scenario expectation, and in turn our BoE outlook, we think front-end UK rates appear expensive at current levels. We would expect front end UK rates to underperform relative to core European rates if the BoE proceeds with its gradual, albeit, limited hiking path.

### GBP

Our fair value estimate for GBP vs USD is around 1.36-1.37.

### We would expect front-end UK rates to underperform



Source: Macrobond. As of August 2018.

## In event of a “no deal” outcome

### Rates

UK gilt curve would likely steepen; lower front-end yields on monetary easing with limited move at the long-end due to structural allocations from investors with a low propensity to respond to near-term political uncertainties.

### GBP

We would expect the currency to depreciate around 5-10% versus the US dollar to around 1.20.

### We would expect the UK yield curve to steepen



Source: Macrobond. As of August 2018.

Source: GSAM views as of October 1, 2018. The economic and market forecasts presented herein are for informational purposes as of the date of this presentation. There can be no assurance that the forecasts will be achieved. Please see additional disclosures at the end of this presentation.



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## Appendix

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# Global Fixed Income and Liquidity Solutions



**Asset Management**

CIO & Co-Head: Jonathan Beinner Co- Head: Andrew Wilson <sup>1</sup>							
Deputy Co-CIO: Sam Finkelstein & Ashish Shah <sup>2</sup>							
<b>FISG</b> 11 Investors  Jonathan Beinner Andrew Wilson Jonathan Bayliss Simon Dangoor Sam Finkelstein Chris Hogan Iain Lindsay Ashish Shah Michael Swell Mark Van Wyk Whitney Watson  24+ yrs avg experience*  Oversees portfolio strategy, key risk positions, investment process, medium to long-term themes and outlook	<b>Top-Down Strategy Teams</b>					<b>Portfolio Managers</b>	
	<b>Macro Rates (Jonathan Bayliss)</b>			<b>Currency / Commodities (Sam Finkelstein)</b>		<b>Cross-Sector</b>	<b>Multi/Single Sector</b>
	<b>Duration</b>  Jonathan Bayliss +4 professionals 18+ yrs avg experience*  <i>Anticipates direction of markets and changing shape of yield curve using fundamental, quantitative and technical analysis</i>	<b>Country</b>  Simon Dangoor +4 professionals 14+ yrs avg experience*  <i>Develops individual country views using a "balance sheet" research approach, using quantitative tools as an overlay to the process</i>	<b>Cross-Macro</b>  Gilberto Marcheggiano +6 professionals 20+ yrs avg experience*  <i>Invests across asset classes to take advantage of market inefficiencies arising from investor segmentation between assets &amp; to get efficient exposure to specific macro themes via a basket of assets</i>	<b>Currency</b>  Sam Finkelstein +7 professionals 15+ yrs avg experience*  <i>Employs a flexible, economics-based process to determine the relative attractiveness of currencies</i>	<b>Commodities</b>  Michael Johnson +1 professionals 15+ yrs avg experience*  <i>Alpha strategies: timing, curve shape, relative value, and volatility trades Beta strategies: seek exposure to commodities index and manage roll on futures or enhanced swaps</i>	<b>Jonathan Beinner Ashish Shah<sup>3</sup> +5 professionals 22+ yrs avg experience*</b>  <i>Employs top-down fundamental analysis in allocating capital to bottom-up strategies</i>	Michael Swell Iain Lindsay Ronald Arons Hugh Briscoe Jeremy Cave Sabriyah Denham Russell Gao Rachel Golder Michael Goosay Matthew Kaiser Michael Kashani Nini Lakew Alex Lawson  Matthew Maciaszek Philip Moffitt Jonathon Orr Owi Ruivivar Jasper Sagoo Diana Sands Paul Seary Jason Singer Ben Trombley Jonathan Tung Ayumu Urata Weiliang Zhang
<b>Global Portfolio Construction &amp; Risk</b>  Whitney Watson +7 professionals 6+ yrs avg experience*  <i>Monitors portfolio construction and provide risk oversight</i>	<b>Bottom-Up Strategy Teams</b>					<b>Liquidity Solutions</b>	
	<b>Securitized</b>  Chris Creed / Chris Hogan +8 professionals 15+ yrs avg experience*  <i>Agency mortgage selection and analysis Securitized credit selection and analysis</i>	<b>Government / Swaps</b>  Mark Van Wyk +12 professionals 12+ yrs avg experience*  <i>Duration &amp; curve Relative Value Issuer /Issue Selection Interest rate hedging</i>	<b>Municipals</b>  Ben Barber +16 professionals 16+ yrs avg experience*  <i>Taxable &amp; tax-exempt Tax adjusted return and income Rates and curve strategies Municipal credit analysis</i>	<b>EMD</b>  Sam Finkelstein +24 professionals 13+ yrs avg experience*  <i>External and local sovereign, quasi-sovereign, corporate debt and EM currencies Fundamental research of country balance sheets Long-term orientation</i>	<b>Liquidity Solutions</b>  Dave Fishman +15 professionals 13+ yrs avg experience*  <i>Provide investment solutions for all liquidity tiers Incorporate liquidity issues with strategic view to determine optimum curve exposure</i>	<b>Dave Fishman +5 professionals 19+ yrs avg experience*</b>  <i>Portfolio construction and customized investment solutions</i>	
	<b>Product Management</b>  Alicia Keenan +45 professionals  <i>Provides product support across all strategies</i>					<b>Insurance</b>  Matthew Armas +16 professionals 14+ yrs avg experience*  <i>Portfolio construction and customized investment solutions for insurance clients</i>	
<b>Quantitative Research and Strategists</b>  Ersen Bilgin Fred van der Wyck +22 professionals  <i>Build proprietary research and analysis platforms to support investment teams</i>	<b>Global Corporate Credit Team (Ashish Shah)</b>					<b>Stable Value</b>	
	<b>Investment Grade</b>			<b>High Yield &amp; Bank Loan</b>		<b>David Westbrook +4 professionals 18+ yrs avg experience*</b>  <i>Customized capital preservation solutions for retirement plans and other investors</i>	
	<b>PM / Trading</b> Ben Johnson +11 professionals 12+ yrs avg experience*	<b>Research</b> Stephen Waxman +16 professionals 14+ yrs avg experience*	<b>PM / Trading</b> Michael Goldstein / Rachel Golder +13 professionals 18+ yrs avg experience*	<b>Research</b> Rob Magnuson +18 professionals 15+ yrs avg experience*			

Source: GSAM. As of October 2, 2018. \*Average years of experience includes investment professionals, VP and above.  
<sup>1</sup>Andrew Wilson will become the head of the Global Fixed Income & Liquidity Solutions organization effective January 2019  
<sup>2</sup>Sam Finkelstein and Ashish Shah will become co-CIOs for the Global Fixed Income business effective January 2019  
<sup>3</sup> Ashish Shah will become the head of the Cross-Sector Team effective January 2019

# Additional notes



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## **Index Benchmarks**

Indices are unmanaged. The figures for the index reflect the reinvestment of all income or dividends, as applicable, but do not reflect the deduction of any fees or expenses which would reduce returns. Investors cannot invest directly in indices.

The indices referenced herein have been selected because they are well known, easily recognized by investors, and reflect those indices that the Investment Manager believes, in part based on industry practice, provide a suitable benchmark against which to evaluate the investment or broader market described herein. The exclusion of "failed" or closed hedge funds may mean that each index overstates the performance of hedge funds generally.

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# Additional notes



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The portfolio risk management process includes an effort to monitor and manage risk, but does not imply low risk.

Portfolio Holdings may not be representative of current or future investments. The securities discussed may not represent all of the portfolio's holdings and may represent only a small percentage of the strategy's portfolio holdings. Future portfolio holdings may not be profitable.

High-yield, lower-rated securities involve greater price volatility and present greater credit risks than higher-rated fixed income securities.

Emerging markets securities may be less liquid and more volatile and are subject to a number of additional risks, including but not limited to currency fluctuations and political instability.

The currency market affords investors a substantial degree of leverage. This leverage presents the potential for substantial profits but also entails a high degree of risk including the risk that losses may be similarly substantial. Such transactions are considered suitable only for investors who are experienced in transactions of that kind. Currency fluctuations will also affect the value of an investment.

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# Goldman Sachs Business Principles



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1. Our clients' interests always come first. Our experience shows that if we serve our clients well, our own success will follow
2. Our assets are our people, capital and reputation. If any of these is ever diminished, the last is the most difficult to restore. We are dedicated to complying fully with the letter and spirit of the laws, rules and ethical principles that govern us. Our continued success depends upon unswerving adherence to this standard
3. Our goal is to provide superior returns to our shareholders. Profitability is critical to achieving superior returns, building our capital, and attracting and keeping our best people. Significant employee stock ownership aligns the interests of our employees and our shareholders
4. We take great pride in the professional quality of our work. We have an uncompromising determination to achieve excellence in everything we undertake. Though we may be involved in a wide variety and heavy volume of activity, we would, if it came to a choice, rather be best than biggest
5. We stress creativity and imagination in everything we do. While recognising that the old way may still be the best way, we constantly strive to find a better solution to a client's problems. We pride ourselves on having pioneered many of the practices and techniques that have become standard in the industry
6. We make an unusual effort to identify and recruit the very best person for every job. Although our activities are measured in billions of dollars, we select our people one by one. In a service business, we know that without the best people, we cannot be the best firm
7. We offer our people the opportunity to move ahead more rapidly than is possible at most other places. Advancement depends on merit and we have yet to find the limits to the responsibility our best people are able to assume. For us to be successful, our men and women must reflect the diversity of the communities and cultures in which we operate. That means we must attract, retain and motivate people from many backgrounds and perspectives. Being diverse is not optional; it is what we must be
8. We stress teamwork in everything we do. While individual creativity is always encouraged, we have found that team effort often produces the best results. We have no room for those who put their personal interests ahead of the interests of the Firm and its clients
9. The dedication of our people to the Firm and the intense effort they give their jobs are greater than one finds in most other organisations. We think that this is an important part of our success
10. We consider our size an asset that we try hard to preserve. We want to be big enough to undertake the largest project that any of our clients could contemplate, yet small enough to maintain the loyalty, the intimacy and the esprit de corps that we all treasure and that contribute greatly to our success
11. We constantly strive to anticipate the rapidly changing needs of our clients and to develop new services to meet those needs. We know that the world of finance will not stand still and that complacency can lead to extinction
12. We regularly receive confidential information as part of our normal client relationships. To breach a confidence or to use confidential information improperly or carelessly would be unthinkable
13. Our business is highly competitive, and we aggressively seek to expand our client relationships. However, we must always be fair competitors and must never denigrate other firms
14. Integrity and honesty are at the heart of our business. We expect our people to maintain high ethical standards in everything they do, both in their work for the firm and in their personal lives