

Global risk radar

Are you prepared? Risk scenarios to watch

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This publication series helps investors identify and assess global financial market risks and their investment implications.

At a glance

- In a May CIO report *Volatility is Back. Are you prepared?*, we highlighted that we expected the equity bull market to continue, but the environment was such that risks needed to be carefully managed. This proved prescient.
- As we look to the months ahead, we maintain a positive view on the global economy and corporate earnings. But a number of key risks are on our radar – including a China slowdown, an oil supply shock, rapid US Federal Reserve rate hikes and a global trade war.
- In this report we provide a view on which assets are most vulnerable in our risk scenarios, and which others could prove relatively immune.
- Investors can use our analysis to inform two potential courses of action: 1) review portfolios for potential vulnerabilities across a range of scenarios and implement strategies to reduce them (Chapter A); and 2) implement additional precautions against specific risk scenarios of particular concern (Chapter B).



Source: iStock

Were you prepared?

In our May report Volatility is Back. Are you prepared?, we stated that, with economic and earnings growth strong, the bull market in equities was likely to continue, but in an uncertain economic and political environment investors should ensure they carefully manage portfolio risks. Specifically, we advised them to consider:

- 1. Adding alternative sources of return and diversification beyond classic equity and bond indexes, such as hedge funds and smart beta.
- 2. Shifting sources of income away from risky credit and excess foreignexchange exposure by diversifying yield exposure, seeking high quality dividend stocks and extending portfolio duration.
- 3. Diversifying sector and country risks by diversifying globally.
- 4. For those investors who can use options, reducing portfolio vulnerability to equity drawdowns through put options or systematic hedging.
- 5. Investing over the long term in assets that can deliver returns throughout and beyond the current market cycle, such as companies exposed to secular trends, private market investments and firms with good or improving sustainability standards.

Related reports:

- UBS Global Risk Radar: "From trade talk to action," 19 July 2018
- Global financial markets: "Volatility is back. Are you prepared? Mid-year review," 02 July 2018
- UBS Global Risk Radar: "Look beyond the noise," 05 June 2018
- UBS House View Letter: "Volatility is back. Are you prepared?," 24 May 2018

Since then global equities have risen, but the ride has been far from easy:

- May saw the biggest one-day sell off in Italian bonds in more than 25 years, on concerns about populist policies.
- In June came the worst monthly performance for the Chinese yuan since 1994, and Chinese equities entered a bear market, linked to heightened concerns about the Chinese economy and trade tariffs.
- July was tumultuous for individual stocks in the tech sector. Although the NASDAQ ended the month up, it was easy to be caught off guard in individual stocks: Facebook, Tesla and Netflix all ended the month down by more than 10%.
- And in August concerns surfaced about emerging market vulnerabilities, with the Turkish lira returning -20% on the month, the Argentinian peso -11%, the Brazilian real -8% and the Russian ruble -7%.

Careful risk management has been key to avoiding portfolio drawdowns:

- Investors too heavily concentrated in individual markets have suffered highly variable performance. Of the 95 global equity markets tracked by Bloomberg, 52 have delivered negative total returns since May. Some major markets are down substantially. Chinese equities are down by 10%, stocks in Hong Kong by 5%, Singapore is off 7% and Italy has fallen 13%.
- The risks of chasing yield in risky foreign currencies were also laid bare. Turkey, South Africa and Argentina offer some of the highest government bond yields in the world, yet returns since May have been negative (-30%, -13% and -20%, respectively), with each country facing an overseas funding shortfall in an environment of rising US interest rates and a strong US dollar.

Recent months have also shown that seeking alternative sources of return and investing in longer-term assets can benefit one's portfolio:

• The HFRI hedge fund index is up 1% since the end of April, providing a useful source of uncorrelated return to equity-bond portfolios.

Are you prepared?

As we look to the months ahead, we have a positive view on the global economy and corporate earnings:

- Global economic growth remains supportive. In spite of a mounting trade spat between the US and China, we expect global growth this year, at 3.9%, to match last year's, which itself was the best for the global economy in six years. We expect this figure to be reached next year as well.
- The business cycle has room to run. The cycle has been long, but the economy does not appear to be running out of steam.
 Inflation remains low, commodity prices are contained, wage growth is muted, and labor participation rates and capacity utilization have scope to expand.
- Corporate earnings growth is strong. We estimate that companies can deliver 10-15% earnings growth globally this year and next thanks to good economic growth and robust margins.

And we still believe that investors should maintain a strategic allocation to equities:

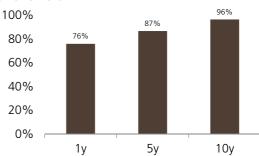
- Valuations are not high. Although some equity markets are at all-time highs in price terms, valuations are not high. The price-to-earnings ratio of global equities is 16.8x, compared to a 30-year average of 18.3x.
- Investing in equities is the prudent call for the long run. Over a longer-term horizon, the probability of earning positive equity market returns is high. Using data since 1928, investors with a 10-year time horizon have earned a positive return on the S&P 500 on 95% of occasions (see Fig. 1). Compounded since 1928, equities have delivered around 200x greater returns than cash, and more than 50x greater than bonds.

But a number of key risks are on our radar:

- Escalating trade tensions. What started with tariffs on solar panels and washing machines now has the potential to affect much broader segments of financial markets and the global economy. The worsening of the US-China relationship is at the forefront of global trade tensions. We expect the US to impose tariffs on an additional USD 200bn of imports from China. The tail risk is that a tit-for-tat spiral escalates into a situation damaging to the Chinese and US economies both. More countries would be hurt via disrupted global supply chains.
- An accelerated Fed hiking cycle. Historically, recessions and cyclical bear markets were often preceded by tighter financial conditions in the US. We expect the Fed to increase rates in a gradual fashion. But rising wage pressures due to a tight labor market could force the Fed to accelerate the pace of monetary tightening. This would cause challenges for the US economy, but also for selected emerging markets with a great deal of USDdenominated debt (e.g. Turkey, South Africa, etc).
- An economic slowdown in China. The Chinese economy is not just challenged by rising trade tensions. A weaker economy, the buildup of debt and a depreciating currency increase the risk of rapid capital outflows. While in our base case we expect China's real GDP growth to slow in a healthy fashion (to 6.2% next year), we assign a 10-20% probability to a sharp economic slowdown that causes market fears similar to those in 2015.

Fig. 1: Long-term investment is highly likely to pay off

S&P500 % of occurrences of positive return for different time horizons

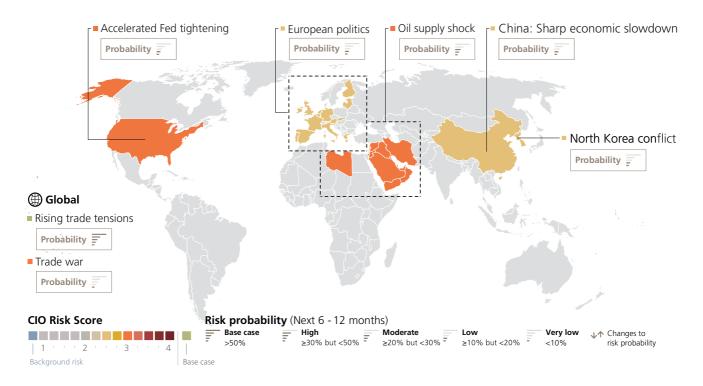


Source: Shiller, Damodaran, monthly data since 1933, trailing since 1943

 An oil supply shock. We expect oil prices (Brent) to rise to USD 85/bbl over the next 3-12 months. Given heightened political uncertainty in the Middle East, the risk of a larger reduction in Iranian oil production due to US economic sanctions and potential supply constraints in other countries, however, oil prices could temporarily go as high as USD 120/bbl.

In section B we cover each of these and other risks (see Fig. 2) on a standalone basis. But it is worth noting that, historically, it is often a combination of adverse developments happening simultaneously that cause a market downturn. In 2000 and 2008, the Fed's policy rates not only peaked but the new economy bubble burst and the credit-fueled subprime mortgage market broke down, respectively. So focusing on several risks rather than just one is critical for investment decision-making as the economic cycle continues to mature.

Fig. 2: Global risk map



Source: UBS, as of August 2018. Note: The CIO risk score is a composite of four risk "dimensions": probability (the likelihood of occurrence within the next six to 12 months), urgency (how soon the event would likely take place), geographic scope (the extent of regional/global financial and economic contagion), and expected market impact (by how much the returns on the affected asset classes would deviate from the baseline). Each dimension score can take a value between 1 and 4, with 4 being the highest risk level; the overall CIO risk score is the average of the scores for the four risk dimensions.

To prepare for this environment, investors can undertake two courses of action:

A. Review portfolios for vulnerabilities across a range of scenarios by asking themselves five key questions, and taking action.

Table 1: Investor questionnaire

	What could happen in our risk cases?	How to prepare
1. Are you relying too much on market performance?	Investors relying on traditional equity and bond indices would see higher portfolio volatility in the event of an accelerated Fed hiking cycle, when both equities and credit would be at risk of selling off together.	Allocating part of your portfolio to hedge funds can help diversify portfolio returns and reduce volatility. Additionally, we think they have the potential to perform well in our base case.
2. Is your yield worth the risk?	Yield-seeking investors should be cautious in an environment of heightened risk. EM credit, Asian high yield, and Asian local currency bonds would likely suffer in the event of a Chinese economic slowdown, while US high yield credit and EM credit would be vulnerable to an accelerated Fed hiking cycle.	Diversified yield-focused portfolios can provide attractive returns to yield-seeking investors, while limiting specific risks. Investors can also consider investing in safer but longer-duration bonds, which may rally in the event of risks materialising. We also see dividend investing as an attractive option in the Eurozone, UK, and
3. Is your portfolio too familiar?	No individual region or country is safe from all the potential risks we face. The US market could be most exposed to Fed rate hikes , the Eurozone is vulnerable to an oil supply shock , while EM and Asia could be at risk from escalating trade tensions or a China economic slowdown .	Investors should look to ensure that their equity portfolios are diversified globally to reduce exposure to any individual risk, while remaining positioned for portfolio growth. Selected equity themes could help boost portfolio performance in our base case as well as performing well in our risk scenarios.
4. Have you considered protecting your profits?	After a record breaking bull market, global equities are vulnerable to a China economic slowdown and to an accelerated Fed hiking cycle. Stocks would also likely see higher volatility in the event of an oil supply shock or amid escalating trade tensions.	Investors can reduce exposure to equity market downside, while limiting insurance costs, by implementing systematic hedging.
5. Are you prepared to look beyond the current noise in the markets?	Keeping a longer-term mindset can reduce the temptation for investors to sell during periods of volatility. Panic selling is a significant driver of long-term underperformance of private investors relative to market benchmarks.	Investing in longer-term investment themes, sustainable investing, and private equity can allow investors to look beyond the short-term risks associated with these scenarios and benefit from secular trends or illiquidity premia.

B. Implement additional precautions against specific scenarios

by reducing exposure to potentially vulnerable assets while adding to those that could prove better insulated. While our tactical asset allocation takes into account the full spectrum of possible scenario outcomes and their probabilities, aiming to find the right balance between taking risk and being protected against larger market downturns, section B provides a list of assets particularly exposed to any given scenario on a standalone basis. Investors especially worried about one or the other scenario can use this analysis as guidance for rebalancing their portfolios or adding scenario hedges.

A. Reviewing portfolios for vulnerabilities

In an environment of decent growth but potential shocks, we believe investors need to position portfolios for long-term growth while managing risks carefully. Investors should ask themselves five key questions, consider vulnerabilities that may be exposed in our risk scenarios and take action.

1. Are you relying too much on market performance?

Investors relying on traditional equity and bond indexes could see higher portfolio volatility in the event of an accelerated Fed hiking cycle, when we see a risk that both equities and credit could sell off together.

While we believe that a negative correlation between bonds and equities will persist over the medium to long term, jumps in correlation means that strategies that are less correlated to moves in equities and bonds become important for reducing short-term portfolio volatility.

Investment ideas

Hedge funds could improve portfolio stability by offering returns that may be less correlated if credit and equities start to move up and down together. Hedge funds have typically outperformed other asset classes in a rising US rate environment, with equity hedge, event-driven, and relative-value in particular outperforming other strategies. For more, see our regular CIO Hedge Fund Monthly Extended.

2. Is your yield worth the risk?

Yield-seeking investors should be cautious in an environment of heightened risk. Our analysis shows that EM credit, Asian high yield, and Asian local currency bonds would likely suffer in the event of a China economic slowdown, while US high yield credit and EM credit would be vulnerable to an accelerated Fed hiking cycle.

Investment ideas

Diversified yield-focused portfolios

Concentrated positions in high yield bonds or similarly high-yielding assets are considerably more risky than a broadly diversified portfolio with a focus on yield. **Longer-duration bonds** Investors may also wish to opportunistically extend the duration of their bond holdings (while increasing credit quality) to provide a comparable yield with lower portfolio risk. US dollar high grade bonds with longer durations offer potentially attractive returns with the added benefit that these bonds historically tend to increase in value during times of market turbulence. Dividend investing With bond yields still near generational lows, the current dividend yield on some equity markets appears relatively attractive. Investing in companies with an ability, willingness, and commitment to increase those dividends over time also allows for growing income streams over medium- to long-term horizons.

3. Is your portfolio too familiar?

No individual region or country is safe from all the potential risks we face. The US market could be exposed to Fed rate hikes, the Eurozone is vulnerable to an oil supply shock, while EM and Asia could be at risk from escalating trade tensions or a China slowdown.

Investment ideas

Global diversification An obvious action for investors with concentrated portfolios is to diversify globally. Where this is not possible our research suggests that borrowing against a concentrated portfolio, and using the proceeds to invest in a diversified portfolio can improve the risk-return characteristics of the overall portfolio.

4. Have you considered protecting your profits?

We would expect to see global equities fall in the event of a China economic slowdown and/or an accelerated Fed hiking cycle. And while we wouldn't expect an oil supply shock or escalating trade tensions to mean global equities as a whole decline, stocks would likely see much higher volatility.

For those investors who can use options, one method of downside protection is to buy put options.

Investment ideas

Systematic hedging Investors can improve the cost-effectiveness of hedging strategies by looking for markets that exhibit volatile and correlated drawdowns during global sell-offs, and buy downside protection on these markets.

5. Are you prepared to look beyond the current noise in the markets?

At a time of heightened uncertainty about the economic cycle, buying assets with exposure to secular growth drivers can help improve portfolio performance and reduce risk.

Keeping a longer-term mindset can also help reduce the temptation for investors to sell during periods of volatility. Behavioral finance studies show that panic selling is a significant driver of the long-term underperformance of private investors relative to market benchmarks.

Investment ideas

Sustainable investing Investing in a way that has a positive impact on society and the environment may enhance long-term risk-adjusted rates of return. Companies with high standards of corporate governance may face fewer tail risks, such as large fines from regulators or reputation damage. Furthermore, adding multilateral development bank debt to a portfolio may provide some cushion against the aforementioned key risks.

Long-term investment themes We expect companies exposed to long-term trends such as population growth, aging, and urbanization to deliver faster-than-GDP revenue growth. Individual companies can be negatively affected by the economic cycle and changes in competitive positioning, but investing in a diversified range of companies exposed to a broad range of themes can offer good riskadjusted rates of return. Currently we see particular opportunities in investments related to Fintech, Automation and robotics, Digital data, and Medical devices.

Private markets Some exposure to private markets can improve the long-term risk-adjusted return of portfolios by allowing investors to capture additional sources of return including illiquidity premiums, alternative investment premiums, and manager skill. Since these investments do not trade on public exchanges, they do not typically

demonstrate large short-term swings in value, and have a low correlation to public markets.

B. Implementing additional precautions against specific scenarios

In the previous edition of the Global Risk Radar ("Look beyond the noise"), we argued that investors need to be cognizant of some of the market risks that could end the global business cycle. Historically, economic recessions and bear markets have often been preceded by a peak in the Fed hiking cycle. But history also shows that Fed policy is rarely the only trigger of a market downturn. For example, the 2008 financial crisis coincided with a peak in short-term interest rates, but bubble creation in the US subprime mortgage market contributed as well.

In the following sections, we look more closely at several risk scenarios that we believe may prove relevant to global markets over the coming six to 12 months. The four biggest risks we currently see are escalating trade tensions, accelerated Fed rate hikes, a China economic slowdown and an oil supply shock. We indicate which assets may outperform or underperform their peers should any of these risks materialize.

Investors particularly concerned about individual scenarios could consider using this analysis to reduce holdings identified as potential underperformers, and reallocating the proceeds to potential outperformers.

Rebalancing against one specific downside scenario comes with a potential cost, however. If the scenario does not materialize investors may find themselves poorly positioned for our base case, or more exposed to another risk. For instance, adopting more defensive positioning to protect against escalating trade tensions might mean underperformance if tensions are resolved. Alternatively, selling Asian equities and buying US equities to protect portfolios against a slowdown in the Chinese economy might leave investors more exposed to the risk of faster-than-expected Fed rate hikes.

As such, we would only recommend this approach to investors who have a reason to be particularly concerned about an individual scenario, for example if their personal business or human capital would also be affected in the event of a given scenario materializing.

Table 3: Risk calendar

Key events 2018

Sept	-	September 9, North Korea national day September 13, ECB meeting, BoE meeting	Ongoing Monitoring
	_	September 19, BoJ meeting September 26, FOMC meeting	Risk categories:
Oct	- - - -	October 07, Brazilian election (President and Chamber of Deputies) October 12-14, IMF Annual Meeting (Indonesia) October 15, Italy to submit a draft budgetary plan to the EC October 18-19, Brexit: Deadline to agree deal / ratification process October 25, ECB meeting October 31, BoJ meeting	 Central bank policy Statements by key central bank members Inflation-related data (e.g. CPI, wage growth, unemployment) China: Credit crunch PMIs and industrial production Fixed asset and intrastructure investments FX reserves
Nov	- - - -	November 01, BoE meeting November 04, US sanctions on Iran reinforced November 06, US mid-term elections November 8, FOMC meeting November 30 to 01 December, G20 summit in Argentina	European politicsBrexit negotiationsItalian political eventsTurkey
Dec	- - - -	December 03, OPEC meeting December 10, Libyan election (President & Council of Deputies; date tbc) December 13, ECB meeting December 19, FOMC meeting December 20, BoJ meeting, BoE meeting December 31, Deadline for Italian budget approval	 Geopolitics US-China relations (e.g. One China policy, South China Sea) Geopolitics - other than US-China relations (e.g. Middle East) Cyber attacks Sanctions (e.g. Russia, Iran)
Jan Feb	- • - •	January 23, BoJ meeting February 01, FOMC meeting February 07, BoE meeting (tbc)	 Rising protectionism Negotiation on new and existing free trade agreements (e.g. NAFTA) New tariffs on goods and services (e.g. tariff on Chinese goods)
		February 24, Moldovan election (Parliament)	– EU-UK negotiation

Source: UBS, as of August 2018

Global trade war

Will import tariffs threaten to undermine the global trading system?

Recent developments

Recent events point to diverging developments in trade tensions across regions. The US-China dispute has continued to escalate with another round of tariffs under the hood, while the Juncker agreement and a likely positive solution on NAFTA signal a potential de-escalation with Europe, Mexico and Canada.

US-China: On 23 August, the US administration started collecting 25% tariffs on USD 16bn of Chinese goods in addition to the USD 34bn in Chinese imports already being taxed. The duties on a total of USD 50bn products resulted from the Section 301 investigation into Chinese discriminatory practices related to technology transfer. China kept its promise and retaliated by imposing 25% tariffs on USD 16bn of US goods and, in turn, brought the retaliatory duties to a total of USD 50bn of US products. As trade barriers came into effect China's A and H share equities bore the brunt of the impact, while the US market continued to rally. The latest round of bilateral trade talks held on 22-23 August concluded with no progress as announced officially in China on 26 August. The time left for further engagement before additional tariffs on USD 200bn worth of Chinese imports go into effect is now quite short.

US-EU: The elusive deal between US President Donald Trump and the European Commission President Jean-Claude Juncker announced on 25 July relieved EU-US trade tensions somewhat. The joint statement raised the prospect of a world with lower trade barriers, with the two partners pledging to "work towards zero tariffs, zero nontariffs barriers, and zero subsidies on non-auto industrial goods." Nevertheless, the deal merely outlines a potential resolution of trade divergences, and years of complex negotiations are required to turn it into actual policy. We believe the situation will remain fluid, as talks between the US administration and the European Commission resumed in August.

NAFTA: On 27 August, the White House announced that the US and Mexico reached a preliminary agreement to revamp NAFTA. The bilateral deal appears more restrictive on several provisions, especially on the contentious rule governing automobile manufacturing, but it waters down the US proposal to introduce a five-year sunset clause. Although the announcement marks a clear step toward resolving the conflict, the road to a final agreement remains difficult. Several hurdles must still be overcome once Canada joins the discussion. At time of publication, it was still unclear whether Canada would sign on to the deal.

Our view

Base case

We reiterate our view that the ultimate goal of the US administration is a renegotiation of existing trade deals, which should lead to lower tariffs and trade barriers. But the path to a resolution is unpredictable – a broad spectrum of potential outcomes regarding tariffs, sanctions and retaliatory measures may derail the negotiations between the US and the rest of the world in the months to come.

Trend Stable **Probability** Very low

Risk dimensions

CIO expert assessment

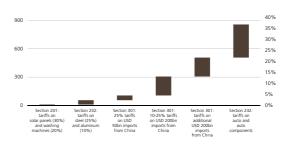


Note: Distance from center (1-4) represents the dimension score. The CIO risk score is an average of the four risk dimensions.

Source: UBS, as of August 2018

US imports subject to trade investigations

Value of imports in USD bn (lhs) and in percentage of total imports (rhs)



Source: UBS, as of August 2018

Base case (55% chance): Diverging developments

In our base case, we see the US administration further concentrating on trade policies against China, while adopting a more conciliatory tone with other trading partners. US-China tensions will likely get worse before they get better. Political support for trade measures against China is much broader than for the tariffs imposed on US allies. Hostility between the two countries is therefore likely to persist until after the US midterm elections at the earliest, and possibly for the entire duration of the Trump administration.

We expect the US to impose at least 10% tariffs on an additional USD 200bn worth of Chinese imports around the end of September. Though it seems reluctant to escalate the trade spat, China will likely retaliate by using a mixture of trade actions, including non-merchandise measures. Policy actions may include: further market opening, establishment of preferential regional trade agreements and more favorable Foreign Direct Investment (FDI) access to major trading partners (other than the US, of course). Besides imposing 5-25% tariffs on USD 60bn of US imports, China could file a complaint with the World Trade Organization (WTO), increasing scrutiny on US companies operating in China.

We believe China is unlikely to "weaponize" the CNY due to the risk of locking in more entrenched exchange rate expectations, but over time we see it adopting greater policy latitude over exchange rate flexibility. If a relatively stable level of FX reserves is needed to maintain confidence it wouldn't make sense to aggressively defend a "line in the sand."

Trump also indicated a readiness to slap tariffs on the entirety of Chinese goods. As he remarked, the US imported USD 505bn worth of goods from China last year, leading to a trade deficit of nearly USD 376bn (US Census Bureau data). Though US trade policy has been quite unpredictable so far, we consider such drastic action as unlikely.

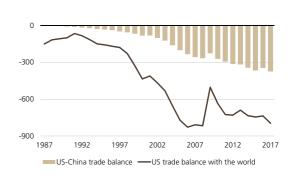
In other negotiations, we think the US administration will either delay releasing the report on auto tariffs or decline to impose tariffs immediately amid ongoing negotiations with the EU and its NAFTA partners. Although remaining warm to the idea, Trump is encountering significant opposition on auto tariffs from the industry and Congress. The US administration will instead use the simmering threat of duties on car imports to exact better trade agreements with the EU, Mexico and Canada, in our view.

The direct impact of the trade measures implemented to date is modest. The next round of USD 200bn tariffs on Chinese imports could, however, have greater economic repercussions, especially if a 25% tariff rate is chosen. Indirect effects on business confidence and investment commitments could start to offset some of the positive economic momentum. CIO believes that the uncertainty on growth generated by new sanctions could force the Fed to skip a rate hike in December. The Fed will eventually resume raising rates in March, we think, when growth returns to pace (see "US economy, Escalating risk from trade disputes" from 18 July).

Upside scenario (40% chance): Revived negotiations prevent new trade sanctions

In our upside scenario, the White House could resume negotiations with China in an effort to reach an agreement before the G20 summit

US trade deficit with China has been rising US yearly trade balance, in USD bn



Source: US Census Bureau, as of August 2018

(due in late November). Beijing could in turn agree to buy more US products and step back from its allegedly unfair trade practices on technology transfer. As a consequence, the US could revoke implementing more levies on Chinese imports. Under the constant threat of new sanctions, other trading partners might be forced to offer concessions, such as buying more US products, aligning tariff levels, or opening up their domestic markets. In such a scenario, Trump would be able to declare victory on a key priority of his political agenda ahead of the US midterm elections.

Downside scenario (tail risk with a 5% chance): Global trade war

In our tail scenario, uncertainty surrounding the economic impact of additional tariffs could weigh on business sentiment of industry groups that have come to rely on Chinese imports to keep prices low and profits high. Second-order effects could further induce sweeping changes in global supply chains. As cheap products are rerouted to new destination markets, other developed economies could be forced to implement restrictive trade policies of their own to prevent unfair price competition. In this scenario, global trade volumes would fall substantially, causing global GDP growth to slow by 0.5–1 percentage point. This scenario would likely end the current business expansion cycle, causing global equities to enter a bear market and forcing major central banks back into easing mode.

Investment conclusions

Financial markets seem to have reacted to trade policy announcements by adjusting for first-order economic implications only. In other words, markets responded to the direct mechanical impact of the policy announcement, but not the potential knock-on effects from disrupted global supply chains or hits to consumer and business sentiment. This may suggest that, as of today, markets in general may be underestimating the full economic impact of restrictions on trade.

In previous editions of the *Global Risk Radar*, we covered the potential impacts of trade tensions on global asset classes (see "Trade tensions – next round" from 20 June). The table at the right provides an overview of asset classes that, in CIO's opinion, may profit or suffer relative to others if trade tensions escalate more. In general, equities tend to suffer if economic growth slows as a result of less global trade. Equity markets of export-oriented countries that derive a larger portion of their revenues from abroad are particularly exposed. In addition, we would expect emerging market currencies to depreciate against the US dollar, particularly those of economies tightly integrated into the global supply chain (e.g. the Mexican peso, Korean won and Taiwanese dollar).

Global trade war

Expected relative asset performance in the downside scenario, by asset class category*

Category	Relative outperformers	Relative underperformers
Cross-asset	High grade bonds	EM equities DM equities (ex-US)
Global equity regions	US Switzerland	Germany Japan EM
EM equities	Thailand	South Korea Taiwan China
US sectors	Utilities Telecom	Industrials Materials
EMU sectors	Consumer staples Healthcare Utilities Telecom	Consumer discretionary IT Industrials Materials
Bonds	High grade bonds US Treasury 10y	EM corporate bonds
Commodities	Gold	Crude oil Industrial metals
FX	US dollar Japanese yen Swiss franc	Canadian dollar Mexican peso Korean Won Taiwanese dollar

*Note: This table outlines CIO's assessment of relative performance of asset classes within each category under one given scenario. Views expressed here do not represent calls on asset class performance against cash, or calls on performance across asset class categories. These views may also differ from UBS House View recommendations which are built by analyzing multiple scenarios together, rather than one specific scenario outcome.

- 06 Sep 2018: Due date for submission of post-hearing rebuttal comments on Section 301 investigation
- •06 Nov 2018: US midterm elections
- 17 Feb 2019: Ultimate deadline for completing the US Section 232 investigation on auto imports

Accelerated Fed tightening

Will the Fed have to cause a US recession in the next 18 months?

Recent developments

The Federal Reserve's interest rate policy decisions are dictated by a dual mandate: to maintain full employment while stabilizing the rise of prices in the economy – i.e. inflation – at around 2% per year in the long run. If inflation gets too high, the Fed may be prompted to raise interest rates more quickly and cause a temporary economic downturn.

In a typical business cycle, an overheating labor market leads to rising wages and more purchasing power for consumers, which in turn incentivizes companies to invest in new projects and grow the economy. We have already started to see initial signs of US business investment in the first two quarters of this year (S&P 500 companies increased capex spending by 21% in 1Q and 25% in 2Q). Under normal economic conditions, this would give equity markets and other growth-proxy assets a final boost, until the Fed eventually uses rate hikes to force the US economy to slow down. This year, however, the specter of political uncertainty looms over the business community, as a string of unexpected tariff announcements and sanctions makes it riskier and costlier for companies to expand operations both at home and abroad. This is not good news for the business cycle: if political uncertainty persists, it may start to negate the recent surge in business investment, even if wage growth accelerates. And as a result, growth-proxy assets may have little scope to appreciate more anytime soon.

Our view

Our base case: Benign outlook for the US economy

The lengthy recovery of the US economy since the 2008 crisis has not led to a troubling pickup in inflation, inflation expectations or wage growth. So the Fed has no immediate cause for alarm, despite unemployment already hitting a post-2001 low. Core PCE inflation and break-even inflation expectations are both hovering near the Fed's 2% target, while year-on-year growth in average hourly earnings is around 2.7% at the time of writing (it exceeded 3.5% at the peak of the previous cycle).

In its base case, CIO does not expect sharp moves to occur in any of these economic indicators in the coming months. Inflation expectations are largely anchored and wage growth is picking up only gradually, so core PCE inflation should stabilize slightly above 2% next year. We expect GDP growth to trend around 3%, although more tariffs may cause a temporary slowdown. The Fed seems on track to hike rates at least once more this year – two if trade tensions don't escalate – and continue to raise them gradually next year, which should give global equity markets enough scope to resume their modest upward trajectory, especially if trade tensions start to blow over after the US midterm elections.

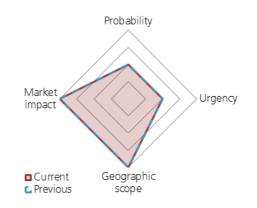
Downside scenario (10-20% probability): Higher US inflation, faster Fed hikes, earlier US recession

While CIO expects only a gradual rise in wages, inflation and inflation expectations from here, several factors may contribute toward a sharp near-term pickup in any or all of these metrics. The biggest risk is that of an inflection point in the US labor market, where wage growth could

Trend Stable Probability Low

Risk dimensions

CIO expert assessment



Note: Distance from center (1-4) represents the dimension score. The CIO risk score is an average of the four risk dimensions.

Source: UBS, as of June 2018.

Fed and the US economic cycle

Modern economic theory dictates that an overheating labor market should eventually lead to a rise in inflation, in which case the Fed would intervene by raising interest rates. Higher interest rates prevent imbalances, such as asset bubbles and disanchored inflation expectations, from forming and hampering economic growth further down the line; however, bringing the economy back towards equilibrium through higher interest rates often comes at the expense of a temporary downturn in growth (a recession) and a sizeable correction in equities (a bear market).

Source: UBS, as of August 2018.

US recessions are normally preceded by bear markets in US equities

S&P 500 index level (<u>log scale</u>), with NBER recessions shaded



■ Prior US recessions, as identified by the National Bureau of Economic Research

Source: Macrobond, UBS, as of 26 March 2018.

suddenly accelerate much more rapidly. In addition, further trade tariffs could exert more upward pressure on import prices, while geopolitical escalation in the Middle East could lead to a severe shortage in the oil supply.

If core PCE inflation breaches 2.5% with a corresponding rise in inflation expectations, the Fed will likely be compelled to start hiking at each meeting. This could lead to many more rate hikes than the four we currently expect by the end of next year. In an environment where heightened political uncertainty hampers business investment, such a policy shift would not be good news for markets. We do not expect global equities to rise more than 10% at any point in the coming six to nine months. After that, a much higher Fed funds rate would likely lead to a flat or even inverted US Treasury curve towards mid-2019. An equity bear market would start soon after, with a US recession following in early 2020.

Upside scenario (10-20% probability): Stronger US growth, modest inflation, bull market

In our upside scenario, the attention of US and global investors and businesses could turn back to strong economic fundamentals rather than the looming political risk caused by widely unexpected foreign policy moves by the White House. In this environment, business investment could pick up substantially and prompt the US economy to grow robustly without a troubling pickup in inflation or inflation expectations. The Fed would not have to raise rates rapidly, and would likely return to its previous trajectory of one interest rate hike per quarter. A 4% fed funds rate could be reached by the end of 2020, and US and global equities could re-enter a bull market for the next two years on another global cyclical growth upswing.

Investment conclusions

Investment ideas for the downside scenario

Higher inflation causing the Fed to end the US business cycle would be one of the worst-case outcomes for global markets over the next 12-18 months. After a period of lackluster performance at best as the Fed raises rates (call it "phase 1" of the scenario), global equities would likely enter a prolonged and severe downturn (call it "phase 2"). The average duration of an equity bear market is 13 months, and we would expect US equities to lose 30% of their capitalization value over that period. Other equity markets may suffer even larger drawdowns, especially if second-order effects like a debt crisis in Italy or a crisis in emerging markets erupted.

Safe-haven investments such as bonds (high grade bonds, US Treasuries, US inflation-linked bonds), gold and certain currencies (US dollar, Swiss franc, Japanese yen), should provide protection in such a scenario. High grade bonds and US Treasuries could suffer initially (i.e. in phase 1) due to higher inflation and higher interest rates; but these asset classes would likely be among the best performers during the subsequent bear market (phase 2). Conversely, assets such as gold and US inflation-linked bonds could offer more protection during phase 1 of the scenario, while their appreciation during phase 2 could be less pronounced. For a full list of CIO asset class views under the downside risk scenario of accelerated Fed tightening, please refer to the table at the right.

Accelerated Fed hiking cycle

Expected relative asset performance in the downside scenario, by asset class category*

Category	Relative outperformers	Relative underperformers
Cross-asset	High grade bonds US inflation-linked bonds US Treasuries	Equities High yield credit Emerging market assets
Global equities	Switzerland UK	Japan US
EM equities	China Hong Kong Asia ex. Japan	EM
US equity sectors	Healthcare Telecoms Staples Utilities	Materials Industrials Discretionary IT
EMU equity sectors	Healthcare Telecoms Staples Utilities Energy	Materials Financials Discretionary IT Real Estate
Global ESG equities	ESG leaders**	ESG engagement***
Bonds	High grade bonds US inflation-linked bonds US Treasury 10y Asia IG	USD high yield EUR high yield EM credit Asia HY
Commodities	Gold	Base metals
FX	US dollar Swiss franc Japanese yen	Euro EM FX Other cyclical FX

*Note: This table outlines CIO's assessment of relative performance of asset classes within each category under one given scenario. Views expressed here do not represent calls on asset class performance against cash, or calls on performance across asset class categories. These views may also differ from UBS House View recommendations which are built by analyzing multiple scenarios together, rather than one specific scenario outcome.

**ESG leaders: Equity shares in companies that manage a range of critical ESG issues and seize ESG opportunities better than their competitors.

***ESG engagement: An approach where fund managers take active equity stakes in order to engage company management to improve their performance on ESG issues and opportunities. This approach has greatest potential with smaller companies.

Source: UBS, as of 28 August 2018

Key dates to watch

•04 Sep 2018: US business activity data (ISM)

•07 Sep 2018: US labor report

•26 Sep 2018: Fed meeting (rate hike expected)

China: Sharp economic slowdown

Will China experience a sharp economic slowdown in 2019?

Recent developments

Background

As a result of the recent bout of US tariff measures and threats against China, CIO has lowered its Chinese growth projections for 2H 2018 and for 2019. We still maintain a positive view on China overall, despite external headwinds created by trade tariffs and a power struggle with the US. However, we also concede that these headwinds increase downside risks to Chinese growth in the year ahead. Our new downside risk scenario for China contemplates a sharp economic slowdown in 2019.

An external shock to growth such as the one caused by a sudden introduction of trade restrictions, has different economic implications for a country like China than it does for a country like the United States. Unlike the US, China is an economy under prominent government influence which is also in the midst of a transition to slower trend growth. Its currency, the renminbi (CNY), is carefully monitored and adjusted against a weighted basket. China's debt-to-GDP ratio remains relatively stable at a very high level following a period of regulatory policy tightening. China also runs a diminishing trade surplus with occasional dips into current account deficit alongside stable foreign exchanges reserves.

State policy interventions have historically been, and continue to be, China's main line of defense against external shocks and internal imbalances alike. In recent months, China's policy emphasis has shifted from 'deleveraging' the economy to 'stabilizing leverage', implying that the debt-to-GDP ratio may rise again at a slow pace to c. 280% GDP in order to offset external headwinds to growth. This will provide near-term policy relief, but rising leverage also increases the longer-term risk of debt sustainability as China continues to slow. More ambitious policy projects such as accelerated market opening, more active promotion of regional free trade, and domestic structural reforms, may receive a higher priority now, but it will still take a while before these projects have a meaningful positive effect on the economy.

Our view

Our base case: On track for moderation

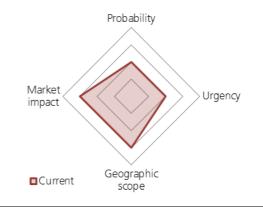
CIO remains positive on the financial stability and growth outlook for China, even after the downward revision to GDP on the back of US tariffs. With 6.5% GDP growth expected this year and 6.2% in 2019, China's economic trajectory is still very strong compared to peers. It has long been a widely accepted consensus view that some economic slowdown in China is a healthy and necessary side-effect of reducing leverage and transitioning to a more sustainable growth model. As a result, even a slowing China has proved to be an attractive destination market for global businesses and investors.

Ultimately, the Chinese government's good track record in economic policy so far, suggests that it should be able to weather and manage its economic imbalances going forward - at least until proven otherwise - despite a more challenging political and economic landscape globally.

Trend Rising Probability Low

Risk dimensions

CIO expert assessment

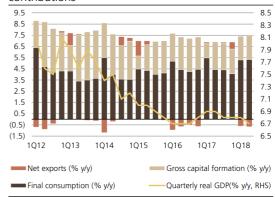


Note: Distance from center (1-4) represents the dimension score. The CIO risk score is an average of the four risk dimensions.

Source: UBS, as of August 2018,

China's GDP growth slowed in 2Q 2018, driven partly by negative net exports

China's quarterly GDP growth and component contributions



Source: CEIC, UBS, as of June 2018.

Our downside scenario (10-20% probability): Sharp economic slowdown

Given the recent rhetoric by the White House, it is not inconceivable that the US could impose investment restrictions and 10-25% tariffs on approx. USD 500bn worth of annual Chinese imports before 2020. The economic implications of such a measure would go far beyond our base case expectations, or what the market is currently pricing in.

In such a scenario, China would experience a much sharper slowdown in 2019 than what our base case suggests, with country-wide GDP growth likely falling to around 5% for at least two quarters. China's current account balance could also deteriorate much further given the high chance of a tariff-driven export slowdown. Such conditions could cause the USDCNY to depreciate sharply beyond 7.5 within a quarter, alongside a steep decline in official FX reserves, forcing the government to further tighten up capital controls. In this environment, contagion in global markets is unlikely to be avoided.

Our upside scenario (0-10% probability): GDP growth accelerates to 6.6-6.8%

With an orderly slowdown considered as a welcome norm, accelerating Chinese growth would constitute a strong positive surprise - especially if other economic targets, such as deleveraging and a transition to a consumption-driven economic model, continue to be met. This environment would allow Chinese current account balance to go back above USD 100bn. Commodities and risk assets, especially those in Asia and EM more broadly, would appreciate considerably in such a scenario.

Investment conclusions

Investment implications of the downside risk

Our downside scenario of 5% growth in China would not end the global business cycle or derail markets to the same extent as a Fedinduced US recession or a global trade war; however, a sharp Chinese slowdown would definitely not go unnoticed by Asian and global markets. Risky assets would likely sell off sharply, driven by Asian and emerging market equities, while safe haven investments such as high grade bonds and US Treasuries would appreciate. Energy commodities and industrial metals would also suffer significant price declines, as many of these commodities are mainly consumed by Chinese companies (in aggregate, approx. 50% of all global industrial metals go to China). Safe haven currencies like the US dollar, the Swiss franc and the Japanese yen would appreciate against more cyclical currencies like the euro and commodity-driven currencies such as the Australian dollar and the Norwegian krone, as well as against the broad EM FX complex; the extent of appreciation in the Japanese yen, however, would also depend on the extent of economic contagion towards the US and the rest of the world.

For a full list of CIO asset classes views under the China downside risk scenario, please refer to the table on the right.

China: Sharp economic slowdown

Expected relative asset performance in the downside scenario, by asset class category*

Category	Relative outperformers	Relative underperformers
Cross-asset	High grade bonds US Treasuries	Equities Emerging market assets
Global equities	US	Asia EM
US equity sectors	Utilities Telecoms	Energy Materials Industrials
EMU equity sectors	Staples Healthcare Real Estate Telecoms Utilities	Discretionary Energy Financials IT Industrals Materials
Global ESG equities	ESG leaders**	ESG engagement***
Bonds	High grade bonds US Treasury 10y	EM credit Asian high yield Asian local currency bonds
Commodities		Base metals Oil
FX	US Dollar Swiss franc Japanese yen	Asian FX Euro Australian dollar Norwegian krone

*Note: This table outlines CIO's assessment of relative performance of asset classes within each category under one given scenario. Views expressed here do not represent calls on asset class performance against cash, or calls on performance across asset class categories. These views may also differ from UBS House View recommendations which are built by analyzing multiple scenarios together, rather than one specific scenario outcome.

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Source: UBS, as of 28 August 2018.

Key dates to watch

•07 Sep 2018: Data on China FX reserves

•08 Sep 2018: China trade data

•30 Sep 2018: China business activity surveys

Oil supply shock

What would an oil supply shock mean for markets?

Recent developments

The oil market appears to be tightening again, with recent tracking data indicating a considerable drop in Iranian oil exports occurred in August, even prior to US sanctions against Iran being fully implemented in November. We see oil prices continuing to trend up over the next three to 12 months, given further expectations for oil demand to grow at above-trend this year while Iranian and Venezuelan production continues to fall. With Saudi Arabia and other GCC countries keeping production high to prevent a too tight oil market, spare capacity is likely to decline to multi-year lows in the fourth quarter.

Recent comments by US officials support our view that the Trump administration will maintain its harsh stance toward Iran. Several oil companies have already cut their imports of Iranian oil to prevent loss of access to the US financial system.

Our view

Base case (60-70% chance): Limited upside to oil prices

CIO expects oil prices (Brent) to rise to USD 85/bbl over the next three to 12 months, supported by a relatively tight crude oil market. As US oil-related sanctions against Iran are due to be reinforced in November, as much as 1–1.5 mpbd of oil could disappear from the global marketplace, equivalent to one year of incremental global demand. With OPEC and its allies ramping up supply to make up for the loss of Iranian barrels, spare capacity could fall to very low levels, and the group would have a reduced ability to cope with any future supply shocks (see Global Risk Radar: "Oil Supply Shock, from 30 July). As a result, we expect oil prices to remain very sensitive to supply disruptions in the near future.

Risk scenario (20-30% chance): Escalating tensions disrupt energy exports

In a risk case of more large oil disruptions, prices could soar to USD 120/bbl. The spike could be caused by a larger fall in Iranian production than our current base case suggests on top of greater supply disruptions in other fragile oil-producing countries. Other threatening catalysts include a potential move by Iran to block Persian Gulf exports in the Strait of Hormuz, through which more than 30% of seaborne crude passes. A sustained blockade remains very unlikely as it would translate into Iran sending out an assault signal, and the US, the UK and France would presumably deploy a fleet of warships to the strait to ensure the flow of oil. Prices would, however, spike for as long as the blockage persisted.

Finally, the Middle East remains a source of heightened geopolitical uncertainty in general. As such, there is always a risk of revived unrest in multiple region hotspots, which may result in an additional shock to global oil supply.

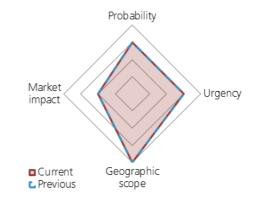
Positive scenario (10% chance): Limited downside to oil prices

Downside risks to the price of oil could come from a sharp increase in US crude production and/or less demand growth in emerging Asia due to an economic slowdown. If such an economic deceleration is contained, oil prices dropping to USD 50-70 would become a net

Trend Stable **Probability** Moderate

Risk dimensions

CIO expert assessment



Note: Distance from center (1-4) represents the dimension score. The CIO risk score is an average of the four risk dimensions.

Source: UBS, as of August 2018

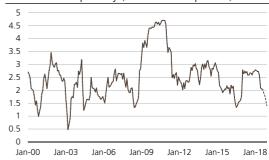
Note: Spare capacity

Spare capacity refers to the additional volume of (crude oil) production that can be brought on quickly and sustainably to the market. It is an important determinant of the oil market's ability to respond to potential crises, and oil prices tend to incorporate a higher risk premium when OPEC spare capacity reaches low levels.

Source: UBS, as of August 2018

Spare capacity expected to fall to multi-year low

Spare capacity of Saudi Arabia, UAE and Kuwait in million barrels per day (dotted line expected)



Source: IEA, UBS, as of August 2018

positive contributor to global growth. We see a very low probability (10% chance) that oil prices fall back to such low levels.

Investment conclusions

During previous episodes of large oil supply shocks, global equities fell about 15% on average, but recovered within six months. In credit, European high yield and emerging market bonds of oil-importing countries suffered most, but recovered within three months. The US dollar was initially seen to appreciate as investors sought a safe haven; but this move reversed later. High grade bonds have historically offered some protection, but they may be a less effective hedge today as most interest rates remain close to all-time lows.

Given current global growth momentum, major economies have been able to absorb a higher oil price so far, as expected. But if prices climb above USD 100/bbl for a protracted period of time, the impact on global growth becomes a net negative, as gains made by producers are not enough to offset losses from consumers. In the case of a sustained rise in prices, central banks may be forced to hike rates to curb inflation, increasing the risk of recession down the line.

For a summary of asset classes that we would anticipate benefiting or suffering relative to others in the case of an oil supply shock, please see the table on the right.

Oil supply shock

Expected relative asset performance in the risk scenario, by asset class category*

Category	Relative outperformers	Relative underperformers
Cross-asset	US High grade bonds Crude oil	EM equities
Global equity regions	Canada United Kingdom Brazil Russia	Eurozone Japan India
Equity sectors	EMU energy US energy	EMU consumer EMU consumer staples
Bonds	US high grade bonds Bonds of oil exporting EM countries	EUR high yield Bonds of oil importing EM countries
Commodities	Crude oil	Base metals
FX	Norwegian krone Canadian dollar British pound Russian ruble	US dollar Indian rupee

*Note: This table outlines CIO's assessment of relative performance of asset classes within each category under one given scenario. Views expressed here do not represent calls on asset class performance against cash, or calls on performance across asset class categories. These views may also differ from UBS House View recommendations, which are built by analyzing multiple scenarios together, rather than one specific scenario outcome.

- **04 Nov 2018:** End of the 180-day wind-down period to reinforce Iran sanctions on oil
- •03 Dec 2018: OPEC meeting in Vienna

Political crisis in Italy

Will Italy fail to comply with EU budget rules?

Recent developments

The so called "government contract" between M5S and Lega increasingly resembles a political manifesto more than a policy document. The reform of the income and corporate tax system that will eventually lead to a "flat tax" system is now expected to be rolled out gradually, beginning in 2020. Basic income will come earlier but will be implemented slowly, only on a temporary basis and subject to conditions, while pension reform will be fine-tuned rather than repealed.

Though the endgame of the M5S-Lega government may be to avoid excessive departures from fiscal discipline, we expect that the process to finalize the budget will prove bumpy, with friction between the Italian government and the European Commission (EC) likely. The M5S-Lega government will want to show the public a tougher approach than the previous government did. We expect an acceptable outcome for the EC and markets to be agreed upon eventually, but negotiations could prove choppy and catch investor attention.

We don't see the recent spike in yields challenging debt sustainability. Current yields are unlikely to increase the cost of funding even if they prove long lasting (see "Global sovereign monitor 2Q18: Tighter times" from 19 June).

Our view

Base case: Continued efforts of Italy and ECB

Tensions within the Italian government and with the EC are likely to intensify ahead of the ratification of the 2019 budget law due this October. EU economic policies give indeed little fiscal space for the government to commit on the coalition program. CIO believes that the leaders of Lega and M5S will agree on a gradual and more diligent implementation of their major electoral promises, namely flat tax, pension reform and a minimum guaranteed income plan.

Risk case: Severe escalation of fiscal tensions with the EU

In this risk case, the populist government in Italy, a Lega-M5S coalition, starts implementing significant fiscal easing measures. The potential lack of fiscal discipline in the 2019 budget increases tensions between Italy and the EC and raises concerns about Italy's long-term debt sustainability. Amid rising worries of a renewed EMU crisis, spillover effects reach other peripheral countries such as Spain, Portugal and Greece. European institutions remain reactive and stick to a hard line against Italy. A development toward the scenario of 2011–12 will cause European assets to suffer. Although temporary frictions are highly likely, CIO assigns a low probability to a severe crisis breaking out between Italy and the EU.

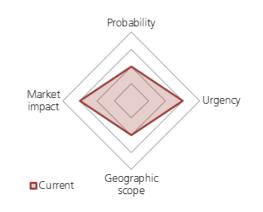
Investment conclusions

During the Eurozone debt crisis, 10-year Italian and Spanish sovereign bond yields breached 7%. The euro depreciated against major currencies, in particular the "safe haven" ones such as the Swiss franc. A stressed banking sector dragged down Eurozone equity markets. We consider a repeat of this scenario highly unlikely and think that current Italian bond yields compensate investors well for the additional risk. In this regard, we prefer short-dated Italian bonds to Spanish and Portuguese ones.

Trend Stable Probability Low

Risk dimensions

CIO expert assessment



Note: Distance from center (1-4) represents the dimension score. The CIO risk score is an average of the four risk dimensions.

Source: UBS, as of August 2018

Asset class impact

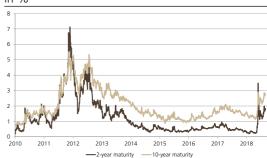
The table illustrates the expected impact of the risk scenario on various asset classes should it materialize: positive (green), negative (red) or neutral (blue).

Eurozone equities Euro (EUR) Swiss franc (CHF) Euro high yield bonds



Growing spread reflects increased concerns over Italian government debt

Yield differential between Italian and German bonds, in $\,\%$



Source: Bloomberg, UBS, as 29 August 2018

- 27 Sep 2018: Deadline for submission to parliament of the Economic and Financial Document (DEF)
- •15 Oct 2018: Deadline for submission of draft budgetary plan to EC
- •31 Dec 2018: Deadline for budget approval

North Korea

Doubts remain over North Korean denuclearization

Recent developments

On 12 June, in a historic summit between US President Donald Trump and North Korean leader Kim Jong-un in Singapore, the two pledged to work toward the "complete denuclearization" of the Korean Peninsula. But their joint statement failed to include specifics on how to achieve that. As we feared, after months of further talks between senior officials, the two nations have made little progress, unable to find common ground to lay out a road map for dismantling North Korea's nuclear weapons. Some reports have suggested that North Korea has been continuing with its missile program in the meantime. The recent cancellation of US Secretary of State Mike Pompeo's planned trip to the country and the resumption of military exercises with South Korea compounds the uncertainty of the situation. Trump cited a lack of progress in denuclearization talks as the reason for the cancellation and also mentioned that China is not involved in the process anymore due to trade tensions with the US.

Our view

Base case: Diplomatic negotiations

Our base case assumes a continued push for a diplomatic solution to denuclearizing North Korea, in a process likely to be protracted and full of uncertainty. In the meantime, sanctions will be maintained and North Korea is likely to pursue building (while concealing) its nuclear arsenal. While the negotiations may lead to temporary rises and falls in tensions, it is unlikely that the situation will escalate into a military conflict.

Tail risk: Military escalation

If diplomatic options are exhausted, several scenarios could lead to escalation – a preemptive strike from the US, military aggression by North Korea against South Korea, the US or Japan, or increased domestic instability threatening the North Korean regime. But we regard these developments as very unlikely despite the slow progress of recent discussions. We assign a low (10-20%) probability to this scenario.

Upside risk: Nuclear agreement

In an upside but low-probability scenario, the two nations would reach an agreement in the short term, with the US securing a North Korean commitment to stop production, development and research of nuclear weapons. This would lead the way for an economic opening and political détente. We assign a very low probability (>10%) to this scenario.

Investment conclusions

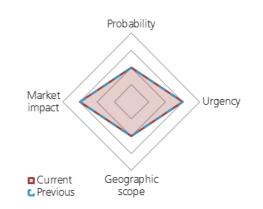
Episodes of escalation on the Korean peninsula are becoming less of a concern for global markets. While Pyongyang's threat against Guam in August 2017 caused equities to stumble for about a week, its sixth nuclear test in September caught the market's attention for no more than a day. The market reaction to the Cuban Missile Crisis in the 1960s suggests that stocks can remain calm right up to the outbreak of an actual conflict.

For investors who wish to hedge the tail risk of a military conflict breaking out, an overweight on the Japanese yen against the Taiwanese dollar and an overweight on Chinese stocks against Taiwanese equities could perform well in such a scenario, in our view.

Trend Stable **Probability** Low

Risk dimensions

CIO expert assessment



Note: Distance from center (1-4) represents the dimension score. The CIO risk score is an average of the four risk dimensions.

Source: UBS, as of August 2018.

Asset class impact

The table illustrates the expected impact of the risk scenario on various asset classes should it materialize: positive (green), negative (red) or neutral (blue).

Emerging market equities High-grade bonds Japanese yen Korean won Korean equities Asian equities

Provocative actions by North Korea

Impact on South Korea equity index (KOSPI)



Source: UBS, Bloomberg, press reports, as of 23 August 2018

- •09 Sep 2018: North Korea national day
- •09 Sep 2018: Xi Jinping to visit Pyongyang by
- •30 Sep 2018: North and South Korean leaders to meet again in September

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Non-Traditional Assets

Non-traditional asset classes are alternative investments that include hedge funds, private equity, real estate, and managed futures (collectively, alternative investments). Interests of alternative investment funds are sold only to qualified investors, and only by means of offering documents that include information about the risks, performance and expenses of alternative investment funds, and which clients are urged to read carefully before subscribing and retain. An investment in an alternative investment fund is speculative and involves significant risks. Specifically, these investments (1) are not mutual funds and are not subject to the same regulatory requirements as mutual funds; (2) may have performance that is volatile, and investors may lose all or a substantial amount of their investment; (3) may engage in leverage and other speculative investment practices that may increase the risk of investment loss; (4) are long-term, illiquid investments, there is generally no secondary market for the interests of a fund, and none is expected to develop; (5) interests of alternative investment funds typically will be illiquid and subject to restrictions on transfer; (6) may not be required to provide periodic pricing or valuation information to investors; (7) generally involve complex tax strategies and there may be delays in distributing tax information to investors; (8) are subject to high fees, including management fees and other fees and expenses, all of which will reduce profits.

Interests in alternative investment funds are not deposits or obligations of, or guaranteed or endorsed by, any bank or other insured depository institution, and are not federally insured by the Federal Deposit Insurance Corporation, the Federal Reserve Board, or any other governmental agency. Prospective investors should understand these risks and have the financial ability and willingness to accept them for an extended period of time before making an investment in an alternative investment fund and should consider an alternative investment fund as a supplement to an overall investment program.

In addition to the risks that apply to alternative investments generally, the following are additional risks related to an investment in these strategies:

- Hedge Fund Risk: There are risks specifically associated with investing in hedge funds, which may include risks associated with investing in short sales, options, small-cap stocks, "junk bonds," derivatives, distressed securities, non-U.S. securities and illiquid investments.
- Managed Futures: There are risks specifically associated with investing in managed futures programs. For example, not all managers focus on all strategies at all times, and managed futures strategies may have material directional elements.
- Real Estate: There are risks specifically associated with investing in real estate products and real estate investment trusts. They involve risks associated with debt, adverse changes in general economic or local market conditions, changes in governmental, tax, real estate and zoning laws or regulations, risks associated with capital calls and, for some real estate products, the risks associated with the ability to qualify for favorable treatment under the federal tax laws.
- Private Equity: There are risks specifically associated with investing in private equity. Capital calls can be made on short notice, and the failure to meet capital calls can result in significant adverse consequences including, but not limited to, a total loss of investment.
- Foreign Exchange/Currency Risk: Investors in securities of issuers located outside of the United States should be aware that even
 for securities denominated in U.S. dollars, changes in the exchange rate between the U.S. dollar and the issuer's "home" currency
 can have unexpected effects on the market value and liquidity of those securities. Those securities may also be affected by other
 risks (such as political, economic or regulatory changes) that may not be readily known to a U.S. investor.