

Risk factors

DIDIER BOROWSKI, Head of Macroeconomic Research

PHILIPPE ITHURBIDE, Global Head of Research

The table below presents risk factors with probabilities assigned. It also develops the most credible market impacts.

Risk # 1	75% probability	The post-Brexit environment permanently weakens the UK
<p>Analysis According to estimates, the UK “could lose” between 2.5% and 9.5% of its GDP in the medium term (depending on the nature of the Brexit). Volume and costs of trade would be affected, especially in the financial services, chemicals and automotive sectors, which are highly integrated sectors in the European Union. The risk for the UK lies in its future ability to trade freely in the single market (the services market, to be more precise), to achieve the desired independence without the EU’s constraints. This is the challenge of the negotiations on trade which have hardly started. There are many issues of tension, not just between the UK and countries in the EU, but within the British government itself. The risk of political instability (fall of government, new elections) in 2018 should not be underestimated.</p> <p>Market impact Even though the likelihood of a hard Brexit has dropped significantly, and although some pressure has been relieved with the proposed transition period (until the end of 2020), negotiations on trade this year are expected to be tense. In the event that the outcome is ultimately unfavourable for the UK, we will see additional weakening of the pound sterling and trend- GDP growth of the British economy, two factors that could prolong the monetary status quo.</p>		
Risk # 2	75% probability	Greater financial instability
<p>Analysis Central banks have made the return of financial stability possible in recent years through lower rates, short and long; maintaining interest rates at low levels across the board; low volatility, tighter credit spreads and the virtual disappearance of sovereign risks in some cases. However, central banks are now determined to recalibrate their policies, despite the recent rebound in volatility. The macroeconomic response to a potential downturn in activity would ultimately come from fiscal and tax policies, and traditionally public spending has far less stabilising power for financial markets than interest rate cuts.</p> <p>Market impact Greater financial instability would result in a more pronounced rise in volatility across all financial markets and an increase in credit spreads.</p>		
Risk # 3	70% probability	Political and geopolitical risks maintained
<p>Analysis Financial markets are now operating against a complex geopolitical backdrop: Syria, Islamic State, Turkey, migrant flows, terrorist attacks, Sunnis vs. Shiites, Arabia vs. Iran, all of which have strained and weakened diplomatic relations between countries. Do not expect a quick resolution of ongoing problems and conflicts. In order to take into account political and geopolitical risks into portfolio constructions on a permanent basis, it is necessary to systematically consider macro-hedging strategies.</p> <p>Market impact There is no doubt that there will be regular spikes in tension and volatility. The current geopolitical risks are well identified and specific, but there are many and, by their nature, materialize as often unpredictably. The magnitude of other political risks (including the consequences of the new US diplomacy) is more difficult to assess at this stage. Is this all likely to affect growth prospects and the direction of financial markets? No one really knows it but it is very likely that this is the case, at least occasionally.</p>		
Risk # 4	20% probability	A long-term and significant increase in European long rates
<p>Analysis The increase in long-term rates can come from at least six sources: (i) a significant upswing in (nominal, real or potential) growth prospects, (ii) more aggressive tightening of interest rate policies, (iii) the “true” end of QEs (the end of reinvesting maturing papers in the US, an even more drastic reduction in the ECB’s asset purchasing programme), (iv) a resurgence of inflation or inflation expectations, (v) a massive reversal of fiscal and tax policies, or (vi) a resurgence of specific political risks. All these factors (reality, announced measures, or fears) have gained momentum in the United States, but it seems premature and excessive to expect a steady and substantial increase in bond yields. This conclusion holds even more in the case of the Eurozone. But with growth that is now more robust and more sustainable, and low inflation expectations, debates over the end of negative rates and the ECB’s QE programme, and comments about the need for fiscal and tax measures that are more favourable to growth, it is a safe bet that the risks of a moderate rise in European rates are higher now.</p>		

Market impact | A sharp rise in long rates would be bad news in the United States, where the sensitivity to long-term rates has increased with corporate releveraging: this would weaken growth and in itself would sow the seeds for a future decline in long rates. It should also be noted that a sharp rise in long-term rates would be a drag on any hint of Fed interest rate hikes. Another reason not to believe in a long-lasting and wide rise in US long-term rates ... and European. It should also be noted that a sharp rise in long-term interest rates would slow the monetary normalisation process. This is another reason for not believing in a sustained and ample increase in US – and European – long rates.

Risk # 5

20%
probability

Pro-cyclical fiscal policy pushes the Fed to raise its rates more quickly than expected

Analysis | The expansionist budgetary policy (tax cuts and increase in public spending) will boost GDP growth in 2018. With GDP growth well above 2% inflation that is likely to exceed 2% on average this year and an economy that is close to full employment (with a positive output gap), the real fed funds rate should be much higher than it is now, in a normal cycle. So, technically, the Fed is “behind the curve”. The Fed must clearly avoid any communication errors. Markets could react poorly if rates surge. The most recent example of a bond crash dates back to February 1994 and was triggered by a 25bp increase in rates (not prepared). However, we note that the short-term positive impact of the budgetary policy should allow the Fed to continue to raise interest rates without increasing the risk of recession and, as such, without damaging the financial markets.

Market impact | If the Fed steps up its rate increases, we will have to bet on a sharp downturn in equities and on contagion into the emerging markets. This situation would be conducive to a widening of spreads between Europe and the US. We expect three rate hikes in 2018. All it would take is for core inflation or wages to pick up more quickly (with still strong growth) to open the door to further rate hikes.

Risk # 6

15%
probability

Global trade war

Analysis | The tax increases announced by Donald Trump - if they are actually implemented - will provoke retaliation from trading partners (EU, Canada, China, Korea, etc.). It is likely that Donald Trump’s threat is primarily a weapon in renegotiating the NAFTA agreements with Mexico and Canada, as well as a message sent to his electoral base in the run-up to the mid-term elections (November). Retaliation of targeted partners could lead to further protectionist measures by the White House and thus provoke a chain reaction. Although the probability that the measures announced are actually implemented is not non-negligible, that of a chain reaction seems rather weak for two reasons: (1) many sectors in the US would be victims of retaliation which would be counterproductive before the mid-term elections (strong opposition already perceptible in the Republican camp); (2) partner countries will be careful not to fall into the trap set and maintain a measured response. That said, we cannot ignore the risk of a generalized clash, especially as the moderate camp at the White House (favourable to free trade) is very weakened by the resignation of Gary Cohn (economic adviser).

Market impact | A chain reaction would cause a slump in global trade while exacerbating local inflationary pressures, putting central banks in a corner. This would cause a general rise in risk aversion (fear of a reversal of the global cycle). Contrary to what Trump asserts, there is never a winner in a confrontation of this type. There are only losers.

Risk # 7

10%
probability

A Chinese “hard landing” / a bursting of the credit bubble / devaluation of the yuan

Analysis | Chinese growth is still solid (and more resilient than many market observers believed on year ago), but the country’s economic model is fragile: the excess of credit is visible, non-financial corporate debt has surged since the GFC. The good news is that it has peaked: the NFC debt to GDP ratio has started to drop in late 2017. We will continue to monitor closely the trend in Chinese private debt that currently benefits from the strength of nominal GDP. In the case of hard landing or the bursting of the credit bubble, the Chinese authorities would be unable to maintain the stability of the Yuan, especially since the Chinese currency is no longer undervalued.

Market impact | A hard landing linked to a burst of the credit bubble would have a very negative impact and its cascading effects would be particularly disastrous: vulnerability of banking systems (in China and elsewhere), vulnerability of the global financial system, vulnerability linked to China’s public and private debt, negative impact on regional and global trade, and thus on commodities and emerging countries, impacts on the currencies of commodity-exporting countries, advanced countries and emerging countries.

MACROECONOMIC CONTEXT

Our convictions and our scenarios

DIDIER BOROWSKI, Head of Macroeconomic Research
PHILIPPE ITHURBIDE, Global Head of Research

This section provides a reminder of our central scenario and alternative scenarios.

Central scenario (70% probability): global growth is stabilising.

- **Global resynchronisation:** Despite the recent financial turmoil, global growth is expected to remain strong in 2018 and 2019. Surveys remain at high levels and their recent deterioration does not signal a reversal of the cycle. The advanced economies (with the notable exception of the UK) will continue to experience above potential growth. The major emerging economies will also continue to grow at a sustained pace. The ongoing rebalancing in China is progressing quietly – such that the slowdown appears to be under control. The recovery in most economies is being driven by domestic demand, and we note a recovery in investment in many regions (US, Europe, Japan, Asia). The synchronous nature of the global recovery makes it more robust.
- **World trade:** world trade recovered strongly in 2017 (+ 5% yoy). It has so far been stimulated by the resynchronization of the global cycle and investment in capital goods. The protectionist measures announced by Donald Trump on steel and aluminium (tariff increases) will lead to retaliatory measures (from EU and China in particular) that are theoretically damaging to trade. However, it should be noted that the products that are targeted account for a small share of world trade and partner retaliation is targeted at a few products. We continue to expect a slight decline in the world trade to global GDP ratio in 2018 (i.e., trade growth slightly below that of global GDP). The probability that protectionist tensions will degenerate into a real global trade war is low (see risk scenario).
- **United States:** growth remains firmly anchored. Surveys still point to GDP growth above potential. The fiscal stimulus voted in December, combined with the bi-partisan plan to increase public spending, will extend the duration of the US cycle. No recession to fear neither in 2018, nor in 2019.
- **Eurozone:** the recovery is widespread, with a pick-up in investment in most countries. Growth is driven primarily by private domestic demand. The Eurozone is at mid- cycle, with the prospect of catching up for peripheral countries. The political risk has weakened, becoming more local. In Germany, the vote of SPD members in favour of the coalition with the CDU-CSU paves the way for a grand coalition favourable to Europe and a strengthened Franco-German couple. In another vein, the reduction in asset purchases by the ECB is likely to be accompanied by a rise in both long-term interest rates in the core countries and the Euro. Hence the slight slowdown in growth expected in 2019. However, thanks to accommodative credit conditions, growth should remain well above its potential in 2018 and 2019, despite the recent drop in business surveys.
- **United Kingdom:** EU countries and the UK have concluded an agreement for a transition period (until the end of 2020). The dissensions on Brexit terms are strong about remaining or not in the Customs Union. In her speech of March 2, Theresa May rejects the Customs Union (recently defended in the UK by Jeremy Corbyn), without really clarifying the British approach. Uncertainty will continue to weigh on the UK economy, but in a more diffuse way. We still expect growth to weaken in 2018-2019.
- **China:** growth still robust. The reduction in overcapacity has reduced the downside risks. The economy's growth drivers are now more diversified. Debt remains essentially domestic and has stabilised. We expect the gradual deceleration of growth to continue and a slow rebalancing (less growth, less debt). The transition looks to be under control.
- **Inflation:** core inflation, which is excessively low at this stage in the cycle (especially in advanced economies), is expected to recover gradually in 2018. That said, the slowdown in inflation over recent years is primarily structural (tied to supply factors), while the cyclical component of inflation has weakened (flattening of the Phillips curve). While the pick-up in core inflation promises to be modest, the likelihood of an “inflation surprise” is nonetheless increasing as surplus capacities disappear around the world (we estimate that the global output gap will close in 2018 for the first time since the great financial crisis). The risk is easier to spot in the US (we expect wages to continue to accelerate), given how close the economy is to full employment and how certain temporary factors (such as the drop in mobile phone service prices in the spring of 2017) have disappeared, which will automatically push inflation upward at the end of Q1 2018 (base effect).
- **Oil prices:** we expect prices to stabilise at a level close to their current level. At US\$ 66 (Brent), the risk still seems to us to be asymmetric (more risk of seeing it drop). Indeed, if prices stay much above the breakeven point for US shale gas (estimated at around \$40 pb), US production will eventually increase and weigh on prices.

- **In 2018, the central banks will continue to whittle down their accommodative monetary policy**, which is excessive in view of the current recovery. The Fed will continue to raise its key interest rates (we anticipate three 25bp hikes in 2018) and reduce its balance sheet at the announced pace (with a gradual non-replacement of papers reaching maturity); meanwhile, the ECB could put an end to its QE programme as soon as Q4 2018. But his recent communication remains particularly accommodating. The end of its asset purchase program is conditional on the recovery of underlying inflation, which remains excessively weak at this stage of the cycle. Moreover, it will start raising its key rates only «well after» the end of the Asset Purchase Programme. This implicitly means that the first increase in its deposit rate would not occur until mid-2019 (at the earliest). Monetary policies will remain generally accommodative because even if a little cyclical inflation materializes, total inflation will remain well below its historical average for the structural reasons mentioned (flattening of the Phillips curve, continued downward pressure on the prices of many goods and services). **The protectionist measures announced by D. Trump weigh on the markets. Nevertheless, we believe that the risks weighing on growth are balanced. The likelihood of a generalized trade war remains low because the measures envisaged by Donald Trump (as well as the retaliatory measures) ultimately target products that weigh little on world trade. In fact, it seems that the retaliation envisaged by the EU has led Donald Trump to postpone the increase in tariffs on steel and aluminum from Europe.**



Downside risk scenario (15% probability): marked economic slowdown due to incorrect economic policy (excessively quick monetary policy normalisation or protectionist measures), a geopolitical crisis or a sudden repricing of risk premiums.

- The risk of increasing protectionist measures (US) rises with the approach of the mid-term elections (Trump seeking to satisfy his electoral base). Retaliation from the rest of the world would be inevitable, provoking an open trade war (US, China, EU).
- The pro-cyclical fiscal policy forces the Fed to accelerate the monetary policy normalisation process.
- International crisis stemming from acute aggravation of current geopolitical tensions (Middle East, Korea).

Consequences:

- All things being equal, a global trade war would be negative for growth and, in the short term, would prove inflationary.
- An abrupt re-evaluation of risks on the fixed income markets, with a global decompression of spreads (govies and credit, on the developed and emerging markets alike). Decline in market liquidity.
- With the resulting financial turbulence, the theme of the end of the cycle resurfaces brutally in the US.
- Central banks cease recalibrating their monetary policies and, in the most extreme case, resort to unconventional tools (expanding their balance sheets).



Upside risk scenario (15% probability): pick-up in global growth in 2018.

Several factors, which are likely to generate higher growth, should be closely monitored:

- Sharp pick-up driven by business investment, global trade, and synchronisation of the overall cycle.
- In a very promising environment, the pro-cyclical US tax policy generates a stronger than expected pick-up in domestic growth in the US. Continued acceleration cycle in the Eurozone, stabilisation in China, confirmation of the trend in Japan, etc.
- Central banks react late, maintaining excessively accommodative monetary conditions, hence a «mini boom».

Consequences:

- A marked pick-up in global growth for the second consecutive year would increase inflation expectations, forcing the central banks to consider normalising their monetary policy much more quickly.
- Rise in real key interest rates (in the US especially).
- Given the resulting financial turbulence, the mini-boom would not last long. There would be a greater risk of a boom/bust (i.e. the bust after the boom).

Macroeconomic picture by area

United States

Risk factors

Economy set to expand above potential after Q1 temporary weakness

- Some temporary weakness but the economic outlook remains solid.
- The Fed hiked again by 25 bp, delivering upbeat message on growth and inflation. The economic projections were revised higher for growth and the inflation path moved marginally higher too from 2019. The dots now imply three hikes this year and next.
- A positive environment continues to be supportive for an expanding domestic demand: ISM surveys show very upbeat sentiment among U.S. businesses, with the manufacturing index reaching the highest level in more than a decade; consumer sentiment continues its upward trend, lifted by the tax-cuts positive effects on personal disposable income.
- Inflation scare recedes as US inflation report shows a more measured pace of growth for Consumer Price Index and aligns with Fed view of gradual convergence to the target.

Labour market keeps absorbing residual slack, as labour force participation rate increases and unemployment rate remains stable. Payrolls post again upside surprise.

- Tightening of labor market generates much stronger inflationary pressures
- Abrupt tightening of financial conditions
- More unilateral protectionist trade measures from the U.S. prompting escalated retaliations from other countries
- Geopolitical risks linked to a more hawkish shift of the U.S. Administration (Iran, North Korea)

Eurozone

The recovery continues with a lot of remaining potential

- The recovery remains strong even though some recent business confidence indicators disappointed mildly. The Eurozone economy is being supported by many factors, including a recovery in capex and consumption, lower political risk than in 2017, and strong growth in the USA and Asia. Core inflation remains subdued but is likely to rise slightly over the next few months.
- The indecisive outcome of the Italian elections does not carry an immediate systemic risk for Europe. In Germany, the government coalition deal should allow new initiatives to strengthen Eurozone institutions.

- Rise in anti-establishment parties
- Overreaction by the euro
- External risks

United Kingdom

Growth being slowed by uncertainty over Brexit

- The economy is slowing. Confidence is being undermined by uncertainty over how Brexit will play out. The increase in inflation due to a weaker pound is likely to be temporary. However, unemployment is still very low, at 4.3%, and wages are showing some signs of accelerating.
- An agreement has been reached with the EU for a post-Brexit transition period, from March 2019 until the end of 2020, and this boosted sterling. However, for the agreement to be implemented, an agreement still must be found on thornier issues, such as the Irish border and the future framework of trade relations between the EU and the UK.

- A hard Brexit
- The current account deficit remains very high

Japan

Historical long-running economic expansion has farther to go

- The current expansion has entered its fifth year. While the pace of growth will decelerate from the exhilarating level in 2017, business investment to cope with the chronic labour shortage and the Tokyo Olympic games in 2020 will continue to drive the economy. Meanwhile, investment for the purpose of capacity expansion will taper off on the appreciation of the yen and subsequent faltering exports. On the consumer front, wage growth is likely to remain lacklustre despite the government's request for a 3% pay raise. Depressed real income will continue to weigh on spending.

- The recent surge of the yen: a further appreciation would weigh on confidence
- Geopolitical risks (tensions with North Korea)

China

- The economy has shown no major worrying signs yet. Exports remain strong; property is holding up; and credit is not yet slowing significantly, although monthly data were volatile due to Chinese New Year distortion.
- There have been more convincing signs that structural reforms are ready to accelerate, with the direction reaffirmed, one of largest and widest institutional restructuring plans announced to improve governance efficiency, and pro-reform people in key positions.
- Regarding measures that Trump proposed to target certain Chinese products and sectors under USTR 301 investigation, China's responses so far have been relatively contained, which should help avoid serious escalation and limit macro impacts.
- Further developments bear watching, while there also looks to be some meaningful probability of some kind of trade deals with or without fewer tariffs.

Risk factors

- **The trade relationship with US, with noises perhaps to last for a while**
- **Policy mistakes in managing structural transition**
- **Geopolitical noises regarding North Korea: positive developments with Kim Jong-un making his first visit to China and agreeing to meet US later**

Asia (ex JP & CH)

India: moderating recovery since February 2018

- Our India Economic Activity Indicator had been showing a strong economic recovery until January 2018. February figures weakened slightly with regard to electricity generation, freight traffic, exports and government revenues. Overall, the economic cycle is expected to accelerate in 2018 vs. 2017. Inflation data have recently surprised on the downside (4.4% in February), due to weakening food prices. We do expect inflation slightly higher in the next months and then reverting towards 4% in H2 2018. Risk on the upside should come from the increase in Minimum Support Prices (budgeted) announced in June.
- We do expect a neutral stance by the RBI over the course of 2018. A tighter stance is coming from more severe decisions in the credit sector following the PNB fraud.
- The political scenario is becoming more challenging for the BJP on the way to national elections, thanks to a unifying opposition at state level.

- **The recovery has begun to moderate since February 2018**
- **February inflation was unexpected low. Expected slightly higher in the next few months and reverting in H 22018**
- **RBI on hold**

Latam

Brazil: subdued inflation leaves room for further easing

- The Brazilian economy keeps expanding at a consistent pace throughout different sectors, driven both domestically and externally. However, as reflected in the capacity utilization ratio (78.1% in January), there is still lots of slack in the economy. Therefore, we do not see any pressure on inflation; in fact, recent CPI prints were still very low (below the lower end of the 3%-6% inflation target range). CBC has cut the Selic rate by a further 25bps in March, showing more dovishness than expected for the near future. Further easing is consistent with the fact that inflation dynamics are more subdued than expected.
- Having given up on passing pension reform, the government is now focusing on bills such as the Eletrobras privatization and federal tax simplification. The risk on these bills is now that a possible resignation by MoF Mireilles, announcing his ticket for the presidential elections, followed by some senior staff, could delay approval.

- **Recovery still on track but lots of slack in the economy**
- **Surprisingly low Inflation gives room for more easing by BCB**
- **Fiscal bills in the pipeline could be delayed by a possible Mireilles resignation**

EMEA (Europe Middle East & Africa)

Russia: we are forecasting growth of 1.7% yoy for 2018-2019

- With our inflation projection at 3% yoy, which is below the CBR's target (4%), we are expecting further key rate cuts. Oil prices remaining above \$50/barrel would help to bolster the recovery.

- **Decreasing oil prices**

South Africa: we are forecasting growth of 2% yoy in 2018

- Growth surprised to the upside in 2017 (1.3% yoy) and short-term indicators are looking solid in early 2018. Inflation is continuing to slow and should allow the SARB to begin easing its monetary policy before long. The ongoing fiscal consolidation and recent political changes should have a positive impact on the economy.

- **Less fiscal consolidation, lack of reforms**

Turkey: we are forecasting a slowdown in growth to 4.3% in 2018

- The base effects associated with the *coup d'État* and the end of Russian sanctions are likely to fade due to the increasing domestic and external imbalances (increased public and current account deficits) and geopolitical tensions, the Turkish lira will remain under pressure and continue to hamper the economy via imported inflation.

- **Lax monetary policy, rising inflation and twin deficits, currency depreciation**

Macro and Market forecasts

Macroeconomic forecasts (28 March 2018)						
Annual averages (%)	Real GDP growth %			Inflation (CPI, yoy, %)		
	2017	2018	2019	2017	2018	2019
US	2.3	2.9	2.5	2.1	2.5	2.2
Japan	1.7	1.2	1.0	0.5	0.9	1.3
Eurozone	2.5	2.3	1.9	1.6	1.6	1.6
Germany	2.5	2.3	2.1	1.7	1.5	1.6
France	2.0	2.0	1.7	1.2	1.4	1.5
Italy	1.5	1.4	1.2	1.2	1.1	1.5
Spain	3.1	2.6	2.5	2.0	1.6	1.7
UK	1.7	1.5	1.6	2.7	2.6	2.4
Brazil	1.0	2.2	2.4	3.5	3.5	4.4
Russia	1.5	1.7	1.7	3.7	3.0	4.1
India	6.3	6.8	6.6	3.3	4.2	4.6
Indonesia	5.1	5.3	5.5	3.8	3.6	4.1
China	6.9	6.6	6.4	1.6	2.3	2.5
Turkey	6.5	4.3	4.0	11.1	9.5	8.5
Developed countries	2.2	2.3	2.1	1.8	2.0	1.9
Emerging countries	4.9	5.0	4.9	3.5	3.6	3.7
World	3.8	3.9	3.8	2.8	2.9	3.0

Source: Amundi Research

Key interest rate outlook					
	27/03/2018	Amundi + 6m.	Consensus Q3 2018	Amundi + 12m.	Consensus Q1 2019
US	1.50	1.75	2.15	2.00	2.55
Eurozone	0.00	0.00	0.00	0.00	0.00
Japan	-0.10	-0.10	-0.10	-0.10	-0.10
UK	0.50	0.75	0.70	0.75	0.85

Long rate outlook					
2Y. Bond yield					
	27/03/2018	Amundi + 6m.	Forward + 6m.	Amundi + 12m.	Forward + 12m.
US	2.31	2.20/2.40	2.50	2.50/2.70	2.64
Germany	-0.61	-0.60/-0.40	-0.46	-0.40/-0.20	-0.33
Japan	-0.15	-0.20/-0.00	-0.14	-0.20/-0.00	-0.12
UK	0.89	0.80/1.0	1.01	0.80/1.0	1.09

10Y. Bond yield					
	27/03/2018	Amundi + 6m.	Forward + 6m.	Amundi + 12m.	Forward + 12m.
US	2.85	2.80/3.0	2.93	2.80/3.0	2.98
Germany	0.52	0.60/0.80	0.65	0.80/1.00	0.76
Japan	0.04	0	0.08	0	0.13
UK	1.44	1.40/1.60	1.58	1.40/1.60	1.65

Currency outlook					
	27/03/2018	Amundi + 6m.	Consensus Q3 2018	Amundi + 12m.	Consensus Q1 2019
EUR/USD	1.24	1.25	1.25	1.28	1.27
USD/JPY	106	105.0	108.0	105.0	110.0
EUR/GBP	0.88	0.92	0.89	0.95	0.89
EUR/CHF	1.17	1.16	1.19	1.18	1.19
EUR/NOK	9.56	9.50	9.55	9.30	9.33
EUR/SEK	10.21	9.70	9.90	9.50	9.63
USD/CAD	1.29	1.25	1.25	1.22	1.24
AUD/USD	0.77	0.77	0.78	0.77	0.80
NZD/USD	0.73	0.70	0.72	0.70	0.74
USD/CNY	6.28	6.30	6.40	6.30	6.40

Recent publications

WORKING PAPERS



The covariance matrix between real assets

Marielle DE JONG — Quantitative Research — Amundi

Analysing the Exposure of Low-volatility Equity Strategies to Interest Rates

Lauren STAGNOL — Quantitative Research — Amundi, Bruno TAILLARDAT Smart Beta & Factor Investing — Amundi

Understanding the Momentum Risk Premium

Paul JUSSELIN, Edmond LEZMI, Hassan MALONGO, Côme MASSELIN, Thierry RONCALLI — Quantitative Research — Amundi, TUNG-LAM DAO — Independent Researcher, Paris

Factor Investing: The Rocky Road from Long-Only to Long-Short

Marie BRIÈRE — Head of Investor Research Center — Amundi, Ariane SZAFARZ — Université Libre de Bruxelles

DISCUSSION PAPERS



Setting objectives for your asset allocation

AMUNDI ASSET ALLOCATION ADVISORY

Aggressive tax optimisation: what is the best ESG approach?

Jean-Baptiste MOREL — ESG Analysis

Shareholder Activism Why Should Investors Care?

Filip BEKJAROVSKI — TSE PhD student Amundi Research, Marie BRIÈRE — Amundi Research

Keep Up The Momentum

Thierry RONCALLI — Quantitative Research — Amundi

Megatrends and disruptions consequences for asset management

Philippe ITHURBIDE — Global Head of Research — Amundi

Real assets: what contribution to asset allocation, especially in times of crisis?

Philippe ITHURBIDE — Global Head of Research — Amundi

THEMATIC PAPERS



The improvement of peripheral bonds' fundamentals has accelerated

Bastien DRUT — Fixed income and FX Strategy

Brexit_how the future trade agreement is going to shape UK financial assets

Didier BOROWSKI; Andrea BRASILI; Tristan PERRIER — Macroeconomic Research; Monica DEFEND — Strategy; Bastien DRUT; Roberta FORTES; Silvia DI SILVIO — Fixed income and FX Strategy; Lorenzo PORTELLI — Multi-asset Strategy; ; Eric MIJOT; Ibra WANE — Equity Strategy

The improvement of peripheral bonds has accelerated

Bastien DRUT — Fixed income and FX Strategy

US credit don't worry about the macro_focus on technicals

Valentine AINOUS — Credit Strategy

Amundi Research Center

Top-down

Asset Allocation

Bottom-up

Corporate Bonds

Fixed Income



Foreign Exchange

Money Markets

Equities

**Find out more about
Amundi research team****research-center.amundi.com**

Monetary Policies

Forecasts

Investment Strategies

Quant

Emerging Markets

Sovereign Bonds

Private Equity

Real Estate **High Yield****Chief editor: BLANQUÉ Pascal****Editor: ITHURBIDE Philippe**

The MSCI information may only be used for your internal use, may not be reproduced or disseminated in any form and may not be used as a basis for or a component of any financial instruments or products or indices. None of the MSCI information is intended to constitute investment advice or a recommendation to make (or refrain from making) any kind of investment decision and may not be relied on as such. Historical data and analysis should not be taken as an indication or guarantee of any future performance analysis, forecast or prediction. The MSCI information is provided on an "as is" basis and the user of this information assumes the entire risk of any use made of this information. MSCI, each of its affiliates and each other person involved in or related to compiling, computing or creating any MSCI information (collectively, the "MSCI Parties") expressly disclaims all warranties (including, without limitation, any warranties of originality, accuracy, completeness, timeliness, non-infringement, merchantability and fitness for a particular purpose) with respect to this information. Without limiting any of the foregoing, in no event shall any MSCI Party have any liability for any direct, indirect, special, incidental, punitive, consequential (including, without limitation, lost profits) or any other damages. (www.msclibarra.com).

In the European Union, this document is only for the attention of "Professional" investors as defined in Directive 2004/39/EC dated 21 April 2004 on markets in financial instruments ("MIFID"), to investment services providers and any other professional of the financial industry, and as the case may be in each local regulations and, as far as the offering in Switzerland is concerned, a "Qualified Investor" within the meaning of the provisions of the Swiss Collective Investment Schemes Act of 23 June 2006 (CISA), the Swiss Collective Investment Schemes Ordinance of 22 November 2006 (CISO) and the FINMA's Circular 08/8 on Public Advertising under the Collective Investment Schemes legislation of 20 November 2008. In no event may this material be distributed in the European Union to non "Professional" investors as defined in the MIFID or in each local regulation, or in Switzerland to investors who do not comply with the definition of "qualified investors" as defined in the applicable legislation and regulation. This document is not intended for citizens or residents of the United States of America or to any "U.S. Person", as this term is defined in SEC Regulation S under the U.S. Securities Act of 1933. This document neither constitutes an offer to buy nor a solicitation to sell a product, and shall not be considered as an unlawful solicitation or an investment advice. Amundi accepts no liability whatsoever, whether direct or indirect, that may arise from the use of information contained in this material. Amundi can in no way be held responsible for any decision or investment made on the basis of information contained in this material. The information contained in this document is disclosed to you on a confidential basis and shall not be copied, reproduced, modified, translated or distributed without the prior written approval of Amundi, to any third person or entity in any country or jurisdiction which would subject Amundi or any of "the Funds", to any registration requirements within these jurisdictions or where it might be considered as unlawful. Accordingly, this material is for distribution solely in jurisdictions where permitted and to persons who may receive it without breaching applicable legal or regulatory requirements. The information contained in this document is deemed accurate as at the date of publication set out on the first page of this document. Data, opinions and estimates may be changed without notice.

You have the right to receive information about the personal information we hold on you. You can obtain a copy of the information we hold on you by sending an email to info@amundi.com.

If you are concerned that any of the information we hold on you is incorrect, please contact us at info@amundi.com.

Document issued by Amundi, a société anonyme with a share capital of €1,086,262,605 - Portfolio manager regulated by the AMF under number GP04000036 - Head office: 90 boulevard Pasteur - 75015 Paris - France - 437 574 452 RCS Paris - www.amundi.com
Photo credit: iStock by Getty Images - baona

Editor**ITHURBIDE Philippe**, Global Head of Research**Deputy-Editors****BOROWSKI Didier**, Head of Macroeconomic Research**DEFEND Monica**, Head of Strategy, Deputy Head of Research**Conception & production****BERGER Pia**, Research, Strategy and Analysis**PONCET Benoit**, Research, Strategy and Analysis