Investment Outlook 2018

Next Generation’s Footsteps
“Do not seek to follow in the footsteps of the men of old; seek what they sought.”

Matsuo Bashō
We at Credit Suisse are committed
to helping strengthen the
banking system, while taking
on the major – but exciting –
technological challenges
that we face in our industry.
From my perspective

Tidjane Thiam
CEO Credit Suisse Group AG

It is my pleasure to present to you the 2018 edition of our Investment Outlook. Every year, this publication highlights some of our bank’s best investment analysis. As always, we at Credit Suisse take a global approach, reflecting the broad interests and concerns that our clients regularly express to us.

Over the past year, we have witnessed a significant increase in global economic activity and, in line with that, a strong performance of risk assets. Core government bonds – the key holdings of many institutional investors – once again delivered meager results. A recovery of returns in this fundamental asset class will take time, but with worries over “secular stagnation” subsiding and central banks taking cautious steps toward policy normalization, the process is now under way.

This strong performance of risk assets comes against the backdrop of significant geopolitical tensions, in particular concerning North Korea, but also at a time of policy uncertainty in the United States. Concerns over Europe have decreased as electoral populism has made less progress than anticipated since growth has been better than expected. In spite of these positive trends, we feel that some of the underlying fragilities of the European Union have not been completely remedied. In coming years, the focus must be on consolidating the relatively limited stability that has been achieved. In particular, the European Monetary, Banking and Capital Markets Union must be further strengthened to ensure that growth is sustained and that crisis risks remain contained. Globally, cooperation must be strengthened in security matters – which include the all-important issues of terrorism and cybersecurity – while protectionist trends are resisted.

We at Credit Suisse are committed to helping strengthen the banking system, while taking on the major – but exciting – technological challenges that we face in our industry. Being at the forefront of digitalization and technological innovation is one of the essential demands of our up-and-coming generation of clients, the so-called Millennials, and is therefore very important to us. To gauge their aspirations and interests and because we always want to listen to the voice of our clients ahead of all other considerations, we have invited a group of Millennial clients to contribute to this publication.

I wish you all a very prosperous and fulfilling year.

Tidjane Thiam
Contents

04 Letter from the CEO
08 Editorial
10 Review 2017
12 Key topics in 2018
56 Calendar 2018
58 Disclaimer
Next Generation on the rise

Michael Strobaek Global Chief Investment Officer
Nannette Hechler-Fayd’herbe Global Head of Investment Strategy & Research

After a year of strong investment returns on risk assets, we enter 2018, a year likely to see sustained economic growth and good, albeit more limited returns. We believe the Next Generation, or Millennials, will emerge even more strongly as a major driving force in key realms of life.

The overarching theme of our last Investment Outlook was the coming to the fore of social and generational conflicts. We highlighted a range of possible political issues and economic policy challenges. By far the biggest risk was the French election, whose outcome could have called into question the future of the European Union and its common currency. Fortunately, the election result instead rekindled positive sentiment toward the union or at least opened a window of opportunity for the new leadership to tackle some of the areas European voters had expressed disappointment with. In combination with a clearly improving business cycle, this triggered significant gains in risk assets (and the EUR). Many investors are likely to remember 2017 as a year of exceptionally good investment returns.

As we look ahead, our sense is that 2018 will be remembered as a year in which the Next Generation – often referred to as Millennials – takes important strides toward becoming the decisive force driving human activity and interaction across many economic, social and political realms. This is why a key focus of our Investment Outlook 2018 is on the Next Generation’s footsteps.

We believe that companies are going to finally deploy more of their ample cash for investments to ensure their success (or at least survival). Where organic growth is difficult, companies are likely to resort to mergers and acquisitions. Of course, this will require funding, and companies can be expected to increase their debt and leverage. Though this will require scrutiny from bondholders, it will likely prove positive for growth. Additional help will come from the economic policy mix of slightly more supportive fiscal policy, coupled with a very cautious “QExit” by central banks.
Overall, we expect a relatively good year for economic growth, which should help growth-sensitive assets do well. Yet, as valuations are quite stretched in many areas, we believe that investment decisions will need to be based on even more precise analysis and a highly disciplined decision-making process. Clients can always rely on the Credit Suisse House View, which we regularly analyze to provide strong guidance for positioning in any market environment. We hope you will find plenty of investment inspiration in the following pages. Our investment professionals are at your disposal, of course, to support you in achieving your investment goals.

“We believe that investment decisions will need to be based on even more precise analysis and a highly disciplined decision-making process.”
The year of the Euro(zone) rebound

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>20 January</td>
<td>Inauguration of US President Donald Trump</td>
</tr>
<tr>
<td>01 March</td>
<td>IPO of Snapchat</td>
</tr>
<tr>
<td>28 February</td>
<td>Best month of the year for S&amp;P 500</td>
</tr>
<tr>
<td>15 March</td>
<td>Fed rate hike</td>
</tr>
<tr>
<td>29 March</td>
<td>UK triggers Article 50</td>
</tr>
<tr>
<td>18 May</td>
<td>Political stress in Brazil</td>
</tr>
<tr>
<td>08 June</td>
<td>UK election surprise</td>
</tr>
<tr>
<td>06 June</td>
<td>Progress on Eurozone bank clean-up</td>
</tr>
<tr>
<td>12 May</td>
<td>Global cyberattack</td>
</tr>
<tr>
<td>23 January</td>
<td>President Trump withdraws from TPP</td>
</tr>
<tr>
<td>23 April</td>
<td>1st round majority for Emmanuel Macron</td>
</tr>
<tr>
<td>20 January</td>
<td>President Trump pulls out of the Trans-Pacific Partnership (TPP) trade deal.</td>
</tr>
<tr>
<td>01 April</td>
<td>Bitcoin in the fast lane</td>
</tr>
<tr>
<td>23 April</td>
<td>Emmanuel Macron wins the majority of votes in the first round of the French election, paving the way for his election victory in the second round in early May.</td>
</tr>
</tbody>
</table>

**Graph:**
- Jan. 2017: 1.05
- Feb. 2017: 1.15
- Mar. 2017: 1.25
- Apr. 2017: 1.35
- May 2017: 1.45
- June 2017: 1.55

**Notes:**
- Donald Trump is inaugurated as the 45th President of the United States of America.
- The going-public of Snap Inc. is the biggest technology initial public offering (IPO) since Alibaba. Snap shares close up 44% on the first trading day.
- Snap shares close up 44% on the first trading day.
- Despite fairly weak growth data, the US Federal Reserve (Fed) raises the Fed funds rate by 0.25% with little forewarning.
- A further rate hike follows in June; a final one is forecast for December.
- Japan accepts Bitcoin as a legal payment method. From 1 April to end-August, the value of 1 Bitcoin surges 344% in USD.
- Spain’s Banco Santander buys the struggling Banco Popular, also of Spain, for EUR 1, rescuing it from the brink of collapse.
27 September
Defensive mega-merger in European railway industry
German Siemens and French rival Alstom agree to merge their rail businesses, forming a European champion to compete with Chinese rival CRRC.

26 October
ECB provides tapering details
The ECB announces details of how it plans to wind down its asset purchases starting in January 2018.

02 November
Next Fed chair
US President Donald Trump nominates Jerome Powell to become the next Chairman of the US Federal Reserve. The nomination suggests monetary policy continuity and limited financial deregulation.

15 December
Debt ceiling and government funding expire in the United States
Congress needs to approve government funding and raise the debt ceiling to keep the government funded. With a proper budget now set, both measures should pass.

28 August
Amazon goes green
Amazon completes the acquisition of Whole Foods Markets and cuts Whole Foods prices by as much as 43% on completion day.

10 July
EUR/CHF breaches 1.10
For the first time since the Swiss National Bank abandoned the minimum exchange rate of EUR/CHF 1.20 in January 2015, EUR/CHF rises above 1.10.

02 August
Diesel disgraced
The German government and carmakers hold the National Diesel Forum to find solutions for the scandal-ridden sector.

03 September
North Korea tensions
Rhetoric and military threats between US President Donald Trump and North Korean leader Kim Jong-un escalate.

24 September
German Chancellor Angela Merkel wins reelection
The result triggers complex negotiations over a new coalition – the right-wing AfD enters parliament.

22 October
Snap elections in Japan
Japanese Prime Minister Shinzo Abe secures a stronger mandate as Japan prepares to respond to growing military threats in the region.

18 October
Chinese Communist Party Congress
The 19th National Congress of China’s Communist Party allows Chinese President Xi Jinping to consolidate his political power.

27 September
Defensive mega-merger in European railway industry
German Siemens and French rival Alstom agree to merge their rail businesses, forming a European champion to compete with Chinese rival CRRC.

16 December
Debt ceiling and government funding expire in the United States
Congress needs to approve government funding and raise the debt ceiling to keep the government funded. With a proper budget now set, both measures should pass.

15 December
Debt ceiling and government funding expire in the United States
Congress needs to approve government funding and raise the debt ceiling to keep the government funded. With a proper budget now set, both measures should pass.

22 October
Snap elections in Japan
Japanese Prime Minister Shinzo Abe secures a stronger mandate as Japan prepares to respond to growing military threats in the region.

18 October
Chinese Communist Party Congress
The 19th National Congress of China’s Communist Party allows Chinese President Xi Jinping to consolidate his political power.

24 September
German Chancellor Angela Merkel wins reelection
The result triggers complex negotiations over a new coalition – the right-wing AfD enters parliament.

03 September
North Korea tensions
Rhetoric and military threats between US President Donald Trump and North Korean leader Kim Jong-un escalate.

02 August
Diesel disgraced
The German government and carmakers hold the National Diesel Forum to find solutions for the scandal-ridden sector.

10 July
EUR/CHF breaches 1.10
For the first time since the Swiss National Bank abandoned the minimum exchange rate of EUR/CHF 1.20 in January 2015, EUR/CHF rises above 1.10.
What matters in 2018

What will be the key market drivers in 2018? We review six, from rising corporate investment to the role of Millennials.

---

**Capex rising**

Corporate capital expenditure on equipment and structures ("capex") slumped in 2009, as companies reined in spending and expansion plans. Capex has been rebuilding only slowly since then. With business confidence and profits high but capacity constraints tightening, we expect capex to accelerate in 2018, particularly in manufacturing, information technology, transport and warehousing, and utilities. Higher investment boosts overall economic growth while limiting inflation pressure due to productivity enhancements. This combination is supportive of risk assets.

Find out more ➔ page 18

---

**QExit**

As the economic expansion continues and capacity usage rises, the sustainability of the major central banks’ extremely easy monetary policies is increasingly being called into question. The US Federal Reserve is already contracting its balance sheet, while the European Central Bank is set to taper its asset purchases in 2018. Tighter money is not always bad for markets as long as it reflects improving growth, but central banks’ movements toward the exit could create significant pockets of volatility in both currencies and stock markets. We expect central banks to proceed with caution, still supporting a favorable trend in financial markets in 2018.

Find out more ➔ page 27

---

**M&A resurgence**

Global merger and acquisition (M&A) activity is expected to rise in 2018, encouraged by the strength of the global economy, historically high corporate cash levels, still low financing costs and a proposed tax break for US corporate profit repatriation. The effort to create regional champions in Europe is an additional driver. Among sectors, health-care is likely to see the strongest M&A activity globally. In the financial sector, increased pressure for consolidation may also drive merger activity, not least in Europe’s fragmented sector.

Find out more ➔ page 44
Global merger and acquisition (M&A) activity is expected to increase in 2018, encouraged by the strength of the global economy.

---

China developments

After a remarkable credit expansion over the past decade, China’s high corporate debt levels are set to remain a lingering concern in 2018. Any downturn in Chinese growth would be a risk to the global economy and markets. An apparent policy bias toward stability and credit restraint in China are encouraging, but not without risks for asset prices, the economy and the Chinese renminbi. A growth scare as we saw in 2016 cannot be ruled out, but our base case calls for a steady adjustment process with currency stability.

Find out more ➤ page 30

---

Investor complacency

When stock markets rise with extraordinary resilience as in recent years, investors tend to start “herding.” Passive investment in stocks tends to rise while perceptions of risks tend to fade, up to the point where there is a correction. Are investors too complacent now? Despite the remarkable uptrend, sentiment surveys show that the consensus remains quite cautious on stocks, with an unusually large majority of opinions in fact neutral. It may be true that the best time to buy stocks is when others are fearful, but that does not mean one should sell as soon as the market becomes relaxed.

Find out more ➤ page 40

---

Millennials’ footprint

Millennials, one of the largest generations in history, are coming of age as consumers, investors and trendsetters. Placing great importance on topics such as sustainability, clean energy and impact investing, Millennials are opening up new opportunities for investors. In 2018, we see renewable energy, including solar, wind and energy storage systems, as offering strong prospects. In contrast, Millennials’ preferences for online shopping can be expected to keep pressure on the traditional retail sector.

Find out more ➤ page 34
Global economy
In short

Capex and fiscal policy as additional growth drivers
Employment and consumption have been the key growth drivers in recent years, while low interest rates fostered a boom in real estate investment in a number of countries. Corporate capital expenditure was fairly subdued, however. With the overall growth outlook firming, business sentiment rising, labor markets tightening but profitability high, we expect corporate capex to become a key growth driver going forward. Tax cuts and some fiscal easing in the USA and Germany, in particular, should also fuel growth. Global trade is likely to accelerate, outweighing protectionist tendencies.

Continued “lowflation” as base case, but some upside risks
Structural forces that favor disinflation, such as the “gig” economy, i.e. a labor market in which workers flexibly offer temporary services, remain in place. In specific sectors such as retail, the internet is increasing price transparency and pressuring margins. Moreover, inflation expectations are generally anchored at low levels. Finally, a number of global industries are still suffering from excess production capacity. Nevertheless, as labor markets tighten in some countries, including the USA, Germany and Japan, stronger wage growth could lead to somewhat faster price rises. An upside surprise in commodity prices is an added risk factor.

Central banks to reduce liquidity
The US Federal Reserve (Fed) embarked on a program of balance sheet reduction in October 2017. The European Central Bank (ECB) and others are set to wind down asset purchases in 2018. In late 2018, the cumulated balance sheets of the major central banks will thus begin to shrink. In the course of 2018, a number of major central banks are also likely to join the Fed in raising interest rates. In emerging markets, the phase of policy easing is nearing its end. Overall, global monetary policy will thus clearly turn less accommodative.
Global economic growth should remain strong in 2018, as both advanced and emerging economies enjoy a synchronized upturn. Corporate capital expenditure should become a more prominent growth driver. While inflation is unlikely to rise much, central banks will reduce liquidity and raise interest rates in response to better growth.

For the first time since the financial crisis, economic growth surprised to the upside almost everywhere in 2017. The greatest growth surprise came from continental Europe, as previous growth laggards joined the region’s upswing. Growth pessimism regarding China also proved unwarranted, as growth rose back above 6.5% over the year. Finally, economic growth in the USA actually accelerated toward year-end, notwithstanding the already extended business cycle. With inflation tending to surprise to the downside, monetary policy generally remained clearly accommodative. The Fed was the only central bank to raise interest rates more than once.

“Strong profitability and still supportive financing conditions should support capital spending in 2018.

while most other advanced economy central banks remained on hold and various emerging markets were able to cut interest rates quite considerably in response to lower inflation. In combination with accelerating economic and earnings growth, easy money provided a powerful backdrop for strong gains in equities and other risk assets.
Increased synchronicity and stronger trade in 2018

Barring a major geopolitical crisis or the occurrence of “tail risks,” we believe that global growth will remain very robust in 2018 and may even accelerate further. Existing growth drivers, especially the positive momentum of employment and wages in combination with added impulses, should more than offset any restraining factors, in particular less accommodative monetary policy, somewhat tighter credit conditions and moderately higher commodity prices. Moreover, 2018 is likely to see an even stronger re-synchronization of the business cycle major expansion across advanced and emerging countries.

This should also be reflected in a further recovery of international trade volumes (see chart). Trade among emerging markets, which expanded strongly in the pre-crisis years but has shown lackluster performance since then, should grow disproportionately again. The recovery of large commodity exporters (which are also significant consumer goods importers) including Brazil, Russia or Middle Eastern oil exporters are likely to contribute to this trend. On top of that, the strengthening of capital expenditure should translate into intensified exports of IT hardware from Asia, in particular. Prominent exporters of machinery such as Japan, Germany and Switzerland as well as large exporters of consumer durables such as Turkey or Mexico also stand to benefit. While “re-shoring” and developments such as 3D printing may imply that the growth trend of global trade, especially in consumer goods, is flattening, the positive cyclical forces are likely to dominate, in our view.

Similarly, while the US administration will likely continue to focus on trade issues, actual protectionist measures are likely to be limited so as not to harm US consumers and businesses; they should not seriously threaten the recovery in global trade.

Increased synchronicity and stronger trade in 2018

Barring a major geopolitical crisis or the occurrence of “tail risks,” we believe that global growth will remain very robust in 2018 and may even accelerate further. Existing growth drivers, especially the positive momentum of employment and wages in combination with added impulses, should more than offset any restraining factors, in particular less accommodative monetary policy, somewhat tighter credit conditions and moderately higher commodity prices. Moreover, 2018 is likely to see an even stronger re-synchronization of the business cycle major expansion across advanced and emerging countries.

This should also be reflected in a further recovery of international trade volumes (see chart). Trade among emerging markets, which expanded strongly in the pre-crisis years but has shown lackluster performance since then, should grow disproportionately again. The recovery of large commodity exporters (which are also significant consumer goods importers) including Brazil, Russia or Middle Eastern oil exporters are likely to contribute to this trend. On top of that, the strengthening of capital expenditure should translate into intensified exports of IT hardware from Asia, in particular. Prominent exporters of machinery such as Japan, Germany and Switzerland as well as large exporters of consumer durables such as Turkey or Mexico also stand to benefit. While “re-shoring” and developments such as 3D printing may imply that the growth trend of global trade, especially in consumer goods, is flattening, the positive cyclical forces are likely to dominate, in our view.

Similarly, while the US administration will likely continue to focus on trade issues, actual protectionist measures are likely to be limited so as not to harm US consumers and businesses; they should not seriously threaten the recovery in global trade.
A more marked capex recovery
Corporate capital expenditure (capex) in advanced economies has been quite sluggish since the financial crisis despite extremely low interest rates. On the one hand, this weakness has been due to unusually large excess capacities in various industries, most prominently the investment-heavy mining industry. On the other hand, the financial crisis as well as a series of economic shocks in subsequent years, especially the Eurozone crisis, increased general uncertainty over the economic outlook and weakened the “animal spirits” of business leaders and entrepreneurs. Finally, the pressure on banks to rebuild their balance sheets limited credit provision, especially to the corporate sector.

By now, most of the factors holding back capex have dissipated, in our view. Indeed, capex growth increased in 2017 already. We expect a further acceleration in 2018, however. First, overall business sentiment has reached very robust levels across almost all countries while profitability is high and excess cash holdings are waiting to be put to work. Moreover, as labor markets continue to tighten and wages, especially of highly skilled workers, continue to rise, the incentives for companies to renew their capital stock will likely intensify. Meanwhile, it seems unlikely to us that financing conditions will tighten fast enough to interrupt the upturn in capex. Still, some structural headwinds to higher (real) capex may remain in place. The fact that many capital goods, IT in particular, have become lighter and cheaper may limit the need for added expenditures. Conversely, rapid technological progress is keeping investment needs high.

Only moderate gains in construction
Overall, we believe that the positive cyclical forces supporting capex will dominate in most advanced economies and the leading emerging markets, which is a key reason for our optimistic growth outlook. Moreover, higher capex should help reverse the surprising and persistent drop in measures of productivity growth across the advanced world. This is likely to lead to higher wages and consumer spending, while dampening upward price pressures.

"We would expect credit growth to strengthen globally, as laggards such as the Eurozone periphery catch up.

Investment in structures was a key driver of the boom prior to the financial crisis and then contributed significantly to the downturn. Looking forward, we expect a positive, albeit moderate, growth contribution from construction activity globally, though with significant country differences. In countries in which the sector has been surging since the crisis (e.g. China, Australia, Canada, Sweden and Switzerland), rising overcapacity should restrain growth, whereas it should remain robust in others, including the USA.
Migration and economic growth
Migrants are attracted by fast-growing countries and contribute to growth by filling jobs across the skill spectrum and adding to the consumer base. The extent to which migration boosts the growth of income per capita is less clear. In “sender” countries, emigration can reduce poverty, but the loss of skilled workers (“brain drain”) can have significantly negative effects on the economy. This may be partly offset by remittances: annual transfers are estimated at USD 441 billion, nearly three times official development assistance.

Migration and demographics
As migrants are typically younger than the local population, migration improves demographics. In some rapidly aging developed countries (e.g., Italy), immigration is currently the only source of population growth. In Switzerland, net migration accounts for 85% of population growth even though there is still a “birth surplus.” However, migration is very unlikely to reverse demographic aging.

Migration, labor markets and public finances
Most controversy surrounds the impact of immigration on (un)employment and wages. Finding clear evidence is difficult as immigration is correlated with overall economic growth and employment. There is some evidence, however, that wages are depressed at least temporarily in sectors where immigrants compete strongly with locals. Where social benefits are (too) generous, unemployment among immigrants tends to be higher and rise faster in downturns than for locals. Details of labor market and integration policies can make a large difference. Overall, immigrants contribute more to public finances through taxes and social security contributions than they receive in benefits and services.
Re-leveraging to intensify
A key factor holding back growth in some advanced and emerging markets in recent years has been weak credit growth. Banks in the Eurozone “periphery,” for instance, were burdened with high non-performing loans that limited their ability to grant credit. Deleveraging pressures were also high in some financially weak emerging markets such as Brazil. Conversely, credit growth has been on a strong upward trajectory in a number of other countries. The most extreme is China, where state-guided credit provision, especially to state-owned enterprises, has surged in recent years. Meanwhile, credit to households has also been growing strongly in other countries, including the USA, the UK, Australia, the Nordics as well as Switzerland, generally to finance real estate purchases. Other forms of consumer credit, such as car and student loans, have also grown strongly, especially in the USA.

Looking ahead, we still expect credit growth to strengthen globally, as laggards such as the Eurozone periphery catch up regarding bank credit growth, while corporate debt grows either to finance higher capex or to fund other corporate transactions, such as equity buybacks or mergers and acquisitions. Further bank consolidation, in particular in Europe, should also support credit growth. The gradual monetary policy tightening that we foresee is unlikely to significantly restrain credit growth. In fact, somewhat higher interest rates might even boost bank credit as they support bank profitability. Meanwhile, credit growth should ease further in some of the markets where growth has been particularly strong, including China and Switzerland, be it due to a natural slowing in real estate markets or efforts by the authorities to limit credit growth.

“ The gradual monetary policy tightening we foresee is unlikely to significantly restrain credit growth. In fact, it might even boost bank credit.
Fiscal policy an added stimulus
Another positive growth impulse in 2018 is likely to be fiscal policy, though it will probably be limited in scope. The Eurozone as a whole is likely to see only a minor positive impulse at best, but Germany is likely to ease fiscal policy quite significantly (see chart). Given its very strong fiscal position, the German government is likely to opt for a combination of limited tax cuts and higher expenditure on infrastructure, education and research and development. In most other Eurozone economies, the weak fiscal position will still not allow for decisive fiscal easing. In the UK, where structural deficits remain high, efforts to limit them will continue, albeit in a less stringent manner than planned some years ago. The outlook for fiscal spending in Japan is somewhat unclear, but still large deficits and efforts to rein in debt expansion suggest a neutral to slightly restrictive stance. In view of the international tensions in the region, we may see an expansion in defense spending over the longer term. Meanwhile, we expect the Chinese government to continue to limit its fiscal expansion after the enormous infrastructure programs of recent years. Most other emerging markets will tend to have to limit fiscal spending as well to maintain global investor confidence.

As for the USA, a moderate cut in corporate taxes and a temporary rebate on repatriated profits appeared likely at the time of writing. However, the impact of corporate tax cuts on corporate investment and GDP growth is generally regarded as quite limited. Cuts in personal income taxes would be somewhat more expansionary. In the run-up to the US mid-term elections in November 2018, the temptation for politicians to grant such cuts is significant. That said, the formal (albeit not fully binding) requirement for longer-term budget neutrality will limit the extent of such cuts. Overall, US fiscal policy could turn somewhat more expansionary in 2018. Given that the US economy is already operating at full capacity, this implies an upside risk to inflation as well as interest rates, and thus poses a risk to asset prices.

Fiscal impulse varies across major economies
Change in cyclically adjusted primary fiscal balance, in % of potential GDP

Source International Monetary Fund, Credit Suisse
Last data point 2016 (2017 and 2018 are forecasts)
* Note The forecast for 2018 does not include any of the tax cuts under discussion in Congress.
Spotlight: Recessions
How to (try to) forecast them

Our main macro scenario foresees continued economic expansion, which is the basis for our still positive view on risk assets. But, of course, we need to stay vigilant with regard to recessions. Which tools are useful to assess their probability?

- The longer, the riskier? One might think that the risk of a recession simply goes up the longer an upswing lasts. But academic research shows that there is no evidence, for instance, that the probability of the US economy entering a recession in the coming month rises with the length of the expansion. Therefore, just because the current US expansion is already the second longest on record is in itself no cause of concern.

- Economic momentum? A recession is defined as two consecutive quarters of negative economic activity (summarized by GDP). Some economic data, including business and consumer confidence as well as new orders, is available sooner than GDP itself. However, such data may quickly reverse. Recession forecasts based on it are thus not reliable.

- Economic imbalances! Recessions typically occur when some shock (typically a monetary policy change) hits an economy that is "out of balance." Our recession model includes excess consumer spending and corporate debt as the key imbalances and assesses how far monetary policy is from "normal." For the next 12 months, our model yields a very low probability of a US recession.

- Financial market signals! As investors continuously assess the economic outlook, asset prices may help forecast recessions. Flattening yield curves and rising credit spreads appear to be reasonably good measures of recession risk. The New York Fed’s market-based recession probability model currently signals a 10% probability of a US recession over the next 12 months, but central banks’ large-scale asset purchases (quantitative easing) seem to have weakened the predictive power of such models.
Global Economy: More growth, dearer money

Inflation: Structural forces of disinflation still in place
Despite the significant economic expansion since the financial crisis, inflation in the advanced economies has largely remained below the central banks’ targets. The persistence of slow wage growth and low inflation has surprised most in the USA, where the main unemployment measure has fallen well below what used to be regarded as the critical level at which inflation would pick up. In other countries, particularly Germany, the persistence of low inflation has also surprised, not least because, until 2017, strong growth went hand in hand with currency weakness, which should have boosted inflation.

There are clearly a number of structural factors that favor disinflation: These include intense competition for goods and services on a global or national and regional level; the spread of an internet-based services economy, which increases price transparency, undermines oligopolies and eases market entry; the flexible “gig” economy, as well as digitalization and robotics, which put pressure on specific labor market segments and wage structures; deliberate efforts of governments to deregulate labor markets; and the persistent weakness of organized labor. Absent any serious protectionist measures, we believe these structural factors will remain in place.

Tightening labor markets suggest upturn in wage inflation
Nevertheless, we are likely to see some cyclical upside in inflation pressure emerging in 2018, especially in countries where the economic recovery is well advanced. Here, tightness in labor markets should translate into faster wage growth, which should lead to somewhat higher price inflation. In the USA, wage inflation was arguably held back because many rather low-skilled and low-wage workers that had suffered the largest job losses in the crisis gradually re-entered the labor market during the economic recovery. As this labor reservoir dries up, the traditional relationship between unemployment and wage inflation should re-emerge more clearly. Special factors such as reduced healthcare and rental inflation may also fade. Finally, if Congress were to approve significant tax cuts, the risk of overheating and upside inflation pressures would increase.

Cyclical inflation risks are clearly lower in much of Europe, where the economic recovery has not been as extended and uniform. Even here, however, inflation should continue to creep up. Across emerging markets, the outlook differs considerably among countries depending on the longer-term stance of monetary policy, currency strength and the state of the business cycle. Yet, on the whole, the period of significant declines in inflation in emerging markets is also likely to be behind us.
Globally, the low point of inflation is behind us
While most estimates suggest that there still exists a so-called output gap globally, i.e. that GDP is still running below trend, efforts are clearly underway in various sectors, notably steel, to cut excess capacity and thereby re-establish pricing power. The fact that Chinese producer price inflation has turned decidedly positive is one of the consequences. We also note that some technology sectors have begun to register price increases, which suggests that supply is not infinitely elastic in “new economy” sectors either. In our view, the period of pronounced disinflation is thus largely behind us.

Finally, we should highlight two specific uncertainties regarding the inflation forecast: First, the strong growth picture we have outlined suggests some upside risks to commodity prices and thus inflation globally. Second, and less likely, a move from protectionist rhetoric to action would lead to price shocks in the countries and sectors where tariffs are imposed. That said, the more significant impact of protectionist measures would be to undermine global growth expectations. That would essentially be deflationary, as it would harm confidence and hurt markets for risk assets.

More central banks to join the normalization bandwagon
After years of continuously adding ever more variants of unconventional measures to their policy menu, 2017 marked the beginning of a broader normalization of monetary policy. The US Fed in particular raised interest rates at a faster pace and began to cut the size of its balance sheet by reducing the rate at which it reinvests maturing bonds. Looking into 2018, the Fed will most likely continue its two-pronged policy tightening, with three interest-rate hikes expected. The second prong, balance sheet reduction, is scheduled to accelerate. Meanwhile, the ECB has announced that it will begin to slow and probably end its asset purchase program in 2018. Other central banks, in particular the Bank of Canada and the Bank of England, already began to raise rates in 2017. Meanwhile, the Swiss National Bank effectively ended its balance sheet expansion in mid-2017 as abating CHF appreciation pressure allowed it to desist from further foreign exchange purchases.

While much of the focus in 2018 will be on slowing and then ending the expansion of central bank balance sheets, a number of central banks may also begin to raise interest rates, albeit very cautiously. Given that the global economy is now in a phase of synchronized expansion, in contrast to 2015 and early 2016 when the Fed was pondering rate rises, the lag between the end of balance sheet expansion and rate hikes is likely to be shorter than in the USA.

The ECB may begin to raise rates only in 2019, a few months after ending balance sheet expansion. Most other continental European central banks will probably wait for the ECB to take the lead, although the Swedish Riksbank may begin to move rates out of negative territory earlier. The SNB would do so only if the Swiss franc were to weaken more noticeably. The Bank of Japan is likely to be the only major central bank to keep rates unchanged while continuing its quantitative easing program, albeit at a reduced pace. Finally, in emerging markets, the trajectory of interest rates will vary depending on the inflation outlook and currency strength. However, with few exceptions such as Brazil, Argentina, Russia and possibly Mexico, the leeway for cutting interest rates will narrow as the leading central banks move in the opposite direction.
The period of pronounced disinflation is largely behind us.

Will rate hikes pose a threat to growth?
While this may not be so pertinent in 2018, the key medium to longer-term issue is how far central banks will actually go with their rate hikes. In other words, the question is where the so-called neutral, or natural, rate lies beyond which rate hikes would render monetary policy restrictive and thus increase recession risks. The key long-term determinant of the neutral rate of interest is understood to be the long-term rate of economic growth determined by productivity growth and demographics. Estimates of this rate have been lowered considerably over the past years. The latest median estimate of the Fed’s Open Market Committee puts the US neutral rate at 2.75%. With inflation expected to reach the targeted 2%, the real equilibrium Fed funds rate would thus be at just 0.75%.

Our own estimate is similar while the financial markets’ projections imply an even lower rate. All this suggests that a further three hikes of the Fed funds rate in 2018, which would put it above 2%, would take it quite close to the currently estimated natural rate. While this is unlikely to slow the economy significantly – noticeable slowdowns or recessions typically occur only after monetary policy significantly overshoots the natural rate – the discussion over excessive policy tightening and the potential for a US economic slowdown may well intensify toward the end of 2018.

Finally, our estimates of the natural rate are considerably lower for a number of other advanced countries, including Switzerland and Japan. In both cases, we estimate that the real natural rate is in fact negative. In the Swiss case, this is in part due to the structural safe-haven discount on interest rates. As inflation is likely to remain well below the central bank’s target, we project short-term nominal rates to stay in negative territory in Switzerland well into 2018 and possibly beyond.
Spotlight: Cryptocurrencies
Threat or opportunity?

If and when central banks provide their legal tender in digital form, existing cryptocurrencies will not be able to compete for transactions purposes.

Blockchain vs. cryptocurrencies
Cryptocurrencies are based on the so-called blockchain, or distributed ledger, technology by which information is stored across the internet and, by design, is close to immutable. With transactions having to be verified by a broad array of internet users, as opposed to single trusted parties, transparency and security can be enhanced. Potential applications go well beyond finance and include the execution and maintenance of all kinds of “smart” contracts, for instance in real estate.

Digital currencies vs. financial intermediaries
Due to their safety and low cost, digital currencies should have significant advantages for financial transactions. The blockchain technology could, for instance, eliminate the need for intermediaries such as centralized financial exchanges and customers could transact without going through their banks. This is why various networks of banks are themselves considering whether and how to introduce digital currency.

Central bank digital money vs. private cryptocurrencies
Central banks are also studying the possibility of transitioning to digital money, not least because their monetary monopoly is threatened by it. They could provide cryptocurrency accounts to the private sector directly or in cooperation with banks. By precisely steering the supply of digital money, the price level could be stabilized more effectively. In the event of a deflationary shock, money hoarding could be prevented by charging for digital currency holdings (i.e. imposing negative interest) or by providing more digital money to the public (“helicopter money”). Well managed central bank cryptocurrency should “crowd out” volatile private cryptocurrencies as a medium of exchange. Regulatory pressure poses an added risk to them. Yet because their supply is limited per algorithm and storage costs are around zero, some may still survive.
Uncertain impact of balance sheet contraction
In addition to uncertainty over the natural rate, markets are also likely to focus on the effects of the ongoing or planned balance sheet reduction of the major central banks. Central banks began to purchase assets because the short-term policy rates had dropped (close) to zero, which was regarded as the lower limit. Quantitative easing (QE) was thus seen as an added tool to further depress longer-term interest rates and thereby stimulate the economy. For example, staff at the US Fed estimated that by 2016, the Fed’s balance sheet expansion had lowered 10-year Treasury yields by 100 basis points. Conversely, reducing the size of the balance sheet should, in principle, boost interest rates and thus dampen growth.

The effects of the reversal of QE are uncertain, however. By containing inflation expectations, the removal of QE might dampen any rise in bond yields, limiting the effect of growth. Some research suggests, however, that growth would be dampened more substantially because the central bank would provide fewer cash balances to banks, which might drive up the cost of liquidity and credit to the overall economy. Finally, the specifics of central bank investment policies, e.g. the Fed’s reduced investments in mortgage-backed securities, could increase volatility in some, or all, segments of the bond market. While we do not believe that central bank balance sheet reduction – if well signaled – is going to have any major disruptive effects, it does seem clear that in combination with gradual rate hikes, the global economy is about to face a period of dearer money. The year 2018 could thus well mark the beginning of the end of liquidity-driven economic growth and asset prices.

Investor takeaways

- Global growth should remain robust, with both advanced and emerging markets enjoying a more synchronized recovery. This is generally supportive of risk assets.

- A key growth driver is likely to be higher capex. Companies and national markets with a focus on capex goods and services should benefit.

- Inflation is likely to remain quite moderate due to structural factors, but cyclical factors suggest the low point is behind us. An unexpected upturn in inflation would signal heightened risks of faster monetary tightening, which could put pressure on asset markets.

- Our base case is for only moderate monetary policy tightening in the advanced economies while in selected emerging countries, interest rates may still fall. Their markets should in general outperform.

- The specific market reactions to central bank balance sheet reduction are difficult to predict. As this trend gathers pace, possible new reaction patterns should be carefully assessed.

- The evolution of global trade policy should be watched carefully. If contrary to our expectations, protectionist actions become more prevalent, a more defensive investment stance would be advised.
Regions in focus

As the global upswing is likely to continue in 2018, China should remain focused on stability. In Latin America, key elections could result in a further strengthening of market-oriented policies. The Eurozone should also see some gradual reforms.

Economic growth surprised to the upside almost everywhere in 2017. In 2018, still supportive monetary conditions, stronger capital expenditure and slightly easier fiscal policy should continue to boost growth and global trade.

Emerging markets: A growth pillar again
Given its leadership’s focus on moderating credit excesses, economic growth is unlikely to accelerate in China, but the government can prevent a sharper slowdown. Considering China’s increasing weight in the global economy, its growth contribution is set to increase. The contribution of other emerging markets, most notably in Asia, is likely to improve as well. Elections in Brazil and Mexico will shape economic policy. In Russia, monetary and fiscal stability suggests steady growth, while Turkey should benefit from the global upswing despite domestic political tensions. With better growth, the strong decline of inflation of past years is likely behind us, reducing the room for still lower interest rates. But as long as currencies are stable, upside risks to inflation and interest rates are limited.

Advanced economies: Continued robust growth and moderate inflation
In the advanced economies, we expect steady growth with possible upside surprises. In the USA, stronger corporate capital spending (capex), a recovery in productivity and a likely fiscal boost should prolong the business cycle for another year. In the Eurozone, the newfound cyclical strength should persist, barring an unlikely political crisis or an extreme appreciation of the euro. UK growth should remain subdued given Brexit-related uncertainty, while Switzerland is set to benefit from Eurozone strength and a weaker currency. Meanwhile, Japan and Australia should be supported by the upswing, while Canada draws support from a robust USA and higher commodity prices. Given tightening labor markets, inflation is likely to creep up in the advanced economies, but upside risks are limited.
United States: From secular stagnation to overheating?

At the end of 2017, the US economy was on a solid footing, with employment expanding, private consumption growing, corporate investment picking up but the housing expansion a bit more subdued. Monetary policy was accommodative, despite the Federal Reserve’s interest rate hikes and balance sheet reduction program. Financial conditions in general eased throughout the year on the back of a weaker USD, rising equity markets and tightening credit spreads. The view of an economy in “secular stagnation” seemed ever harder to sustain. The key questions for 2018 are how strong any fiscal policy impulse may be; whether investment growth will stay robust, and whether that translates into a productivity recovery; and whether and by how much inflation will rise.

Measurable fiscal impulse
While the details of any likely fiscal policy changes are uncertain, some corporate tax cuts and a one-time tax reduction on repatriated earnings held overseas seem likely. Yet their growth impact is probably going to be limited. As a bipartisan agreement on these as well as income cuts seems unlikely, Republicans will need to pass them with their own narrow Senate majority, implying the need for revenue neutrality on a 10-year horizon. However, by front-loading tax cuts, there is likely to be a moderate fiscal impulse. The November mid-term elections increase the incentive to provide some kind of tax “present” to voters. In sum: The US business cycle is likely to stay robust for another year.

Inflation uptick
Even absent any fiscal impulses, we expect US core inflation to begin moving higher in coming months, mostly driven by fading base effects that lowered inflation in 2017. The tighter labor market should also lead to rising wage growth. The impact on inflation will be limited if productivity growth recovers. We do see chances for somewhat better productivity growth because corporate investment should continue to rise in response to the tight labor market and a stronger growth outlook of corporations. Our analysis suggests that the cyclical expansion will in the end boost inflation, as the Phillips curve, which postulates a trade-off between inflation and unemployment, would predict (see chart). By the end of 2018, the US economy may thus be getting closer to a phase of “overheating,” despite monetary policy tightening.

The Phillips curve still exists
Underemployment rates and core services inflation for various periods

---

Source: Datastream, Credit Suisse
Last data point: August 2017
China: The pursuit of stability

Over the past year and a half, China’s economy has benefited from the global recovery. Exports rose strongly, in part due to the devaluation of the renminbi. Domestically, the significant infrastructure stimulus of 2015/16 had positive effects well into 2017. Meanwhile, the reduction of excess capacity in mining and industry ended a five-year period of producer price deflation and bolstered profits of firms in these highly leveraged sectors. This eased concerns over corporate indebtedness, at least temporarily. That said, overall credit continued to grow at a pace somewhat above that of nominal GDP (see chart).

Greater efforts to align credit and GDP growth
With President Xi Jinping having strengthened political control after the 19th Party Congress, the focus of policy in 2018 will, in our view, tend to shift from stimulating the economy to reining in debt. Growth may thus decline a bit after the surprising strength in 2017, not least because consolidation in key industries will likely continue. With a strong global economy providing some downside protection, the government is likely to slow infrastructure spending, while private consumption and corporate investment could contribute more to growth. As the state banks rein in credit growth, real estate investment and prices may continue to decelerate. It remains to be seen, however, whether the authorities will allow the market mechanism to take a more prominent role, for instance by allowing more explicit defaults to occur.

Renminbi stability
The authorities’ quest for stability, enshrined in last year’s slogan “seeking progress while maintaining stability,” included the tightening of capital controls and a moderate rise in money market rates. In response, the renminbi appreciated somewhat on a trade-weighted basis in 2017 after a weak 2016, and capital outflow pressures abated while foreign reserves began to recover. Although most of the tighter policy set-up is likely to remain in place in 2018, capital controls may be eased moderately. Given fairly robust Chinese fundamentals, we would not expect this to trigger a renewed phase of renminbi weakness. Currency stability should limit the risk of protectionist action against China as well as the risk of heightened pressure on other emerging market currencies.

Large credit gap has narrowed
Difference between growth rate of nominal credit and GDP in China, in %-points

Source: Datastream, Credit Suisse
Last data point: Q3 2017 (GDP estimated)
Europe: Strong growth but limited reforms

2017 will be remembered as the year in which growth finally reached all of continental Europe and political risks diminished, as the pro-European Emmanuel Macron was elected president in France and Chancellor Angela Merkel won a fourth term in Germany. In 2018 growth should remain robust, while a reinvigorated German-French alliance could lead to enhanced cooperation in the European Union (EU) and the Eurozone. While Brexit negotiations are unlikely to be completed, economic pressure on the UK, as well as its political fractures, suggests a move toward a soft and delayed Brexit. In Italy, the constitutional structure suggests that a centrist coalition will continue to govern after the elections in the spring, even though euroskeptic parties are stronger than elsewhere and economic fundamentals still weaker. The risk of a political crisis or euro exit of Italy thus remains limited, in our view.

A redirection of limited EU funds
Fundamental changes in the EU, in particular major spending programs, remain unlikely given diverging national interests and severe budget constraints, exacerbated by a UK exit. However, a few topics could find greater support including enhanced security cooperation and infrastructure spending. Defense coordination would generally not require extra funds. Costs might even be saved by a better pooling of resources. Given continued concern over the influx of refugees, greater spending on border control and payments to the countries of origin also seems likely. Some cuts in agricultural subsidies may help fund other areas.

Bad loans of Eurozone banks are declining
Non-performing loans as share of total bank assets and total bank loans outstanding (in %)

Eurozone: Focus on further bank consolidation
With the ECB bound to end asset purchases in 2018, some fear renewed financial stress in the Eurozone. We believe these risks are limited, as the banking system is significantly more robust due to recapitalization, lower non-performing loans (see chart), consolidation, and reduced exposure to sovereign bonds. It seems likely that regulators will press for added bank consolidation, which should further boost bank profitability. However, the acceleration of common deposit insurance, not to mention broader fiscal union, seems quite unlikely in light of divergent political interests. What is more likely is the eventual transformation of the European Stability Mechanism into a strengthened European Monetary Fund.
Thanks to a "super cycle" fueled by high immigration and a real estate boom, Switzerland sailed through the economic turmoil after 2007 more or less unscathed. Despite the much stronger CHF, the Swiss export champions, in particular the pharmaceuticals sector, contributed to robust growth. Yet both key growth drivers – immigration and the property cycle – are expected to lose momentum going forward. Net immigration is already at the lowest level since the free movement of persons with the EU was introduced in 2007. This largely reflects the improved labor market situation in the European countries of origin, a trend that is likely to persist. Should the balance of immigration to Switzerland fall to its long-term average, GDP growth would be an estimated 0.1 to 0.2 percentage points lower than in the peak years.

Residential property to exert a drag
Weaker population growth, high household debt, tighter conditions on mortgages and the increasing oversupply of residential property are challenging the real estate sector. According to our estimates, between 5,000 and 6,000 excess apartments are currently constructed each year, accounting for a good 10% of new construction activity. Removing that "excess" would lower GDP by around 0.5%, but given full order books, the construction sector should still support GDP growth in 2018. The normalization of construction activity and a correction of the oversupply will weigh on growth in subsequent years (see chart).

Export recovery a partial offset
The Swiss export champions are not immune to setbacks, as they are at risk of interventions by governments worried about rising healthcare costs. However, the overall export outlook is more favorable due to stronger growth and a weaker CHF. Given reduced demand for safe haven currencies, the CHF should remain weak. However, even in the very open Swiss economy, exports constitute only about 40% of GDP. To achieve sustainable prosperity gains, stronger productivity growth is needed in domestic sectors that are still protected from competition and are thus less efficient.
Emerging markets: Momentum to offset tighter dollar liquidity

The 2018 outlook for the major emerging markets is quite benign. The expected moderate trend deceleration of Chinese growth should not significantly impede growth elsewhere. More of a challenge could be reduced USD liquidity as the Federal Reserve tightens policy.

Asia: Stronger growth across the region
Growth prospects are strong across most of Asia. In India the slowdown due to the policy “shocks” of 2016 and 2017 should give way to better growth in 2018. Elsewhere, the picture is also quite solid. Indonesia is expected to grow slightly above 5%, driven mostly by private consumption, but the current account may worsen and put pressure on the currency and inflation. The major export-oriented economies of South Korea and Taiwan should continue to benefit from the global upswing and the recovery in consumer as well as corporate capital goods expenditures.

EMEA: Benefiting from Eurozone expansion and more stable commodity prices
In Eastern and Central Europe, the outlook remains particularly bright in Poland, the Czech Republic, Hungary and many smaller economies, which continue to benefit from the outsourcing trend of Western European companies and the Eurozone’s cyclical upturn. Russia’s economy is likely to continue its recovery path, benefiting from more stable commodity prices as well as low inflation and declining interest rates. Turkey’s industries are also supported by the European and global upswing despite the dependence on foreign capital inflows. The outlook for South Africa is clouded by political uncertainty, but the reformist forces appear to be gaining ground.

Latin America: Watershed elections in Brazil and Mexico
Political developments will shape the outlook for Latin America. After years of scandal and uncertainty in Brazil, chances are that a reformist president who could carry out much needed reforms is elected, supporting the economic recovery. Mexico will see elections in July 2018. With leftist candidate López Obrador currently leading in the polls, the outlook for further domestic economic reforms is somewhat uncertain. While the NAFTA renegotiations add to uncertainty, we expect Mexico’s growth to be roughly in line with previous years. Argentina’s reform policies should remain in place after the congressional elections in October 2017.

Forecast 2018

Forecasts for growth and inflation
YoY, in %

<table>
<thead>
<tr>
<th>GDP</th>
<th>Inflation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Global</td>
<td>3.1</td>
</tr>
<tr>
<td>USA</td>
<td>1.5</td>
</tr>
<tr>
<td>Canada</td>
<td>1.5</td>
</tr>
<tr>
<td>Eurozone</td>
<td>1.8</td>
</tr>
<tr>
<td>Germany</td>
<td>1.8</td>
</tr>
<tr>
<td>Italy</td>
<td>0.9</td>
</tr>
<tr>
<td>France</td>
<td>1.2</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>1.8</td>
</tr>
<tr>
<td>Switzerland</td>
<td>1.4</td>
</tr>
<tr>
<td>Japan</td>
<td>1.0</td>
</tr>
<tr>
<td>Australia</td>
<td>2.5</td>
</tr>
<tr>
<td>China</td>
<td>6.7</td>
</tr>
<tr>
<td>India</td>
<td>7.1</td>
</tr>
<tr>
<td>Brazil</td>
<td>-3.6</td>
</tr>
<tr>
<td>Russia</td>
<td>-0.2</td>
</tr>
</tbody>
</table>

* Weaker than trend due to statistical effects.

Source: International Monetary Fund, Credit Suisse
Last data point: 08 November 2017
Note: Global numbers are based on purchasing power parity weights.
E=estimate, F=forecast
Insights from Next Generation investors

Millennials are increasingly making headlines. They will soon be the dominant generation in the active working population worldwide. They are an increasing focus of politicians and corporates, shaping trends as citizens, employees, consumers and investors.

On an almost weekly basis, Millennial consumer start-ups or companies are being taken over by large corporations that aim to cater to Millennials. The electrification of vehicles is accelerating, not only due to the diesel controversy but also the Millennial consumers who demand clean vehicles. We believe 2018 will see many developments aimed at preparing the economy for the Millennial wave, the Next Generation’s footsteps.

At Credit Suisse, we attribute great importance to the Next Generation as employees, clients and investors as well as the drivers of new investment trends and ideas. Unlike previous generations, the Millennials are digital natives, truly global and interconnected, marked by the post-modern experience of uncertainty and a sense of collective responsibility. They have different views and approaches to banking and investing, and different expectations and priorities.

Our Investment Outlook 2018 provides a platform for our Next Generation investor community to share their priorities for the next year, as summarized in the top ten Next Generation topics. Furthermore, community members have contributed “deep dive” articles to share their views on three of the topics.
Next Generation
Top ten topics

**Affordable housing:** In many countries, houses are unaffordable for a large part of the population. Due to urbanization and migration, the need for affordable housing is becoming more acute.

**Applied genetics:** A continuous expansion of our understanding of the genome, coupled with increasing genome editing capabilities, will lead to novel therapies in medicine. These capabilities will also be applied in industry, agriculture, and energy.

**Energy efficiency:** Energy efficiency measures such as housing insulation or efficient heating and air-conditioning systems help to meaningfully lower energy consumption.

**Blockchain:** Blockchain is a secure technology that allows participants to transact without a trusted central party. It could therefore lead to a more decentralized, efficient economy.

**Vertical farming (proximity agriculture):** Redeveloping urban space to bring agriculture to cities, using techniques such as growing plants in vertically stacked layers, indoor farming or integrating agriculture into existing structures.

**Modular construction solutions:** Modular solutions in housing construction help to lower costs, waste and construction time thanks to replication and efficiency.

**AI / Robotics:** Progress in high performance computing, big data and the Internet of Things is now at a tipping point where intelligent machines/algorithms can solve problems that previously required human intelligence. This opens up a huge new IT market.

**Sustainable consumables:** Consumables produced in a socially and environmentally responsible way, taking into consideration the entire supply chain of goods.

**Future of advisor-client relationship in private banking:** Technology will shape future client relationships as banks offer more holistic services, deploying such tools as robo advice or personal financial management applications.

**Education:** Education brings opportunities. Making education accessible to most people represents a huge and growing market where the private sector and impact investing can play a role alongside governments.
Energy efficiency

Savings from energy efficiency have the potential to surpass the output generated by any single fuel source. Electric motor systems account for more than half of today’s electricity consumption. According to the International Energy Agency (IEA), applying more stringent standards to such systems, from transportation to industry, would reduce global energy needs by 30%. However, energy efficiency only materializes once the combined impact of several small and scattered interventions becomes perceptible. The advent of the Internet of Things (IoT) technologies and improved sensors have reduced upfront capital expenditure and made it easier to aggregate the effects of the interventions. Putting an industrial plant online and monitoring energy consumption of all machinery can reduce energy costs by as much as 20%. It all begins with rethinking how energy is used in a production process. Depending on the initial conditions, a project redesigning motor utilization pays itself back in 4 to 8 months and a complete retrofit of equipment pays itself back in 12 to 18 months using the savings from the interventions. These relatively short time frames open up new investment opportunities. A savings-backed industrial retrofit debt fund, for instance, has a lower delinquency rate, and new business models where companies sell horsepower or cubic meters of air instead of engines, and air compressors ensure high equipment efficiency, higher margins and steady income streams compared to one-time equipment sales.

The power of blockchains

Similar to the gold rush of the 19th century, 2017 has been a real token rush with the rise of initial coin offerings (ICOs) and the launch of decentralized services such as prediction markets, storage, and computation. We have also seen experimentation led by institutions and governments trying to validate technological assumptions such as transaction throughput, business logic execution through smart contracts and near real-time settlement, etc.

2018 promises to bring more decentralized services that may disrupt industries such as investment banking, insurance and utilities (i.e. energy, water, public transportation), to name but a few. Industries are going to launch pilot applications leveraging the power of blockchains: data integrity, tokenization of assets, and “trustless” business logic execution that require no prior trust relationship among the transacting parties. Another thing to look out for in 2018 is Layer 2 protocols, mainly for public blockchains, which will enhance scalability and provide more flexibility around smart contracts.

Blockchain technology will continue to provide new social empowerment tools offering an avenue toward increased individual sovereignty. It will also provide machine-to-machine transaction networks. In a world of connected homes and self-driving cars, the idea of enabling machines to transact value promises to have a profound impact.

Censorship-resistant public participatory decentralized blockchains (like Bitcoin / Ethereum / Litecoin) will continue to improve and adopt new use cases, but in 2018 new contenders like R3’s Corda or IBM’s Hyperledger “blockchains” will also gain traction and new use cases will be deployed to provide efficiency gains for industrial applications.
Credit Suisse focuses on building relationships not only with the current generation that manages and builds wealth, but also with their children, the younger generation. This is why we launched the Global Next Generation Initiative in 2005. At the heart of the various Next Generation programs is providing a foundation of knowledge of financial markets and building an understanding of how to tackle cross generational issues within family businesses or opportunities for peer-to-peer networking.
Financial markets
Growth underpins equities
As strong economic growth boosts earnings, subdues volatility and raises confidence, global equity markets can rise further. Emerging market equities and domestically oriented Eurozone assets like real estate equities are most favored (page 40). Credits face more fundamental restraint as corporates re-leverage balance sheets, so spreads should ultimately widen. Bond yields should rise, but mainly outside the USA, which should mean another soft year for the US dollar.

Mind the risks
Despite our optimistic outlook for the world in 2018, there are a number of risks investors should keep in mind. Among the chief risks we identify (page 48) are potentially counterproductive policies, especially protectionist measures, geopolitical risks such as an escalation of the tensions between the USA and North Korea or business cycle risks such as an unexpected slowdown in China or the USA. For investors to best protect portfolios, diversification remains key.

Portfolio checks 2018
Defining how a portfolio of assets should be composed is the critical first step toward achieving investment success. After all, more than 80% of a portfolio’s return and risk are determined by this investment policy, or Strategic Asset Allocation (SAA), and only 20% by tactical positions and security selection. We look at the most important issues to consider when conducting portfolio checks and defining the SAA (page 50).

Investment themes 2018
Every year, we identify the top investment themes for the year ahead (page 52). This time around, we focus on potential winners in emerging markets as well as beneficiaries of the continued revival of the Eurozone in various asset classes. Moreover, we point to equities and sectors that stand to benefit from the expected pick-up in corporate investment and that are related to our long-term Supertrends. Furthermore, we highlight a variety of fixed-income ideas for active and specialized investors.
Financial markets have again proven resilient to geopolitical shocks in 2017. With growth robust, inflation moderate and liquidity ample, interest rates should slowly rise. Equities should make further gains in 2018. Upside surprises to inflation pose a main risk.

Despite heightened tensions on the Korean peninsula, global equities rose strongly in 2017, supported by synchronized growth, lower-than-expected inflation and ample liquidity from central banks. We believe that the risk of a global recession is low in 2018, so our equity outlook is generally constructive. It is a simple but powerful thesis: Growth boosts earnings, subdues volatility, and mitigates default risk.

Elevated equity valuations are not yet a significant concern. Traditional metrics such as the price/earnings ratio are high, but not yet at extremes that would point to excessive exuberance. Longer-dated bond yields are anchored by low short-term interest rates and moderate inflation. The likely continued strength of earnings growth and the still high equity risk premium should encourage inflows into equities. Meanwhile, still low interest rates are likely to entice corporates to re-leverage, which will also tend to favor equities over credit.

Despite the positive backdrop, financial markets are likely to face a number of new challenges in 2018. Most importantly, central banks around the world will begin to remove liquidity in a more concerted fashion. However, the net volume of liquidity being added through central bank programs should stay positive well into the second half of 2018. At that point, risks to markets could rise, especially if inflation were to move up as well.
Global yield convergence favors US Treasuries
As the Fed tightens further in the absence of any rapid rise in inflation, US bond yields are likely to plateau. While the potential announcement of corporate tax cuts could put some upward pressure on yields, we would see this as an opportunity to add to US fixed income exposure. In contrast, yields in other major developed countries are likely to rise in trend, albeit moderately, as central banks embark on liquidity removal. Given the upcoming tapering of the ECB bond buying program and potential build-up in hiking expectations in 2018, we are especially careful on longer-dated German sovereigns and the strongly correlated Swiss franc bond market. Sovereign bonds in the euro periphery might outperform marginally, but quite tight spreads and political risks limit the upside.

Stretched valuations in several credit segments
Valuations for bonds of higher-rated companies more generally look rather stretched, with pharmaceutical issuers, for example, likely to see a deterioration in their credit metrics as they use their large cash balances to remunerate shareholders or issue bonds to fund mergers and acquisitions (M&A). US high yield exposure should also be selective, with the second half of 2018 likely to see a spread widening as companies increase their leverage. A potential limit on the tax deductibility of interest expenses in the USA would amplify the deterioration of credit fundamentals, even if this would tend to restrain issuance in the longer term. Although US non-financial credit market ratios stay at historically low levels and as we do not anticipate a significant increase in bond defaults in 2018, there is likely going to be some pressure for credit spreads to widen.

Forecast/Performance 2018

We prefer equities over bonds in 2018 given solid growth and contained inflation.

<table>
<thead>
<tr>
<th>Equities*</th>
<th>2017 year-to-date performance on 02 November 2017</th>
<th>2018 expected total returns</th>
</tr>
</thead>
<tbody>
<tr>
<td>US equities</td>
<td>17.22%</td>
<td>7.10%</td>
</tr>
<tr>
<td>EMU equities</td>
<td>17.34%</td>
<td>8.30%</td>
</tr>
<tr>
<td>Swiss equities</td>
<td>17.47%</td>
<td>10.00%</td>
</tr>
<tr>
<td>UK equities</td>
<td>9.30%</td>
<td>5.40%</td>
</tr>
<tr>
<td>Japanese equities</td>
<td>18.87%</td>
<td>11.70%</td>
</tr>
<tr>
<td>EM equities</td>
<td>29.41%</td>
<td>12.30%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Bond yields</th>
<th>Close on 02 November 2017</th>
<th>End-2018 forecast</th>
</tr>
</thead>
<tbody>
<tr>
<td>10-year US Treasury yield</td>
<td>2.35%</td>
<td>2.70%</td>
</tr>
<tr>
<td>10-year German Bund yield</td>
<td>0.37%</td>
<td>1.00%</td>
</tr>
<tr>
<td>10-year Swiss Eidgenossen yield</td>
<td>-0.08%</td>
<td>0.30%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Credit spreads</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Investment grade spreads**</td>
<td>96.00</td>
</tr>
<tr>
<td>High yield spreads**</td>
<td>321.00</td>
</tr>
<tr>
<td>Emerging market HC spreads***</td>
<td>283.00</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Currencies &amp; commodities</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>EUR/USD</td>
<td>1.17</td>
</tr>
<tr>
<td>USD/CHF</td>
<td>1.00</td>
</tr>
<tr>
<td>EUR/CHF</td>
<td>1.16</td>
</tr>
<tr>
<td>USD/JPY</td>
<td>114.10</td>
</tr>
<tr>
<td>GBP/USD</td>
<td>1.31</td>
</tr>
<tr>
<td>Gold (USD/oz)</td>
<td>1276.80</td>
</tr>
<tr>
<td>WTI (USD/bbl)</td>
<td>54.81</td>
</tr>
</tbody>
</table>

* Performance and expected returns are total return including dividends. Markets refer to MSCI country/regional indices in local currency. Performance of the periods 02/11/2012–02/11/2017 for those indices in chronological order are: MSCI USA: 26.5%, 16.7%, 5.1%, 3.6%, 24.6%; MSCI EMU: 26.2%, 5.3%, 16.7%, -4.5%, 26.6%; MSCI Switzerland: 27%, 10.6%, 4.5%, -4.2%; MSCI UK: 19.2%, 0.5%, 0.1%, 13%, 12.4%; MSCI Japan: 63.3%, 14.8%, 17.8%, -9.9%, 29.5%; MSCI EM: 10.2%, 6%, -3.1%, 8.1%, 27.2%.

** Barclays Global Agg Corporate and Global High Yield index

*** JP Morgan EMBIG Div. (sovereign index)

Source: Datastream, Credit Suisse
Last data point: 02 November 2017
Note: These forecasts are no reliable indicators of future performance.
In terms of investment grade credits, we believe that BBB-rated corporate bonds offer the best compensation versus historical default risk. BBB issuers also tend to be more defensive in their balance sheet management to sustain their investment grade status. We thus prefer seeking exposure in this rating class. Valuations of higher-rated companies look rather rich. Within the Eurozone, we are maintaining our long-held preference for bonds that are not eligible under the ECB buying program, in particular bank and insurance subordinated debt. Improved profitability and a lower Eurozone risk premium should provide further support there.

**Emerging market bonds likely to perform well**

Emerging market hard currency bonds are, in our view, likely to continue to perform well. Strong global growth and higher commodity prices suggest that most emerging economies will continue to recover, while the external balance improves. The latter should limit the risk of renewed currency weakness. Economic reforms in countries such as Brazil and Argentina may also provide support. The key risk to EM hard currency bonds would be a faster-than-expected tightening by the US Fed, as this would reduce liquidity and capital inflows and put pressure on EM currencies.

However, local currency bonds seem less vulnerable in this regard given that local real rates are more attractive than in the developed world and since inflation looks set to remain moderate. Yet in our base case of cautious Fed tightening and a somewhat weaker USD, this segment would be favored given a still high carry and the potential for some further local interest rate cuts. For instance, Turkey and South Africa provide a fairly attractive risk premium, which largely discounts domestic risks. Expected local returns in Russia also look favorable, while expected returns in Brazil appear more limited after the strong rally in 2017. For corporates, we generally consider valuations to be unattractive relative to global credits, especially in the BBB and BB segments. We most prefer markets that offer a valuation advantage or the potential for further cyclical improvement, notably Mexico, Turkey and Argentina.

---

**Global growth leads earnings growth**

![Graph showing global growth leads earnings growth](image)

- Earnings per share (EPS) growth YoY %
- Year-on-year difference in GDP growth (right-hand scale, % point)

**Emerging market debt profiles**

**Debt/GDP (in %)**

<table>
<thead>
<tr>
<th>Country</th>
<th>Government</th>
<th>Non-government</th>
</tr>
</thead>
<tbody>
<tr>
<td>China</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Malaysia</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Thailand</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hungary</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Turkey</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Poland</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Brazil</td>
<td></td>
<td></td>
</tr>
<tr>
<td>South Africa</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Russia</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mexico</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Indonesia</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Source** IIF, Credit Suisse

**Last data point** Q2 2017

**Note** Government vs. non-government debt (households, financial and non-financial corporates) in % of GDP.
Spotlight: Default rates

Default rates are expected to trend lower in 2018, but the spread outlook is challenging.

Credit spreads recently reached tight levels not seen since before the financial crisis. Excluding an illiquidity premium, credit spreads ultimately reflect the probability of default and the extent of losses in case of bankruptcy, both of which are closely linked to the health of corporate balance sheets. Sharp increases in default rates and a drop in bond recovery rates typically occur during recessions when lending conditions significantly worsen. A recession looks very unlikely in 2018, with bond default rates also expected to trend lower given healthier balance sheets of commodity issuers. At the same time, fundamentals are starting to deteriorate in other sectors as corporates re-leverage their balance sheets. Moreover, loan recovery rates – a better cyclical indicator – are already declining. As the weakening in credit metrics progresses, we anticipate credit spreads to gradually mirror higher default uncertainties.

US bond default and loan recovery rates (12-month trailing rates)

Secured loans rank higher than unsecured bonds in case of bankruptcy, as they are secured by assets.

Source
Moody’s, Credit Suisse

Last data point
August 2017
Potential for another good equity year
In 2017, equity markets were supported by a very favorable macroeconomic backdrop of strong growth, low inflation and still accommodative monetary policy as well as an acceleration of earnings growth. Although earnings growth should remain robust in 2018, the pace is unlikely to accelerate. In fact, we expect it to decelerate from an estimated 14% in 2017 to around 10% in 2018. This should still allow for clearly positive total returns of 7%–10% in the major equity markets in 2018.

Emerging markets and Japan still offer catch-up potential
Regionally, the USA could fare slightly better than Europe on earnings. Yet valuations are more supportive for Eurozone equities, so both regions offer potential, in our view. The path to US tax reform still looks difficult, but could tilt US performance to the upside thanks to lower corporate tax rates as well as tax breaks on earnings repatriated from overseas. Another potential short-term support for US equities could come from deregulatory measures in the financial sector. European financials should benefit more from a combination of higher yields, a pick-up in loan volumes as well as continued consolidation in the sector.

With our positive global growth picture and a still very accommodative Bank of Japan (BoJ), Japanese equities should also do well in 2018. Among the large equity markets, they usually benefit most from solid global growth, but suffered initially in 2017 due to a stronger yen. With the BoJ likely to be the last large central bank to remain fully committed to quantitative easing, we see a more favorable environment for Japanese equities in 2018.

Finally, we continue to expect emerging market (EM) equities to further outperform the major advanced equity markets. Strong global growth, the continued stabilization in China and still somewhat moderating inflation and interest rates support these markets. That said, a repeat of the strong outperformance seen in 2017 seems quite unlikely to us. Moreover, as in bonds, more aggressive Fed tightening would pose a risk to EM equities. However, one segment that has lagged in 2017 and has catch-up potential in 2018 are EM small cap stocks. As regards local politics, we see some opportunities for reform, for instance in Brazil, but also some risks, for instance in Mexico. A shift of the US administration towards an openly protectionist stance (which is not our base case) would pose risks to most emerging markets.

We expect M&A activity to pick up in 2018, with the healthcare sector a key beneficiary.

M&A and capex as key sector drivers
Given still attractive financing conditions and the corporate search for growth opportunities, we expect M&A activity to pick up in 2018. In this context, we highlight the healthcare sector as one sector that stands to benefit from such a pick-up. Healthcare remains well supported by structural trends such as aging and the rising emerging market middle class, while regulation could also ease slightly in the USA if regulators speed up the approval process for new drugs. Considering the correlation between healthcare and Swiss equities, our positive view on healthcare implies a positive bias on Swiss equities, helped additionally by the reversal to a softer Swiss franc trend.
Given our expectations of a global pick-up in capital expenditure (capex), industrials seem to be best placed to benefit despite somewhat expensive valuations. Other cyclical sectors such as software or media should also benefit from further spending by companies. While we like software due to its strong structural growth, we would not recommend an overall positive view on IT throughout the year. The semiconductor cycle is close to its peak and valuations appear very expensive.

**Eurozone real estate with good potential**

Unlike global equities and bonds, where yields have been on a downward trajectory, listed real estate dividend yields have remained stable and at attractive levels. Nevertheless, in some property markets, notably the USA, prices have risen very strongly. This makes such markets vulnerable to rising short-term interest rates.

In other markets, however, valuations are far more reasonable and provide more upside potential. We see Eurozone real estate equities as especially attractive in this regard. We favor this market, as the region’s real estate market is expected to continue to deliver both rental and capital growth. Higher yield than in respective equity and bond markets and an ability to pass on inflation through index-linked leases should continue to support share price growth.

Another market that could surprise to the upside in 2018 is UK-listed real estate. Although UK real estate equities are expected to remain volatile, the Brexit-related downturn and prospect of Bank of England rate hikes appear already well priced in, while company fundamentals and actions are supportive.
Active management of currency exposure, with particular sensitivity to correlation characteristics, is key to controlling overall portfolio risk.

Currency movements can dramatically alter investment returns. Over the past year, the S&P 500 has returned nearly 15% in local currency. However, due to US dollar weakness in 2017, this has shrunk to less than 10% in unhedged euro terms. Hedging this currency risk would have helped, taking the return back above 12%, but due to the significant interest cost of hedging, would not have eradicated the loss. In making currency hedging decisions, there is more than just the interest cost to consider: currency risk can either add to or subtract from total portfolio risk, depending on the correlation between the selected foreign assets and the exchange rate.

So simply hedging currency risk is not always the answer. Active management of currency exposure and sensitivity to the correlation characteristics are key to controlling portfolio impact, and potentially adding value relative to a passive strategy.

In 2018, investors will need to keep a close eye on these currency hedging factors. Rising US short-term interest rates will keep the cost of hedging US dollars relatively high for most non US dollar-based investors. But note that the correlation between the value of the US dollar (vs. the euro) and the US equity market has also been rising significantly from the extremely negative levels seen in the post-crisis years, arguing for a relatively higher hedge ratio, at least for euro-based investors. Once the European Central Bank starts to move Euro-zone interest rates higher, the case for raising hedges on US dollar exposure will rapidly grow.

**S&P 500 annualized average returns**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Local in USD</td>
<td>14.87%</td>
<td></td>
</tr>
<tr>
<td>Unhedged in EUR</td>
<td>9.40%</td>
<td></td>
</tr>
<tr>
<td>Hedged in EUR</td>
<td>12.63%</td>
<td></td>
</tr>
<tr>
<td>Local in USD</td>
<td>12.64%</td>
<td></td>
</tr>
<tr>
<td>Unhedged in EUR</td>
<td>14.24%</td>
<td></td>
</tr>
<tr>
<td>Hedged in EUR</td>
<td>11.65%</td>
<td></td>
</tr>
</tbody>
</table>

**Source** Bloomberg  
**Last data point** 30 September 2017  
**Note** Historical performance indications and financial market scenarios are no reliable indicators of current or future performance.
Financial markets Growth underpins equities

**A second leg of euro strength?**
The US dollar was a disappointment in 2017, depreciating as monetary tightening of the US Federal Reserve (Fed) was delayed in response to softer-than-expected US inflation. While the Fed is set to tighten further in 2018, which should initially stabilize the dollar, the growing potential for European yield adjustment suggests the euro should ultimately extend its gains, though maybe only in the second half of the year.

The Swiss franc is vulnerable to further euro strength, given its starting point of overvaluation on most metrics. However, strong Swiss fundamentals suggest that weakness should be contained, especially ahead of the Italian election in early 2018. The British pound can continue to appreciate as long as negotiations between the EU and the UK remain on track and point to a “soft” Brexit.

As the BoJ maintains its easing program while other central banks taper and tighten, the Japanese yen is likely to be relatively weak. Nevertheless, such weakness should be contained by the yen’s potential safe haven role and relatively cheap valuation.

**Metals supported in 2018, but gold at risk**
For 2018, robust economic growth should continue to support commodity demand and prices. The rally of industrial metals in 2017 has already attracted significant investor optimism, but average prices should rise further in 2018. Meanwhile, gradual central bank tightening should hold back the price of gold, which remains at risk as real yields rise. Oil is seen trading around a central range of USD 40–60, with inventory levels determining where prices may be trending.

---

Investor takeaways

- With growth robust and bond yields seen as rising gradually, equities are expected to outperform bonds in 2018. Healthcare, telecoms, industrials and financials are our most favored equity sectors.

- Corporate re-leveraging is likely to lead to some credit spread widening. BBB is our most favored segment within credit.

- Good earnings growth and an above-average valuation discount compared to developed world equities should continue to support emerging market equities and selected local currency bond markets.

- With relatively high yields but also cyclical sensitivity, real estate equities are favored in the Eurozone.

- A tighter Fed policy and fiscal expansion may nudge US yields higher, but Eurozone yields are likely to rise more, which should underpin the euro in 2018.

- Commodities are expected to rise. Industrial metals are likely to reflect strong growth, but gold is vulnerable to rising yields. Oil prices are likely to remain range-bound.
Mind the risks

Our base case view of the world in 2018 is optimistic, as we expect a broad-based acceleration of growth. Yet unfortunately, it is not going to be a world without risks.

Many risks have a low probability of occurring, but if they do, they are likely to have a major impact on the global economy and financial assets. Such “tail risks” remind investors that constructing a diversified portfolio is the best way to protect against the unforeseen and the first step to successful long-term investing. Our boxes show the key risks for investors to consider in 2018.

Political risks
- Political stress in the USA
  Failure of US tax reform and deeper political tensions domestically could be very negative for global equities and the USD.

Economic risks
- Credit bubble bursts in China
  Escalating corporate debt levels in China or a liquidity shock could lead to a growth slowdown or vice versa, with a severe negative impact on equities and credit.

Geopolitical risks
- Escalation of US/North Korea conflict
  A severe escalation of North Korea tensions or an armed conflict would be highly negative for risk assets.

Security & cybersecurity risks
- Large scale terrorist attacks
  Terrorist attacks in a large city comparable with 9/11 would have a major impact on growth and markets.

Technology sector regulation
Regulation could threaten the business model of technology companies (e.g. license withdrawals for Uber cabs or similar).

Disruption of business models
This risk is particularly real in retail, as online shopping squeezes traditional retailers, and the auto sector, as electric cars impact companies’ profitability.

Other risks
In terms of economic risks, we are watching developments in China and the USA in particular. As these are the two global heavyweights, a worsening of economic imbalances or seriously inadequate policy responses would have stark consequences. If these risks materialized, risk assets such as equities and bonds with credit risk would suffer, while safe-haven assets such as core government bonds, gold and the Swiss franc would soar. Meanwhile, geopolitical risks remain centered on the Middle East and the Korean peninsula.

Regionally, Europe still suffers from some degree of fragmentation risk, which can also affect markets. The GBP would be vulnerable if Brexit negotiations failed. If euroskeptics came to power in Italy, Italian sovereigns as well as bank stocks and bonds would suffer, and broader contagion could not be excluded. Key sector risks concern the retail, automotive and tech sectors. The tech sector in particular has enormous cash piles and contributed very little fiscally in the countries where it generates revenues, so it is vulnerable to regulation. Yet, we expect authorities to be less stringent regarding regulation than they were in the case of bank regulation following the global financial crisis.

<table>
<thead>
<tr>
<th>European instability yet again</th>
</tr>
</thead>
<tbody>
<tr>
<td>An EU/euroskeptic election outcome in Italy, a renewed escalation of tensions in Spain (Catalonia), or a breakdown of EU-UK negotiations (“hard Brexit”) would hurt European risk assets.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Policy error in global trade</th>
</tr>
</thead>
<tbody>
<tr>
<td>A trade war between the USA and China or the cancellation of NAFTA without replacement would severely impact growth and risk assets, especially in emerging markets.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Recession or overheating</th>
</tr>
</thead>
<tbody>
<tr>
<td>A surprise slowdown in China or the USA would lead to a sharp pull-back in risk assets. An overheating of the US economy and an interest rate spike would also have adverse effects.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>High yield sell-off</th>
</tr>
</thead>
<tbody>
<tr>
<td>A Fed interest rate shock or rising defaults could lead to a sharp sell-off in high yield bonds and leveraged loans, a key market risk.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Armed conflict in the Middle East</th>
</tr>
</thead>
<tbody>
<tr>
<td>A further escalation in the Middle East involving the Kurds, Iraq, Turkey, and/or Iran could hit emerging markets and commodities.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Cyberattack with global disruptions</th>
</tr>
</thead>
<tbody>
<tr>
<td>A cyberattack that would disrupt IT services globally would have far-reaching repercussions for financial markets.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Leverage risks</th>
</tr>
</thead>
<tbody>
<tr>
<td>In terms of economic risks, we are watching developments in China and the USA in particular. As these are the two global heavyweights, a worsening of economic imbalances or seriously inadequate policy responses would have stark consequences. If these risks materialized, risk assets such as equities and bonds with credit risk would suffer, while safe-haven assets such as core government bonds, gold and the Swiss franc would soar. Meanwhile, geopolitical risks remain centered on the Middle East and the Korean peninsula.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Regional risks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regionally, Europe still suffers from some degree of fragmentation risk, which can also affect markets. The GBP would be vulnerable if Brexit negotiations failed. If euroskeptics came to power in Italy, Italian sovereigns as well as bank stocks and bonds would suffer, and broader contagion could not be excluded. Key sector risks concern the retail, automotive and tech sectors. The tech sector in particular has enormous cash piles and contributed very little fiscally in the countries where it generates revenues, so it is vulnerable to regulation. Yet, we expect authorities to be less stringent regarding regulation than they were in the case of bank regulation following the global financial crisis.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Pandemic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not on the radar of global markets at the moment, but a major pandemic could disrupt individual businesses (e.g. airlines) or economic growth in general.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Drug (opioid) epidemic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Though on the agenda of the US administration, a further escalation could have an impact on US growth potential.</td>
</tr>
</tbody>
</table>
Adding value through portfolio construction

After a strong financial market year like 2017 and as monetary policy normalization slowly gets under way, many investors feel it is more important than ever to review the fundamental structure of their portfolios going into 2018.

To achieve the original investment objective and satisfy risk tolerance constraints, portfolios should be constructed around a carefully designed strategic asset allocation (SAA). Too often haphazard portfolio construction results in either too much risk compared to the actual risk tolerance or in below-target returns. Taking our systematic SAAs as a starting point has provided stability in returns and controlled risk in the past. In EUR, for example, the annual returns of a balanced (intermediate) risk profile have fluctuated between 3.11% and 10.26%.

Credit Suisse Capital Market Assumptions as a guide to the future
SAAs are built on the basis of long-term expectations of returns, volatilities and correlations across assets. To establish these expectations, we run an extensive annual analysis to update our Capital Market Assumptions (CMA). The CMA cover around 90 assets and allow us to carefully assess how to optimize our SAA across a very broad opportunity set. The key aspect of the CMA for 2018 and beyond is that investors should anticipate lower returns than in the past in practically all assets. This demonstrates that passive investments such as exchange-traded funds that simply replicate indices, may deliver lower results than in the past. Active investment solutions, however, can provide an important means to improve returns.

Key aspects of SAAs
We still find that among all assets, equities should do best. In our view, this justifies relatively high allocations to equities in multi-asset portfolios. Equity investments should be global to benefit from diversification even if in a single year, this may lead to a temporary underperformance against the domestic equity market. Over time, a global equity investment provides for more stable returns.
Alternative investments are an additional source of diversification and should continue to include hedge funds, commodities and real estate, in our view. While hedge funds have represented a dominant portion of alternative investment allocations in the past and will, on balance, continue to do so, real estate provides a consistently attractive source of yield. Across the three major categories of alternative investments, real estate deserves slightly more weight in an SAA, at the expense of commodities and hedge funds. For investors who can tolerate the risk of illiquidity, private assets such as private equity remain a useful addition.

When to hedge currency risk
Currency risk should be thoroughly analyzed in portfolios. We believe that fixed income, hedge funds and real estate should in general be currency-hedged, as currency risk only serves to increase global risk. For equities, the situation is less clear as equities are often correlated with currency movements. Thus, systematic hedging can sometimes actually increase portfolio risk. Moreover, hedging currency risk does not come for free. So the benefits of currency hedging must be seen in relation to the costs of hedging. Implementing a home bias in equity allocations can sometimes be the more cost efficient solution in this context.

A systematic strategic asset allocation can maximize the likelihood of achieving one's investment objectives while keeping risk under control.

Forecast average total returns (per year) over the next 5 years (in %)

<table>
<thead>
<tr>
<th>Equities</th>
<th>Fixed income</th>
<th>Cash</th>
<th>Alternative investments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Developed Asia</td>
<td>8.0</td>
<td>7.0</td>
<td>6.0</td>
</tr>
<tr>
<td>Emerging markets</td>
<td>8.0</td>
<td>7.0</td>
<td>6.0</td>
</tr>
<tr>
<td>Switzerland</td>
<td>8.0</td>
<td>7.0</td>
<td>6.0</td>
</tr>
<tr>
<td>Japan</td>
<td>8.0</td>
<td>7.0</td>
<td>6.0</td>
</tr>
<tr>
<td>US convertible USD</td>
<td>8.0</td>
<td>7.0</td>
<td>6.0</td>
</tr>
<tr>
<td>EM government</td>
<td>8.0</td>
<td>7.0</td>
<td>6.0</td>
</tr>
<tr>
<td>EM high yield</td>
<td>8.0</td>
<td>7.0</td>
<td>6.0</td>
</tr>
<tr>
<td>US corporate direct properties</td>
<td>7.0</td>
<td>6.0</td>
<td>5.0</td>
</tr>
<tr>
<td>US inflation linked</td>
<td>7.0</td>
<td>6.0</td>
<td>5.0</td>
</tr>
<tr>
<td>Aust. govt., long-term</td>
<td>7.0</td>
<td>6.0</td>
<td>5.0</td>
</tr>
<tr>
<td>US government</td>
<td>7.0</td>
<td>6.0</td>
<td>5.0</td>
</tr>
<tr>
<td>Europe government</td>
<td>7.0</td>
<td>6.0</td>
<td>5.0</td>
</tr>
<tr>
<td>AUD</td>
<td>6.0</td>
<td>5.0</td>
<td>4.0</td>
</tr>
<tr>
<td>USD</td>
<td>6.0</td>
<td>5.0</td>
<td>4.0</td>
</tr>
<tr>
<td>GBP</td>
<td>6.0</td>
<td>5.0</td>
<td>4.0</td>
</tr>
<tr>
<td>EUR</td>
<td>6.0</td>
<td>5.0</td>
<td>4.0</td>
</tr>
<tr>
<td>JPY</td>
<td>6.0</td>
<td>5.0</td>
<td>4.0</td>
</tr>
<tr>
<td>CHF</td>
<td>6.0</td>
<td>5.0</td>
<td>4.0</td>
</tr>
<tr>
<td>Private equity</td>
<td>5.0</td>
<td>4.0</td>
<td>3.0</td>
</tr>
<tr>
<td>Eurozone real est. eq.</td>
<td>5.0</td>
<td>4.0</td>
<td>3.0</td>
</tr>
<tr>
<td>Asian real estate eq.</td>
<td>5.0</td>
<td>4.0</td>
<td>3.0</td>
</tr>
<tr>
<td>US real estate eq.</td>
<td>5.0</td>
<td>4.0</td>
<td>3.0</td>
</tr>
<tr>
<td>US direct properties</td>
<td>5.0</td>
<td>4.0</td>
<td>3.0</td>
</tr>
<tr>
<td>Commodities</td>
<td>4.0</td>
<td>3.0</td>
<td>2.0</td>
</tr>
<tr>
<td>Hedge funds (HFRX)</td>
<td>4.0</td>
<td>3.0</td>
<td>2.0</td>
</tr>
<tr>
<td>Gold</td>
<td>4.0</td>
<td>3.0</td>
<td>2.0</td>
</tr>
</tbody>
</table>

Source: Datastream, Credit Suisse
Last data point: September 2017

Projected total return (5Y average)
Every year we highlight our top themes for the year ahead. These annual investment themes are updated according to the House View throughout the year. Investment implementation is ensured with single securities and investment products.

**Theme 1: Emerging market winners**

Emerging market (EM) assets have performed extremely well in 2017. With a supportive growth environment, we expect 2018 to be another good year for EMs. Yet, as for assets in other regions, we think opportunities will likely be best approached through actively managed solutions and focused investments, as we see less upside for broad benchmarks.

- **EM equities:** Our preference is for exposure to EM small caps. The EM rally in 2017 was mainly driven by large caps, and we expect small caps to catch up as fundamentals stay solid. Furthermore, we prefer exposure to the EM consumer given that the improvement in EM growth is largely due to robust domestic demand. For instance, this could be achieved by using the equities that we identified as part of our Supertrend “Angry Societies.”

- **EM carry:** After a strong improvement, we do not see EM external accounts improve further in 2018, which is likely to dampen return prospects for sovereign bonds in hard currencies (HC). EM corporate bonds are a relatively expensive alternative as we expect fundamentals to gradually deteriorate. Local bonds offer interesting yields, but duration might not reflect the potential for inflation re-pricing in high profile countries. However, we have a constructive view on EM currencies, with EM real rates attractive enough to absorb a further increase in major DM rates. Combined with a still high carry for very short maturities, this leads us to favor money market instruments. Our preference goes to the TRY, MXN, ZAR and MYR as they offer attractive valuation, already reflecting domestic risks.
The sustained economic recovery in Europe is positive for peripheral currencies and Eurozone real estate.

Theme 2: Eurozone revival
2017 marked the first wave of a Eurozone revival after the French election. We believe that a second wave will benefit specific European assets and currencies.

- Eurozone real estate: Eurozone real estate benefits from sustained European growth, is underpinned by strong fundamentals and attractive spreads thanks to much higher yields than in EUR fixed income markets. We favor the underlying and listed real estate markets given support from fundamentals and the quality of listed companies’ portfolios. With continued rental and capital growth, company earnings and portfolio net asset values could surprise to the upside. High yields, an ability to pass on inflation and some protection against the impact of EUR strength also support share prices.

- Peripheral currencies (SEK, PLN): We also focus on currencies of countries where monetary policy might soon be tightened and valuations are still attractive. The undervalued SEK is favored, as Sweden’s small open economy benefits from close links to the Eurozone. The PLN can also gain on Poland’s strong trade links with European economies and gradually tighter monetary policy.

- Domestically exposed stocks: We continue to favor companies exposed to the Eurozone economy. We believe that the ongoing recovery in the Eurozone offers further upside for such stocks.

Theme 3: Corporate investment
One of our strongest convictions for 2018 is that corporate investment will finally pick up. Companies have large amounts of cash, but they have been very reserved with capital expenditure, preferring to hoard or redistribute to shareholders for lack of visibility. Now many are being forced to invest in areas like IT security and new production processes. Other companies, threatened by disruption, will have to acquire or merge to survive. The potential repatriation tax holiday for US companies could be an incentive to do so in 2018 rather than later.

- Merger & acquisition (M&A) stocks: We would recommend positioning for a pick-up in M&A activity. M&A tends to increase at this stage of the cycle as companies try to increase growth prospects through acquisitions. We expect this trend to be evident in sectors such as healthcare or telecoms.

- Capex beneficiaries: We also focus on sub-sectors and companies most likely to benefit from the increase in capital spending (capex). Capex beneficiaries are found in infrastructure-related sectors or in business-to-business areas. We therefore have a preference for media and software. The former should be supported by higher advertising spending while the latter benefits from increasing investment from companies across sectors. On the infrastructure side, industrials are best placed to benefit.

- Private equity funds exposed to a capex pick-up: Private equity is one way to gain exposure to the infrastructure theme. Some funds focused on infrastructure and investment would be well suited in this context.
Theme 4: Supertrends equities
Supertrends are our five high-conviction equity themes based on profound and long-term social trends (see our Supertrends Spotlight). Despite the long-term nature of our Supertrends, we see numerous catalysts that should benefit the related stocks in 2018.

- The devastating effects of the autumn hurricanes in the USA and efforts to rebuild are added catalysts for our Supertrend “Infrastructure.”

- Geopolitical tensions and repeated problems with companies’ electronic security support the Security & Defense theme, part of our Supertrend “Angry Societies.”

- Technology is an ever-evolving theme, including topics such as virtual reality and data waste management.

- Our two demographic themes, Silver Economy and Millennials’ Values, tap the two biggest demographic drivers of many sectors and companies, population aging and the “coming of age” of the Millennials as consumers and investors.

Theme 5: Fixed income rainbow
The somewhat unconventional name of this theme reflects the variety of “colors” (fixed or floating, duration, credit risk...) required to successfully invest in bonds in 2018. In the USA, the Federal Reserve’s hiking cycle is entering a somewhat advanced stage, while other central banks start to normalize policy and credit fundamentals are likely to deteriorate in 2018 as corporates re-leverage their balance sheet. This creates an environment where bond investors require active and targeted strategies.

- In USD: Given our benign outlook for USD rates, with longer yields expected to remain anchored, duration is favored in USD. Therefore, a mix of long-dated BBBs, short-dated BBs and selective fallen angel bonds is best, in our view, for a bond portfolio in USD. Investors worried about an acceleration of inflation could also add US investment grade corporate floaters.

- In EUR: Non-financial corporate valuations are excessively tight and insufficient to protect in an environment of ECB policy normalization. Our focus is on financials and in particular subordinated bank and insurance bonds, which should continue to benefit in an environment of sustained Eurozone growth and better bank fundamentals. Investors who are worried about political risks in Spain and Italy may want to focus on bank bonds of other European countries.
Spotlight: Supertrends – Investing for the long term

Supertrends are Credit Suisse’s five high conviction investment themes for equity investors. They build on profound social trends that are shaping economic policy globally and defining new consumer and production needs for years to come. All five Supertrends have had a very strong performance since inception in May 2017, adding value to client portfolios.

Angry Societies – Multipolar World
Builds on government efforts to restore or strengthen middle class prosperity. Focus on:
- National champions
- Security and defense companies
- Emerging market consumers

Infrastructure – Closing the Gap
A global policy priority in public-private partnership after years of underinvestment. Focus on:
- Transport
- Energy and water supply
- Affordable housing

Technology at the Service of Humans
An irreversible trend that is increasingly scrutinized by regulators. Focus on:
- Digitalization
- Virtual and augmented reality
- Artificial intelligence
- Industry 4.0
- Health tech

Silver Economy – Investing for Population Aging
The key demographic trend of the next decade or longer. Focus on:
- Senior lifestyle
- Old-age diseases
- Real estate / Senior housing
- Life insurance / Asset managers

Millennials’ Values
Looking at Millennials’ industry-shaping behavior and preferences. Focus on:
- Sustainable business and investments
- Clean energy
- Digital natives
- Social enterprise and impact investments
- Fun, health and leisure
- Millennial housing

For further information about our Supertrends, please visit www.credit-suisse.com/thematicinvestment
Milestones in 2018

Jan. 22/23 January BoJ meeting Japan

Feb. 03 February Fed chair Janet Yellen’s term expires United States

Mar. 19–23 March 21st Credit Suisse Annual Asian Investment Conference Hong Kong

Apr. 20/21 March Fed meeting with press conference United States

May 08 March ECB meeting Eurozone

June 26/27 April BoJ meeting Japan

No later than 20 May General elections Italy

08 April Bank of Japan’s Governor Haruhiko Kuroda’s term expires Japan

12/13 June Fed meeting with press conference United States

18 March Presidential elections Russia

23–26 January World Economic Forum annual meeting Switzerland

20/21 March ECB Vice President Vitor Constâncio’s term expires Eurozone

08 April ECB Vice President Vitor Constâncio’s term expires Eurozone

08/09 June G7 Summit in Quebec International

31 May ECB Vice President Vitor Constâncio’s term expires Eurozone

14 June ECB meeting Eurozone

22/23 January BoJ meeting Japan

08 April ECB Vice President Vitor Constâncio’s term expires Eurozone

31 May ECB Vice President Vitor Constâncio’s term expires Eurozone

14 June ECB meeting Eurozone
July
- 01 July: General elections, Mexico
- 11/12 July: Nato Summit, Belgium

Aug.
- 30/31 July: BoJ meeting, Japan

Sept.
- 09 September: General elections, Sweden
- Late August: Economic Policy Symposium Jackson Hole, United States
- 25/26 September: Fed meeting with press conference, United States
- 13 September: ECB meeting, Eurozone
- 12-14 October: Annual meeting of the International Monetary Fund and the World Bank Group, Indonesia

Oct.
- 07-28 October: Annual meeting of the International Monetary Fund and the World Bank Group, India, Indonesia
- 12-14 October: Annual meeting of the International Monetary Fund and the World Bank Group, India, Indonesia
- 30/31 October: BoJ meeting, Japan

Nov.
- 06 November: Midterm elections, United States
- 06 November: Midterm elections, United States
- 13 December: ECB meeting, Eurozone

Dec.
- 18/19 December: Fed meeting with press conference, United States
- 30/31 December: Fed meeting with press conference, United States

Additional events:
- July: Nato Summit, Belgium
- Aug.: Economic Policy Symposium Jackson Hole, United States
- Sept.: ECB meeting, Eurozone
- Oct.: Annual meeting of the International Monetary Fund and the World Bank Group, Indonesia
- Nov.: Midterm elections, United States
- Dec.: Fed meeting with press conference, United States
Disclaimer

Glossary
For a glossary of the terms mentioned in this report, please refer to the following Internet link: https://investment.credit-suisse.com/wglossary

Risk warning
This report may include information on investments that involve special risks. You should seek the advice of your independent financial advisor prior to taking any investment decisions based on this report or for any necessary explanation of its contents. Further information is also available in the information brochure "Special Risks in Securities Trading" available from the Swiss Bankers Association at http://www.swissbanking.org/en/home/publikationen-link/shop_popup.htm?ID=11308

For a discussion of the risks of investing in the securities mentioned in this report, please refer to the following Internet link: https://research.credit-suisse.com/riskdisclosure

The price, value of and income from any of the securities or financial instruments mentioned in this report can fall as well as rise. The value of securities and financial instruments is affected by changes in spot or forward interest and exchange rates, economic indicators, the financial standing of any issuer or reference issuer, etc., that may have a positive or adverse effect on the income from or price of such securities or financial instruments. By purchasing securities or financial instruments, you may incur a loss or a loss in excess of the principal as a result of fluctuations in market prices or other financial indices, etc. Investors in securities such as ADRs, the values of which are influenced by currency volatility, effectively assume this risk.

Investment principal on bonds can be eroded depending on sale price, market price or changes in redemption amounts. Care is required when investing in such instruments.

Commission rates for brokerage transactions will be as per the rates agreed between CS and the investor. For transactions conducted on a principal-to-principal basis between CS and the investor, the purchase or sale price will be the total consideration. Transactions conducted on a principal-to-principal basis, including over-the-counter derivative transactions, will be quoted as a purchase/bid price or sell/offer price, in which case a difference or spread may exist. Charges in relation to transactions will be agreed upon prior to transactions, in line with relevant laws and regulations. Please read the pre-contract documentation, etc., carefully for an explanation of risks and commissions, etc., of the relevant securities or financial instruments prior to purchase.

Structured securities are complex instruments, typically involve a high degree of risk and are intended for sale only to sophisticated investors who are capable of understanding and assuming the risks involved. The market value of any structured security may be affected by changes in economic, financial and political factors (including, but not limited to, spot and forward interest and exchange rates), time to maturity, market conditions and volatility, and the credit quality of any issuer or reference issuer, etc., that may have a positive or adverse effect on the income from or price of such structured securities or financial instruments. By purchasing structured securities, you may incur a loss or a loss in excess of the principal as a result of fluctuations in market prices or other financial indices, etc. Investors in structured securities such as ADRs, the values of which are influenced by currency volatility, effectively assume this risk.

Investment principal on bonds can be eroded depending on sale price, market price or changes in redemption amounts. Care is required when investing in such instruments.

Alternative investments
Hedge funds are not subject to the numerous investor protection regulations that apply to regulated authorized collective investments and hedge fund managers are largely unregulated. Hedge funds are not limited to any particular investment discipline or trading strategy, and seek to profit in all kinds of markets by using leverage, derivatives, and complex speculative investment strategies that may increase the risk of investment loss.

Commodity transactions carry a high degree of risk and may not be suitable for many private investors. The extent of loss due to market movements can be substantial or even result in a total loss. Investors in real estate are exposed to liquidity, foreign currency and other risks, including cyclical risk, rental and local market risk as well as environmental risk, and changes to the legal situation. Private equity is private equity capital investment in companies that are not traded publicly (i.e., are not listed on a stock exchange). Private equity investments are generally illiquid and are seen as a long-term investment. Private equity investments, including the investment opportunity described herein, may include the following additional risks: (i) loss of all or a substantial portion of the investor’s investment, (ii) investment managers may have incentives to make investments that are riskier or more speculative due to performance-based compensation, (iii) lack of liquidity as there may be no secondary market, (iv) volatility of returns, (v) restrictions on transfer, (vi) potential lack of diversification, (vii) high fees and expenses, (viii) little or no requirement to provide periodic pricing and (ix) complex tax structures and delays in distributing important tax information to investors.

Emerging markets
Where this report relates to emerging markets, you should be aware that there are uncertainties and risks associated with investments and transactions in various types of investments of, or related or linked to, issuers and obligations, incorporated, based or principally engaged in business in emerging markets countries. Investments related to emerging markets countries may be considered speculative, and their prices will be much more volatile than those in the more developed countries of the world. Investments in emerging markets investments should be made only by sophisticated investors or experienced professionals who have independent knowledge of the relevant markets, are able to consider and weigh the various risks presented by such investments, and have the financial resources necessary to bear the substantial risk of loss of investment in such investments. It is your responsibility to manage the risks which arise as a result of investing in emerging markets investments and the allocation of assets in your portfolio. You should seek advice from your own advisers with regard to the various risks and factors to be considered when investing in an emerging markets investment.

Past performance is not an indicator of future performance. Past performance can be affected by commissions, fees or other charges as well as exchange rate fluctuations.

Sensitivities
Sensitivity analysis is understood as the change in the market value (e.g. price) of a financial instrument for a given change in a risk factor and/or model assumption. Specifically, the market value of any financial instrument may be affected by changes in economic, financial and political factors (including, but not limited to, spot and forward interest and exchange rates), time to maturity, market conditions and volatility, and the credit quality of any issuer or reference issuer.

Financial market risks
Historical returns and financial market scenarios are no guarantee of future performance. The price and value of investments mentioned and any income that might accrue could fall or rise or fluctuate. Past performance is not a guide to future performance. If an investment is denominated in a currency other than your base currency, changes in the rate of exchange may have an adverse effect on value, price or income. You should consult with such advisor(s) as you consider necessary to assist you in making these determinations.

Investments may have no public market or only a restricted secondary market. Where a secondary market exists, it is not possible to predict the price at which investments will trade in the market or whether such market will be liquid or illiquid.
Interest rate and credit risks

The retention of value of a bond is dependent on the creditworthiness of the Issuer and/or Guarantor (as applicable), which may change over the term of the bond. In the event of default by the Issuer and/or Guarantor of the bond, the bond or any income derived from it is not guaranteed and you may get back none of, or less than, what was originally invested.

Global disclaimer / important information

This report is not directed to, or intended for distribution to or use by, any person or entity who is a citizen or resident of or located in any locality, state, country or other jurisdiction where such distribution, publication, availability or use would be contrary to law or regulation or which would subject CS to any registration or licensing requirement within such jurisdiction.

The term “Credit Suisse” is the global marketing brand name for the investment banking, asset management and private banking services offered by Credit Suisse Group subsidiaries and affiliates worldwide. Each legal entity in Credit Suisse Group is subject to distinct regulatory requirements and certain products and services may not be available in all jurisdictions or to all client types. There is no intention to offer products and services in countries or jurisdictions where such offer would be unlawful under the relevant domestic law.

References in this report to CS include Credit Suisse AG, the Swiss bank, its subsidiaries and affiliates. For more information on our structure, please use the following link:

http://www.credit-suisse.com/who_we_are/en/

NO DISTRIBUTION, SOLICITATION, OR ADVICE:

This report is provided for information and illustrative purposes and is intended for your use only. It is not a solicitation, offer or recommendation to buy or sell any security or other financial instrument. Any information including facts, opinions or quotations, may be condensed or summarized and is expressed as of the date of writing. The information contained in this report for any security or instrument as a general reference only and is not intended to constitute any form of regulated financial advice, legal, tax or other regulated service. It does not take into account the financial objectives, situation or needs of any persons, which are necessary considerations before making any investment decision. You should seek the advice of your independent financial advisor prior to taking any investment decisions based on this report or for any necessary explanation of its contents. This report is intended only to provide observations and views of CS at the date of writing, regardless of the date on which you receive or access the information. Observations and views contained in this report may be different from those expressed by other Departments at CS and may change at any time without notice and without obligation to update. CS is under no obligation to ensure that all figures are unaudited. All valuations mentioned herein are unaudited service. It does not take into account the financial objectives, situation or needs of any persons, which are necessary considerations before making any investment decision. You should seek the advice of your independent financial advisor prior to taking any investment decisions based on this report or for any necessary explanation of its contents. This report is intended only to provide observations and views of CS at the date of writing, regardless of the date on which you receive or access the information. Observations and views contained in this report may be different from those expressed by other Departments at CS and may change at any time without notice and without obligation to update. CS is under no obligation to ensure that all figures are unaudited. All valuations mentioned herein are unaudited. This report has been provided as a general market commentary only and is expressed as of the date of writing. The information contained in this report or your investments should be made directly to your local relationship manager or other advisers.

FORECASTS & ESTIMATES:

Past performance should not be taken as an indication or guarantee of future performance, and no representation or warranty, express or implied, is made regarding future performance. To the extent that this report contains statements about future performance, such statements are forward looking and subject to a number of risks and uncertainties. Unless indicated to the contrary, all figures are unaudited. All valuations mentioned herein are subject to CS valuation policies and procedures. CONFLICTS: CS reserves the right to remedy any errors that may be present in this report. Credit Suisse, its affiliates and/or their employees may have a position or holding, or other material interest or effect transactions in any securities mentioned or options thereon, or other investments related thereto and from time to time may add to or dispose of such investments. CS may be providing, or have provided within the previous 12 months, significant advice or investment services in relation to the investments listed in this report or a related investment to any company or issuer mentioned. Some investments referred to in this report will be offered by a single entity or an associate of CS or CS may be the only market maker in such investments. CS is involved in many businesses that relate to companies mentioned in this report. These businesses include specialized trading, risk arbitrage, market making, and other proprietary trading. TAX: This material does not contain all of the information that you may wish to consider and it does not take into account your individual situation or circumstances. Nothing in this report constitutes investment, legal, accounting or tax advice. CS does not advise on the tax consequences of investments and you are advised to contact an independent tax advisor to understand the implications of any investment specific to your personal financial situation. The levels and basis of taxation are dependent on individual circumstances and are subject to change. SOURCES: Information and opinions presented in this report have been obtained or derived from sources which in the opinion of CS are reliable, but CS makes no representation as to their accuracy or completeness. CS accepts no liability for a loss arising from the use of this report. WEBSTIES: This report may provide the addresses of, or contain hyperlinks to, websites. Except to the extent to which the report refers to website material of CS, CS has not reviewed the linked site and takes no responsibility for the content contained therein. Such address or hyperlink (including addresses or hyperlinks to CS’s own website material) is provided solely for your convenience and information and the content of the linked site does not in any way form part of this report. Accessing such website or following such link through this report or CS’s website shall be at your own risk.

Distribution

Except as otherwise specified herein, this report is distributed by Credit Suisse AG, a Swiss bank, authorized and regulated by the Swiss Financial Market Supervisory Authority. Austria: This material is distributed in Australia by Credit Suisse AG, Sydney Branch solely for information purposes only to persons who are “wholesale clients” (as defined by section 761G(7) of the Corporations Act. Credit Suisse AG, Sydney Branch is regulated by the Australian Prudential Regulation Authority as an Australian branch of a foreign authorised deposit-taking institution (“Foreign ADI”). As a Foreign ADI, deposits made with Credit Suisse are not covered by the provisions of Division 2 of the Banking Act 1959 (Cth.) entitled “Protection of Depositors” and accordingly, deposits with Credit Suisse do not have the benefit of those depositor protection provisions of the Banking Act. Bahrain: This report is distributed by Credit Suisse AG, Bahrain Branch, authorized and regulated by the Central Bank of Bahrain (CBB), is located at Level 22, East Tower, Bahrain World Trade Centre, Manama, Kingdom of Bahrain. Brazil: The information contained herein is for informational purposes only and is not, and under no circumstances is to be construed as, a prospectus, an advertisement, a public offering, an offer to sell the securities described herein or a solicitation of an offer to buy the securities described herein in Brazil. Any public offer or sale of securities will be made only if applicable registration in the Brazilian Securities Commission is obtained. No invitation to offer, or offer for, or sale of, any investment will be deemed to the public in Brazil or by any means would be deemed public offering of securities in Brazil. Under no circumstances is the information contained herein to be construed as investment advice. Brazilian Securities Commission has not reviewed the material herein. UAE/Dubai: This information is being distributed by Credit Suisse AG (DFIC Branch), duly licensed and regulated by the Dubai Financial Services Authority (“DFSA”). Related financial services or products are only made available to Professional Clients or Market Counterparties, as defined by the DFSA, and are not intended for any other persons. Credit Suisse AG (DFIC Branch) is located on Level 9 East, The Gate Building, DFIC, Dubai, United Arab Emirates. France: This report is distributed by Credit Suisse (Luxembourg) S.A., Succursale en France,., authorized by the Autorité de Contrôle Prudentiel et de Résolution (ACPR) as an investment service provider. Credit Suisse (Luxembourg) S.A., Succursale en France, is supervised and regulated by the Autorité de Contrôle Prudentiel et de Résolution and the Autorité des Marchés Financiers. Germany: This report is distributed by Credit Suisse (Deutschland) AG which is authorized and regulated by the Bundesanstalt für Finanzdienstleistungsaufsicht (BaFin) Guernsey: This report is distributed by Credit Suisse AG Guernsey Branch, a branch of Credit Suisse AG (incorporated in the Canton of Zurich), with its place of business at Helvetia Court, Les Echelons, South Esplanade, St Peter Port, Guernsey. Credit Suisse AG Guernsey Branch is wholly owned by Credit Suisse AG and is regulated by the Guernsey Financial Services Commission. Copies of the latest audited accounts are available on request. Hong Kong: This report is issued in Hong Kong by Credit Suisse AG Hong Kong Branch, an Authorized Institution regulated by the Hong Kong Monetary Authority and a Registered Institution regulated by the Securities and Futures Commission, and was prepared in compliance with section 16 of
Disclaimer

for investment purposes only and in Russia it shall be exclusively used by recipients, who are Qualified Investors as defined by the applicable Russian legislation. Настоящий документ предоставлен Вам исключительно для информационных целей и только на территории России, исключительно для использования квалифицированными инвесторами, признанными таковыми в силу или в порядке, определенном применимым российским законодательством.

Настоящий документ подготовлен компанией CREDIT SUISSE AG и (или) ее аффилированными лицами (далее по тексту – “CS”) с максимальной степенью тщательности и исходя из имеющей у него информации и мнений. При этом CS не дает гарантий относительно его содержания и полноты и не несет ответственности за убытки, которые могут возникнуть в результате использования представленной информации. Мнения, выраженные в настоящем документе, принадлежат CS, относятся к моменту написания настоящего документа и могут быть изменены в любое время без предварительного уведомления. Если не указано иное, количественные данные, содержащиеся в настоящем материале, не проходили процедуру аудиторской проверки. Настоящий документ предоставляется исключительно в информационных целях и лишь для использования получателем. Настоящий документ не является предложением или рекомендацией купить или продать финансовые инструменты или банковские услуги и не освобождает получателя от необходимости делать собственные выводы. Получателю особенно рекомендуется убедиться, что представленная информация соответствует его обстоятельствам с точки зрения юридических, нормативно-правовых, налоговых и прочих последствий (если необходимо — с привлечением профессиональных консультантов). Настоящий документ не может полностью или частично воспроизводиться без предварительного письменного согласия CS. Настоящий документ не предназначен для лиц, которые в силу своего гражданства или места проживания не могут иметь доступ к указанной в нем информации в соответствии с применимым законодательством. Настоящий документ не является рекомендацией для лиц, зарегистрированных в США, желающих инвестировать на территории США, а также лиц, являющихся инвесторами, которые находятся на территории США или их аффилированными лицами (далее по тексту – “CS”). Авторские права © 2017 принадлежат Credit Suisse Group AG и (или) ее аффилированным лицам. Авторские права защищены. Настоящее сообщение (документ) подготовлено Акционерным обществом “Банк Кредит Свисс (Москва)” (далее “Банк”), кредитной организацией и профессиональным участником рынка ценных бумаг, лицензированным Центральным Банком Российской Федерации, и содержит информацию о предложениях и (или) услугах материнской компании Банка (Кредит Свисс AG) и (или) ее аффилированных лиц. Настоящее сообщение (документ) предоставлено Вам исключительно для информационных целей, не является и не содержит рекомендации купить или продать какие-либо ценные бумаги, производные или иные финансовые инструменты, признанные таковыми в силу или в порядке, определенном применимым российским законодательством. Настоящее сообщение (документ) предназначено для использования квалифицированными инвесторами, признанными таковыми в силу или в порядке, определенном применимым российским законодательством. Настоящее сообщение (документ) адресовано и предназначено исключительно для квалифицированных инвесторов, признанных таковыми в силу или в порядке, определенном применимым российским законодательством. Настоящее сообщение (документ) предназначено для использования квалифицированными инвесторами, признанными таковыми в силу или в порядке, определенном применимым российским законодательством.

the “Code of Conduct for Persons Licensed by or Registered with the Securities and Futures Commission. The contents of this material have not been reviewed by any regulatory authority in Hong Kong. You are advised to exercise caution in relation to any offer. If you are in any doubt about any of the contents of this material, you should obtain independent professional advice. No one may have issued or had in its possession for the purposes of issue, or issue or have in its possession for the purposes of issue, whether in Hong Kong or elsewhere, any advertisement, invitation or material relating to this product, which is directed at, or the contents of which are likely to be accessed or read by, the public of Hong Kong (except if permitted to do so under the securities laws of Hong Kong) other than where this product is or is intended to be distributed of only to persons outside Hong Kong or only to “professional investors” as defined in the Securities and Futures Ordinance (Cap. 571) of Hong Kong and any rules made thereunder. India: This report is distributed by Credit Suisse Securities (India) Private Limited (CIN no. U67120MH1996PTC104392) regulated by the Securities and Exchange Board of India as Research Analyst (registration no. INH 000001030), as Portfolio Manager (registration no. INP 000002478) and as Stock Broker (registration no. INB 230970637; INFS 230970637; INBE 010970631; INF 010970631), having registered address at 9th Floor, Ceejay House, Dr.A.B. Road, Worli, Mumbai - 18, India, T+91-22 6777 3777. Italy: This report is distributed in Italy by Credit Suisse (Italy) S.p.a., a bank incorporated and registered under Italian law subject to the supervision and control of Banca d’Italia and CONSOB, and also distributed by Credit Suisse AG, a Swiss bank authorized to provide banking and financial services in Italy. Financial instruments mentioned in this document could be considered complex products and therefore may not be suitable for retail clients. This document is distributed by CREDIT SUISSE FINANCIAL SERVICES (ISRAEL) LTD, authorized and regulated by the Israel Securities Authority (“the ISA”).Lebanon: This report is distributed by Credit Suisse (Lebanon) Financial SAL (“CSFL”), a financial institution incorporated in Lebanon and regulated by the Central Bank of Lebanon (“CBL”) with a financial institution license No. IN 4320. Credit Suisse (Lebanon) Financial SAL is subject to the CBL’s laws and regulations as well as the laws and decisions of the Capital Markets Authority of Lebanon (“CMA”). CSFL is a subsidiary of Credit Suisse AG and part of the Credit Suisse Group (CS). CMA does not accept any responsibility for the content of the information included in this report, including the accuracy or completeness of such information. The liability for the content of this report lies with the issuer, its directors and other persons, such as experts, whose opinions are included in the report with their consent. The CMA has also not assessed the suitability of the investment for any particular investor or type of investor. Investments in financial markets may involve a high degree of complexity and risk and may not be suitable for all investors. The suitability of CSFL’s products with respect to this investment will be undertaken based on information that the investor would have provided to CSFL and in accordance with Credit Suisse internal policies and processes. It is understood that the English language will be used in all communication and documentation provided by CS and/ or CSFL. By accepting to invest in the product, the investor confirms that he has no objection to the use of the English language. Luxembourg: This report is distributed by Credit Suisse (Luxembourg) S.A., a Luxembourg bank, authorized and regulated by the Commission de Surveillance du Secteur Financier (CSSF). Qatar: This information has been distributed by Credit Suisse (Qatar) L.L.C., which is duly authorized and regulated by the Qatar Financial Centre Regulatory Authority (QFCRA) under QFC License No. 00005. All related financial products or services will only be available to Business Customers or Market Counterparties (as defined by the QFCRA), including individuals, who have opted to be classified as a Business Customer, with net assets in excess of QR 4 million, and who have sufficient financial knowledge, experience and understanding to participate in such products and/or services. Therefore this information must not be delivered to, or relied on by, any other type of individual. Portugal: This marketing material is distributed in Portugal by Credit Suisse (Luxembourg) S.A. - Sucursal Portugal, who is an investment service provider authorized and regulated by the Comissão do Mercado dos Valores Mobiliários (the “CMVM”), and relates to the service of discretionary portfolio management to be rendered by Credit Suisse (Luxembourg) S.A., who is an investments service provider authorized and regulated by the Commission de Surveillance du Secteur Financier (the “CSSF”), in Luxembourg, Russia: This document is provided to you.
if you are identified as an institutional investor, accredited investor, expert investor or overseas investor. Credit Suisse AG, Singapore Branch, is exempted from complying with any part of this document. Singapore recipients should contact Credit Suisse AG, Singapore Branch for any matters arising from, or in connection with, this material. Spain: This report is distributed in Spain by Credit Suisse AG, Sucursal en España, legal entity registered at Comisión Nacional del Mercado de Valores. United Kingdom: This material is issued by Credit Suisse (UK). Credit Suisse (UK) Limited, is authorized by the Prudential Regulation Authority and regulated by the Financial Conduct Authority and the Prudential Regulation Authority. The protections made available by the Financial Conduct Authority and/or the Prudential Regulation Authority for retail clients do not apply to investments or services provided by a person outside the UK, nor will the Financial Services Compensation Scheme be available if the issuer of the investment fails to meet its obligations. To the extent communicated in the United Kingdom ("UK") or capable of having an effect in the UK, this document constitutes a financial promotion which has been approved by Credit Suisse (UK) Limited which is authorized by the Prudential Regulation Authority and regulated by the Financial Conduct Authority and the Prudential Regulation Authority for the conduct of investment business in the UK. The registered address of Credit Suisse (UK) Limited is Five Cabot Square, London, E14 4QR. Please note that the rules under the UK’s Financial Services and Markets Act 2000 relating to the protection of retail clients will not be applicable to you and that any potential compensation made available to “eligible claimants” under the UK’s Financial Services Compensation Scheme will also not be available to you. Tax treatment depends on the individual circumstances of each client and may be subject to changes in future.

For other EU Member State residents: This material is approved by Credit Suisse AG, Branch London, a credit institution licensed and regulated by the Financial Conduct Authority and/or the Prudential Regulation Authority. The protections made available by the Financial Conduct Authority and/or the Prudential Regulation Authority for retail clients do not apply to investments or services provided by a person outside the UK, nor will the Financial Services Compensation Scheme be available if the issuer of the investment fails to meet its obligations. To the extent communicated in the United Kingdom ("UK") or capable of having an effect in the UK, this document constitutes a financial promotion which has been approved by Credit Suisse (UK) Limited which is authorized by the Prudential Regulation Authority and regulated by the Financial Conduct Authority and the Prudential Regulation Authority for the conduct of investment business in the UK. The registered address of Credit Suisse (UK) Limited is Five Cabot Square, London, E14 4QR. Please note that the rules under the UK’s Financial Services and Markets Act 2000 relating to the protection of retail clients will not be applicable to you and that any potential compensation made available to “eligible claimants” under the UK’s Financial Services Compensation Scheme will also not be available to you. Tax treatment depends on the individual circumstances of each client and may be subject to changes in future.

This report may not be reproduced in whole or in part, without the written permission of Credit Suisse. Copyright © 2017 Credit Suisse Group AG and/or its affiliates. All rights reserved.