# UBS House View

*Investment Strategy Guide*

November 2017

CIO Americas, Wealth Management

**US edition**

## Dealing with disaster

**In Context**: Keep calm and cycle on

**Top Theme Spotlight:** New cancer treatments inspire hope

UBS

CONTENTS




LinkedIn linkedin.com/in/mike-ryan-ubs





# Dear reader,

In this month's **Feature** article, we consider how investment strategy is impacted by the tail risks posed by "wealth destroyers" and disasters. Modern financial markets have been buffeted by crises, wars, defaults, and recessions yet the global market has endured. Concentrated regional risk has always been investors' biggest potential wealth destroyer, since many of these episodes proved disastrous for certain local markets. Global diversification is vital to protecting against the long-term destruction of capital and more effective than real assets or safe havens.

The 1987 bear market is distinctive because it wasn't associated with a recession and market losses were particularly acute and short-lived. On the occasion of Black Monday's 30th anniversary, this month's **In Context** article investigates the lessons that we can learn from that unique market environment. We see more differences than similarities between the present day and Black Monday and conclude that consistent and broad-based economic and earnings growth will remain a solid foundation for the current market trend.

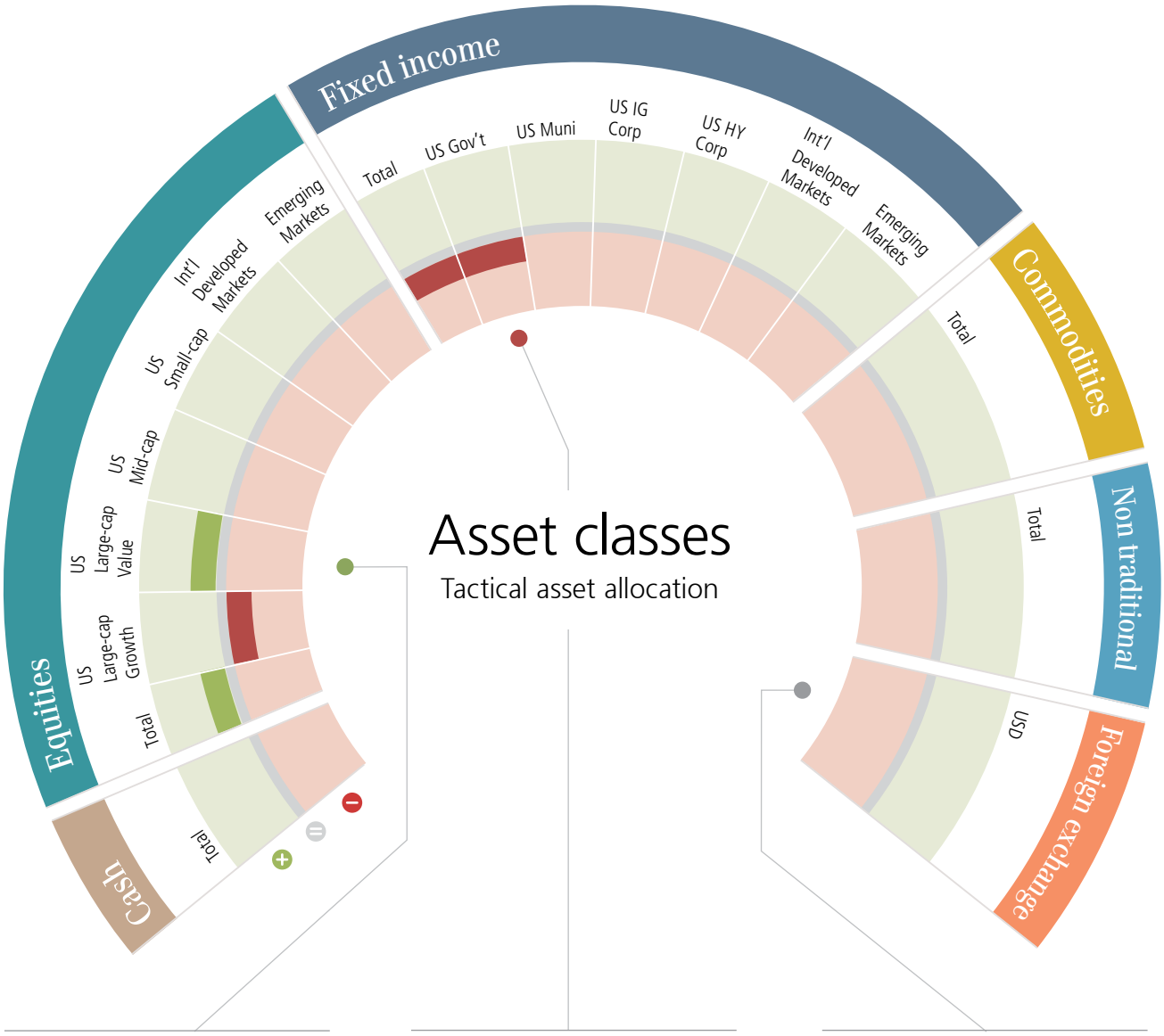
This month's **Top Themes** section takes stock of the state of the struggle against cancer and explores the promise of new oncology treatments. The introduction of outcome-based pricing could help to address cancer treatment costs, better align incentives with patient outcomes, and promote treatment availability. These trends bolster the outlook for our **Major advances in cancer therapeutics** stock list and our **Oncology Longer-term Investment** series.

Positive momentum has been building, underpinned by growing confidence in the outlook for the global economy, and we opt to maintain a tactical overweight to global equities over government bonds. Within US equities, we retain an overweight to US large-cap value vs. US large-cap growth, which should benefit from attractive valuations and our forecasted improvement in inflation. While we accept that short-term market disruptions are possible, the strong fundamental backdrop supports our view that markets will remain robust.

Regards,

Mike Ryan, CFA
Chief Investment Officer Americas,
UBS Wealth Management

# We remain overweight global equities vs. US government bonds.




## Equities

We continue to overweight global equities and value vs. growth in US large-caps.

## Fixed income

We maintain our underweight to US government bonds.

## Currencies

We are neutral on the US dollar and continue to prefer the Canadian dollar over the Australian dollar.

LEGEND

- Overweight: Tactical recommendation to hold more of the asset class than specified in the moderate risk strategic asset allocation (see page 23)
- Underweight: Tactical recommendation to hold less of the asset class than specified in the moderate risk strategic asset allocation (see page 23)
- Neutral: Tactical recommendation to hold the asset class in line with its weight in the moderate risk strategic asset allocation (see page 23)

Each bar represents a +/- 2% tactical tilt or part thereof (i.e., one bar = 0.5% to 2%, 2 bars = 2.5% to 4%, 3 bars = over 4%). **NOTE: TACTICAL TIME HORIZON IS APPROXIMATELY SIX MONTHS**

# Dealing with disaster

## Wealth destroyers

Inflations, wars, sovereign defaults, and revolutions are what permanently destroy wealth.

## Equities a clear winner

Equities have offered investors superior long-run returns compared with bonds and real assets; staying invested over the cycle improves those returns.

## Diversification is key

Empires may crumble, but the world doesn't end very often.

## Tactical asset allocation

We maintain our overweight to global equities. We believe economic and earnings growth should enable stocks to grind higher.

Mark Haefele

Global Chief Investment Officer
Wealth Management

**Follow me on LinkedIn**
linkedin.com/in/markhaefele

**Follow me on Twitter**
twitter.com/UBS_CIO

Interest in survivalism has soared in recent years. Whether driven by concern over social unrest, climate change, financial collapse, killer robots, superbugs, or World War III, more and more people are preparing for the very worst. Bomb shelter sales are up; there are multi-year waiting lists for safety deposit boxes; and tech billionaires are buying property in New Zealand[1].

The sense of fear is interesting because the last century should have taught us plenty about living with uncertainty. Since 1900 the world has seen at least a dozen hyperinflations, 20 recessions[2], almost 200 sovereign defaults or debt crises, two global financial crises, and 12 bear markets. The geopolitical picture was even worse: seven global pandemics, two world wars, hundreds of civil or regional wars, more than 2,000 nuclear detonations, and communist revolutions in both the world's largest and most populous countries.

What do all these years of crisis tell us about the prospect of investing through another century of uncertainty?

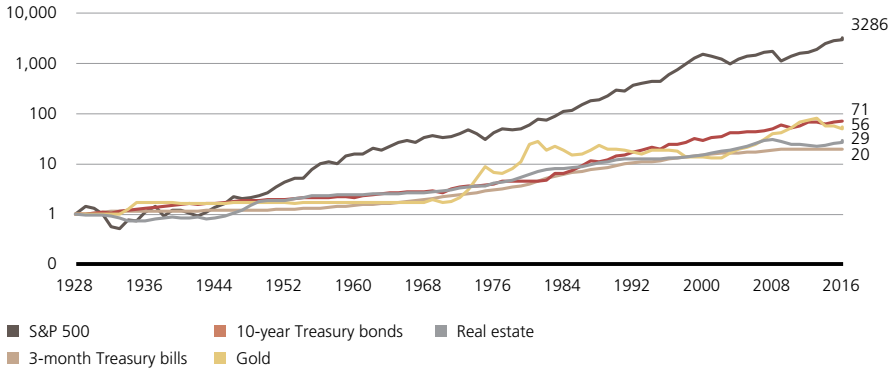
Wealth creation has been about owning equities and staying patient. In nominal terms, US stocks have returned an annual average of 9.6%, versus 4.6% for 10-year bonds and 3.5% for real estate (Fig. 1).

Adjusted for inflation, annual returns on US equities averaged 6.6%, bonds 1.6% and real estate only 0.5%. And although there were 12 occasions in which equities suffered a more than 20% drawdown, patience was well rewarded. If you invested all your money right at the top of the dotcom bubble, it took 14 years to make it back in real terms. However, the table below (Fig. 2) shows that most drawdowns were smaller, including that of the Great Depression.

[1] Bloomberg Finance L.P., South China Morning Post, Stuff.co.nz
[2] Only in the US

**Fig. 1: Despite bear markets, equities have significantly outperformed other asset classes over the long term**[3]

Total returns on the S&P 500, 3-month Treasury bills, 10-year Treasury bonds, and gold on a logarithmic scale.




Source: Aswath Damodaran, Stern Business School New York University, Bloomberg Finance L.P., UBS WM CIO, as of 2016

**Fig. 2: Top 5 S&P 500 drawdowns**

Maximum S&P annual drawdowns adjusted for inflation based on total return, in %

| List of drawdowns | Length of drawdowns |
|---|---|
| 2000 – 2013* | 14 years |
| 1973 – 1984 | 12 years |
| 1937 – 1945 | 9 years |
| 1929 – 1936 | 8 years |
| 1946 – 1950 | 5 years |

*2000–2013 includes the Great Financial Crisis period: stocks had failed to regain their 2000 highs in real terms before the crisis hit.

Source: Aswath Damodaran, Stern Business School New York University, Bloomberg Finance L.P., UBS WM CIO, as of 2016

Meanwhile, preventing unrecoverable capital destruction has been about global diversification. All the episodes of potentially irreversible loss, due to inflations, wars, and sovereign defaults, were localized. Concentrated regional risk was, and is, investors' biggest potential wealth destroyer.

The fantastic run for equities in the past 10 years means that returns in the next 10 will likely be more muted. But stocks remain most likely to outperform all other asset classes. Long-dated bond yields still price in very low or negative real economic growth, so even modest growth should see equities providing a better return over the long run. And global diversification will remain the key means of protecting wealth. The rise of populism, uncertainty over monetary policy, and an increasingly multipolar world all require investors to mitigate country risks.

## Wealth creation

Few are forecasting a repeat of the 10% annual returns global equities have delivered since the turn of the 20th century. Global economic growth has averaged around 4% since 1950, though it is likely to be closer to 3% in the coming 50 years, according to OECD estimates. Populations are aging – the working age population has grown by 214% since 1950, but it is forecast to rise by just 38% until 2100. And the pace of productivity growth has slowed; the average annual growth rate of total factor productivity in the last four decades has been at least one percentage point lower than in the preceding five decades, according to recent academic research[4].

[3] Since S&P 500 data began in 1927

[4] *The Rise and Fall of American Growth: The U.S. Standard of Living Since the Civil War* by Robert J. Gordon

The case for equities continuing to outperform other asset classes is strong.

But I don't believe that lower returns change the likelihood of equities outperforming other asset classes. In fact, the case for equities outperforming bonds, in particular, is arguably stronger. Thirty-year real rates on government bonds are just 0.88% in the US and –0.41% in Germany. Against this backdrop, equities merely keeping pace with nominal economic growth (which they have historically exceeded by 2–4% annually through the cycle) would be sufficient to outperform cash and fixed income.

This isn't to say the ride is going to be a smooth one. Bear markets were a regular feature of the last century, and while the global index has not suffered a decline of 20% or more since 2009, it is unrealistic to assume that this can continue indefinitely.

Staying invested across the cycle has delivered superior returns to trying to time the market.

Having to wait up to 14 years for equities to regain their previous real highs might sound like a long time, but the returns from trying to navigate the cycle have been limited. Since 1936, an investor with relatively good market timing, able to consistently sell 10 months before a market peak and buy back 10 months after a trough, would still end up worse off (by 19%) than the investor who remained invested throughout the period.

Of course, maintaining the discipline to stay invested through an equity drawdown is not easy because the human instinct is to cut losses. One potential solution is private equity, which has long-term returns that should match or outperform public equities and lockups that can help protect investors from their own potentially harmful instincts.

**Avoiding wealth destruction**

The term "wealth destruction" naturally leads to thoughts of global stock market crashes like the 1930s Great Depression, or the 2008 Global Financial Crisis. But although these events were painful, they need not, in themselves, have created unrecoverable losses for most families or estates. Equity investors recovered their losses (in real total return terms) within 14 years of the 2000 peak, and even investors who bought US equities at the 2007 market top would have almost **doubled** their money in real terms by now.

Inflations, wars, sovereign defaults, and revolutions are the principal causes of permanent wealth destruction.

True wealth destruction comes from events that can *permanently* impair wealth. Aside from the things you or your family might do to destroy wealth, like spend it, divorce it, or over-leverage it, the global events that cause permanent loss have historically fallen broadly into four categories: inflations, wars, sovereign defaults, and revolutions.

Hyperinflations, typically caused by direct central bank financing of government debt, often lead to significant asset price inflation, but also real wealth destruction. For example, the Venezuelan stock market has risen 1,400,000% in local currency terms since 2007, but it has delivered a real loss in US dollars of around 10% over the entire 10-year period versus about a 90% real total return on the S&P 500 in that same time. Local cash and bonds fared even worse. 1,000,000 Venezuelan bolivars, capable in 2007 of buying USD 476,190, by now would only get you USD 155.

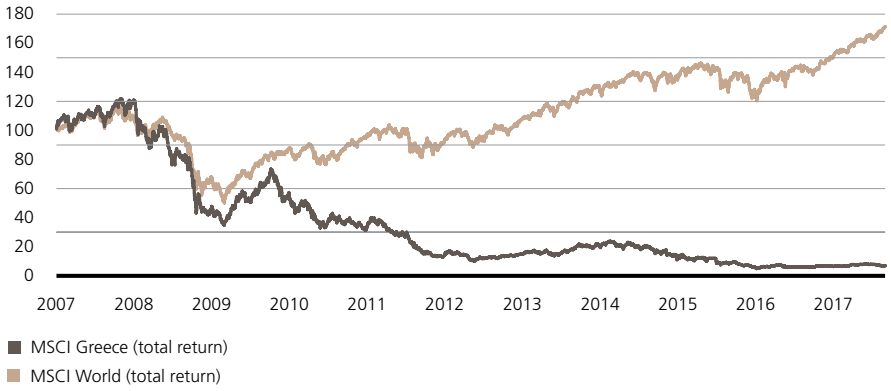
Wars have consistently brought about significant wealth destruction. Between 1942 and 1945, the German market fell by 98%, and Japanese equities by 95% in USD terms. And cash and bonds fared little better. The Deutsche mark introduced in 1948 replaced the old Reichsmark at a rate of 1 new to 10 old, wiping out 90% of private savings. In more modern conflicts, the value of the Iraqi dinar fell by 99.98% between 1990 and 2003.

Sovereign defaults can also lead to near-permanent wealth destruction. Even if Greek equities return 7% each year from now, it will be 2047 before they regain their pre-crisis nominal levels (Fig. 3). And Greek government bonds lost 76% of par value in the 2012 restructuring, and even after the recovery to date, investors would need to wait until the mid-2050s to return to par at a coupon of 3%.

In each case, investor losses could have been significantly reduced by global diversification.

**Fig. 3: Global diversification can help prevent wealth destruction**

Total returns on the MSCI Greece Index versus the MSCI World Index




Source: Bloomberg Finance L.P., UBS WM CIO, as of October 2017

Global diversification offers the best defense against irrevocable losses.

As we look ahead, amid uncertainty over central bank balance sheets, North Korea's nuclear ambitions, government debt, and the rise of populism, it looks like this century will suffer from many of the same wealth destroyers as the past one – inflations, wars, defaults, and revolutions. Indeed, with the largest countries in the world now carrying such high levels of debt and pursuing different political economies, we can no longer say with any certainty that it will be smaller nations at the periphery that are likelier to create financial disasters for themselves. But I believe investors' best defense against these irrevocable losses, in the past and the future, is the same: global diversification.

Empires may crumble, but the world doesn't end very often.

**Asset allocation**

We make no changes to our tactical asset allocation position this month.

We maintain our overweight to global equities with a moderate risk-on stance.

We are overweight global equities versus an underweight in government bonds. In recent months the equity side of the trade has provided positive performance. This month, both sides of the trade delivered positive returns, with equities and government bond yields both rising. After several months of weaker-than-expected data, recent inflation prints show signs of stabilization that have contributed to rising yields for highly rated corporate USD debt. For equities, positive momentum has been building, underpinned by growing confidence in the outlook for the global economy; the IMF, for example, recently upgraded its forecast for global growth this year and next.

Yields on two-year US Treasuries rose this month as market expectations continued to adjust to a somewhat faster pace of tightening from the US Federal Reserve (Fig. 4). The Fed's apparent willingness to look beyond near-term softness in the inflation data and act before inflation reaches its target has contributed to the move, as has speculation that a hawk may be in contention to replace Janet Yellen as Fed chair. But the main impetus behind higher yields has been the data continuing to show the underlying strength of the US economy.

In our FX strategy we are overweight the SEK versus the CHF.

In our FX strategy we are overweight the Swedish krona (SEK) versus the Swiss franc (CHF). SEK appreciated against the CHF this month, despite Sweden's parliament blocking the appointment of a relatively hawkish candidate to head the country's central bank in favor of the more dovish incumbent. Economic data has continued to back the case for tighter monetary policy, although we believe the central banks of some smaller European nations, including Sweden, have been holding back on major monetary decisions until after the European Central Bank (ECB) announces more details of its quantitative easing exit plan. We expect a decision from the ECB later this month, which should leave the Swedish central bank better positioned to tighten policy. In contrast, the Swiss National Bank should aim to take a more dovish stance than the ECB to try to weaken the Swiss franc, which it believes remains "highly valued."

**The trouble with safe havens**

Many investors I speak to look to real assets as protection against permanent wealth destruction. But real assets may not be effective. Their long-term returns are relatively weak, and they too can experience large drawdowns. We believe that a diversified mix of assets that includes equities is the best way to protect wealth over the longer term.

*Private real estate* in the US has delivered nominal average annual price returns of 3.5% since 1900 (0.5% average annual real returns). But while offering long-term returns closer to bonds, real estate shares some of the higher volatility of equites. During the global financial crisis, the S&P 500 dropped 57% while US real estate fell 27% in nominal terms. Also, because of real estate's indivisibility, illiquidity, and local nature, it is susceptible to localized disasters. Real estate can be particularly vulnerable during wars or revolutions, and typically fails to outperform overseas investments in periods of inflation or during sovereign defaults. In Greece, for example, Athens property prices since the sovereign debt crisis began in 2010 have collapsed by 40–45%, and transaction volumes have declined by 80%.[5]

So how should investors view *gold*? The metal is often viewed as a hedge against financial panics – it fared well in the immediate aftermath of the Lehman Brothers collapse and in the build-up to the Eurozone crisis. Since the US left the gold standard, the average annual return has been a positive 3.3%. But it can be unpredictable – after the Lehman Brothers collapse, its more than 20% rally was reversed within two months, even as the financial crisis worsened. It can also be vulnerable to fears of higher real interest rates. For example, after the Taper Tantrum of 2013 it fell more than 10%.

[5] *Affluent Athens suburbs suffer most from property price slump*, etkathimerini.com

We are also overweight the CAD versus the AUD.

We are also overweight the Canadian dollar (CAD) versus the Australian dollar (AUD), and expect the likely development of interest rate differentials to support the position. The Bank of Canada left the door open for further rate hikes after raising rates in September against the backdrop of the Canadian economy enjoying its strongest growth spurt in more than a decade. In contrast, the minutes of the October Reserve Bank of Australia meeting show that members are in no rush to follow rate hikes abroad and remain wary of the impact on economic activity of a "material further appreciation" in the AUD.

Within Europe we favor Eurozone equities versus UK stocks.

Within Europe we are also overweight Eurozone equities versus UK stocks. The Eurozone economy has gained momentum, and growth has extended into the periphery, more than offsetting headwinds from a stronger euro. The rate of growth in the UK continues to lag that of Eurozone peers. Barring a swift agreement on a lengthy and comprehensive transition deal between the UK and the EU, the economy is unlikely to break out of this low-growth trajectory. Despite sluggish growth, we believe the Bank of England may still hike interest rates at its next meeting in November, which is likely to support sterling and create a headwind for UK stocks.

**Fig. 4: US 2-year Treasury yields have been rising**


Source: Bloomberg Finance L.P., UBS WM CIO, as of October 2017


linkedin.com/in/markhaefele

twitter.com/UBS_CIO

Mark Haefele
Global Chief Investment Officer
Wealth Management

# Keep calm and cycle on

Jason Draho, PhD

Head of Tactical Asset Allocation Americas, UBS Wealth Management Chief Investment Office

Anniversaries of major events are times to reflect on what happened and assess the implications, if any, for today. Such is the case for the 30th anniversary of the "Black Monday" stock market crash that occurred on 19 October 1987. Its timing is apropos, occurring in the midst of another historic bull market, one in which fears of a major market correction seem to rise with each new record high. While there are some similarities to today, the differences and the lessons to take away from the '87 crash should give investors confidence that an end to the current bull market is not imminent.

**Flash re-cap**

The magnitude of the market crash on Black Monday was unprecedented. The S&P 500 fell 20.5%, which was more than double any prior one-day drop, culminating a 33% market decline that began that summer. Though the day wasn't the actual bottom of that bear market – that occurred on 4 December 1987, with the S&P 500 only one point lower – it effectively was, since equities began a steady climb higher within two months. Consequently, this event classifies as a unique bear market because the peak-to-trough decline effectively occurred over only a few months, after which the bull market resumed.

**The cycle lessons**

There still isn't a great explanation for why exactly the crash occurred when it did. The use of so-called portfolio insurance trading strategies to manage risk is believed to have amplified a sell-off into a crash, but that doesn't explain why the market initially experienced weakness. Nonetheless, a couple of observations on the crash are relevant today for assessing how long the current bull market and economic cycle can last.

First, the market crash can't be blamed on the economic cycle ending. GDP growth didn't start to materially slow until the second half of 1989 and the economy didn't go into recession until late 1990, three years after the crash. This is inconsistent with most bear markets being accompanied by a recession. Today, the US economy is firmly in the expansion stage of the cycle, with recent data indicating that growth domestically and abroad is actually accelerating. With a very low probability of a recession in the next year, the growth cycle is an unlikely candidate for this bull market to end.

Second, it's possible that Fed policy was a causal factor in the crash. Beginning in the spring of 1987, the Fed raised rates 1.25 percentage points through September, though from a starting point of 6%. The Fed then cut rates in the months after the crash, but started hiking again in March 1988, a total of 3.25 percentage points over the next year. With the Fed now raising rates and reducing its balance sheet, tighter monetary policy is the leading candidate to bring this cycle and bull market to an end. But with the Fed only just returning policy to a neutral, not a restrictive, stance, that looks like a risk for the second half of 2018 at the earliest.

**No volatility to see here**

One clear difference between the current environment and 1987 is sentiment. Investors today are far from euphoric, unlike the "greed is good" mentality back then. But the lack of frothiness has been

replaced by the concern that investors are too complacent in the face of many economic and geopolitical risks, as suggested by various measures of market volatility being at historical lows. Combine that with valuations that aren't cheap and it's reasonable to think that the bull market and the cycle are vulnerable to ending at any time.

While that's a risk, the market calm is defensible given the recent economic environment. Stock prices should only change when there is new information about expected future earnings or the risks to them. Such relevant new information about earnings generally doesn't arrive often enough to justify the level of price volatility that we typically observe in the markets. Instead, much of the volatility is the result of shifting sentiment, gaps in market liquidity, and other non-fundamental factors.

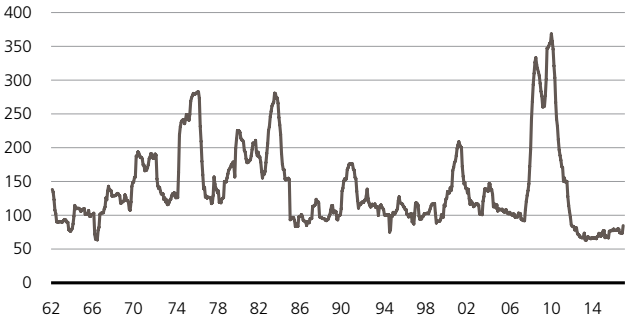
The very low price volatility this year could reflect the fact that there's been low volatility of the economic fundamentals that would warrant revised earnings expectations. For example, the volatility of monthly job growth, as measured by non-farm payrolls, has been lower over the past five years than at any other time since 1960 (Fig. 1). This consistency is also evident in the earnings of S&P 500 companies. As shown in Fig. 2, they've grown methodically (ex-Energy) since 2010, with the blip in 2016 occurring due to the fall in oil prices and rise in the dollar. This has resulted in a 4.1% volatility of quarterly earnings growth over 2011 to 2017, down from 13.7% from 2002 to 2007.

**Keep calm and cycle on**

After five years of such consistent economic and earnings growth, it's understandable why investors have become relatively sanguine. In fact, it also suggests that they've been focused on fundamentals, rather than distracted by news headlines, including retrospectives on the market crash 30 years ago. In our view, that's the right course of action: Keep calm as long as the economic cycle continues on, which looks likely for a while.

**Fig. 1: Volatility of US job growth is lower than it's ever been**

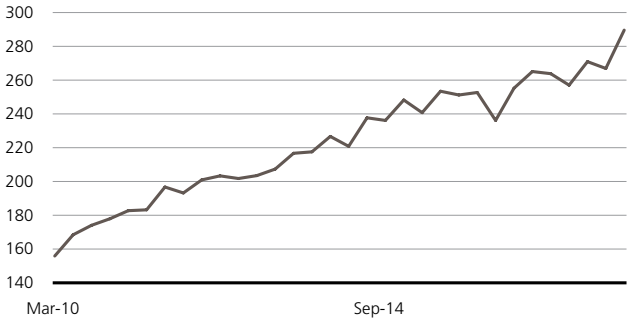
2-year rolling volatility of the change in monthly non-farm payrolls




Source: Bloomberg, UBS, as of 17 October 2017

**Fig. 2: S&P 500 (ex-Energy) companies have steadily grown earnings**

USD bn of total net income for S&P 500 companies (ex-Energy)




Note: Data for the last two quarters represent consensus estimates
Source: Factset, UBS, as of 17 October 2017

# Preferred investment views

↗ Recent upgrades
↘ Recent downgrades

| Most preferred | Least preferred |
| --- | --- |
| **Equities** | |
| • Global equities<br>• US large-cap value<br>• Eurozone | • US large-cap growth<br>• UK |
| **Bonds** | |
| | • US government bonds |
| **Currencies** | |
| • SEK<br>• CAD | • CHF<br>• AUD |
| **Cash** | |

As of 19 October 2017

# At a Glance

## Economy

An improvement in a number of key business cycle indicators, including the strongest US Institute for Supply Management (ISM) Manufacturing reading since 2004 and the lowest US unemployment rate since 2001, is supporting our view that the economic backdrop remains robust. We are keeping a tactical overweight in global equities against US government bonds, as we believe the cycle has further room to run. The European Central Bank (ECB) is likely to announce an extension of its quantitative easing (QE) program in late October. Our base case is for asset purchases to be extended by nine months at a reduced pace of EUR 20-40bn a month.

## ⊕ Equities

Within Europe, we maintain our overweight position in Eurozone equities vs. UK stocks. Leading domestic economic indicators in the Eurozone remain very strong and support domestically generated earnings growth. Also, the Eurozone is in a position to benefit strongly from its high gearing to the global business cycle. Meanwhile, UK companies' earnings growth should decelerate over the coming months.

## ⊖ Fixed income

We think equities provide better risk-adjusted returns than credit at this stage of the business cycle. We don't see much upside from credit given current valuations. We believe the Fed will hike rates more quickly than the market is pricing. Consequently, we expect short-term yields to rise as the market adjusts to a more realistic pace of Fed rate hikes.

## Foreign exchange

Within our FX strategy, we remain overweight the Canadian dollar (CAD) against the Australian dollar (AUD). We expect the Bank of Canada to continue to raise rates over the coming months given robust economic growth. Higher US Treasury yields and moderating Chinese activity should pressure the AUD, and we don't expect the Reserve Bank of Australia to raise rates until later next year. We remain overweight the Swedish krona (SEK) against the Swiss frank (CHF). We expect Sweden's Riksbank to become more hawkish in the coming months due to strong growth and firming inflation.

# Month in Review

Spain's Catalan-region protests took over from North Korea as the headline-grabbing risk this month, following an informal independence vote on 1 October. Spanish stocks dropped and the German-Spanish bond yield spread widened amid fears that the region would call for independence from Spain. Catalan leader Carles Puigdemont shied away from a formal declaration of independence and instead called for negotiations with the Spanish government.

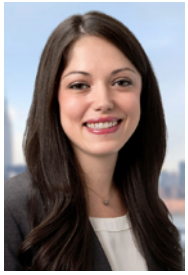
US equity markets remained resilient to global political events including the Catalan protests and rising diplomatic tensions between the US and Turkey, with the S&P 500 sitting at a new record high as of this writing.

Solid economic data and the revival of pro-growth policy expectations continued to fuel equities. While markets have responded favorably to the outlines of new tax cuts from the Trump administration, the economy has held up on its own with the unemployment rate, manufacturing and non-manufacturing purchasing managers' indexes, and consumer sentiment all at their best levels in more than a decade.

FOMC minutes released this month showed that while members are debating whether low inflation might last longer than expected, they still believe a tight labor market will eventually lead to higher inflation. Fed Chair Janet Yellen indicated that it would be "imprudent" to wait until inflation was back at 2% before raising interest rates again.

## What's new this month?

# New cancer treatments inspire hope



**Laura Kane, CFA, CPA**
Head of Investment Themes Americas

**Matthew DeMichiel**
Thematic Strategist Americas

In the US, October is **National Breast Cancer Awareness Month,** a month dedicated to inspiring hope in those affected by breast cancer and encouraging adoption of early detection measures. This month, we explore a hopeful and exciting new class of treatment first approved by the FDA in September to treat another form of cancer – acute lymphoblastic leukemia (ALL), the most common childhood cancer. The treatment, **Chimeric Antigen Receptor T cells** or **CAR-Ts,** is notable because it was the first approved treatment of its kind to use a personalized approach employing the immune system to directly target cancer cells. Now, in October, a second CAR-T has been approved to treat a specific form of non-Hodgkins lymphoma (NHL). These treatments should prove to be positive development in oncology and an important theme in medicine going forward.

Although still in its infancy, CAR-T treatments have shown remarkable potential in clinical trials for combatting certain blood borne cancers, such as leukemia and lymphoma. Further, many believe that variations of CAR-Ts may be able to combat other cancers and immune diseases in the future. In the US, the incidence of cancer has been trending downward since the early 1990s, largely due to a lower incidence of lung and prostate cancer. However, in absolute terms, more people are affected and dying from cancer now than ever before due to **population growth** and **aging.**

CAR-Ts work by altering a patient's T cells – a type of white blood cells – to target a designated cancer cell antigen. The process works by attaching a cancer-specific receptor to a T cell in order to produce a targeted attack. During the treatment, the engineered T cells hone in and destroy cancer cells while ignoring normal tissue. Currently, there are a handful of CAR-T treatments and related technologies in the pipeline. Pharmaceutical companies are expected to continue to innovate with CAR-T and aim to treat a wide range of cancers and other immune diseases.

While there is deservedly considerable optimism surrounding CAR-Ts, there are some potential short-term headwinds that could hinder widespread adoption. These hurdles include the commercial manufacturing process, determination of the best stage for treatment, high costs, and associated side effects. Initially, CAR-Ts will be used as a last resort treatment and only be available to a small subsection of the patient population. However, with time, we expect use to expand. Additionally, since CAR-Ts are designed for a single treatment, they come with a large price tag. For example, Novartis' treatment *Kymriah* is priced at USD 475,000 a dose. To address pricing concerns with regulators and insurers, pharmaceutical companies are introducing a new type of payment scheme called **outcome-based pricing** where the patient will only pay if the treatment meets minimum efficacy. Lastly, CAR-T treatment may result in acute side effects that require in-patient monitoring. Pharmaceutical companies are looking to improve upon these effects in future generations.

CAR-T has gained momentum over the last couple of years with the first treatments finally coming to market.

Even though CAR-Ts are limited to a small subsection of blood borne cancers at this time, we believe future iterations may provide treatment for various tissue cancers and other immune diseases, creating a new and potentially substantial source of revenue for participating pharmaceutical companies. Two of our themes with exposure to oncology include our *Major advances in cancer therapeutics* stock list and our *Oncology Longer-term Investment.*

**Themes universe updates for this month:**
*Smart mobility LTI (NEW)* Over the next decade, we expect smart mobility to grow substantially, revolutionizing not only the automobile industry but also the way vehicles are 'consumed.'

# Themes universe

## LONGER-TERM INVESTMENTS

### Technology

**Automation and robotics**
A fourth industrial revolution is underway, which we believe will transform the future of manufacturing.

**E-commerce**
E-commerce is altering the retail landscape and omnichannel companies should lead the way forward.

**Mass transit rail**
Rapid urbanization in Asia will strain mass transit systems, providing opportunities for infrastructure investment over the long term.

**Medical devices**
The medical device industry has matured but opportunities exist for increased penetration in emerging markets (EMs) where affordability is on the rise.

**Oncology**
Advances in cancer therapeutics will create new multi-billion dollar opportunities for successful drugs.

**Security and safety**
Growing trends such as urbanization, digital data growth, and increased regulation support demand for security and safety.

**New Smart Mobility**
Global urbanization will call for structural changes in technology that will alter the way we "consume" mobility in the coming decades.

**Transformational technologies**
Digital data, automation, cyber security, and wireless innovation are disruptive forces that are transforming the economy.

### Resources

**Agricultural yield**
The world faces a growing food production crisis as the global population increases. Companies that help to boost agricultural yields stand to benefit.

**Clean air and carbon reduction**
Rising populations and urbanization are fueling the need for clean-air technologies. Solution providers targeting emissions reductions stand to benefit.

**Energy efficiency**
Stricter regulation and corporate competition to improve product efficiency are driving demand for energy-efficiency solutions.

**North American energy independence**
As North America trends toward energy independence, we believe certain energy-related sectors stand to benefit.

**Renewables**
Increasing energy demand from urbanization and population growth will benefit renewable energy as lower costs drive competitiveness with fossil fuels.

**Waste management and recycling**
Low waste treatment rates in EMs offer big catch-up potential that could lead to extraordinary growth rates.

**Water scarcity**
Water scarcity is one of the biggest risks to mankind. If limited water resources can be better harnessed, the benefits could be enormous.

### Society

**Baby Boomers**
As Baby Boomers age and retire, we expect various segments of the economy to benefit disproportionately.

**Education services**
With limits to many governments' education resources, there is increased opportunity for the private education market.

**Emerging market healthcare**
An aging EM population requires stepped-up investment in healthcare. We believe global healthcare companies can benefit.

**Emerging market infrastructure**
Growing urbanization and high economic growth rates will drive demand for infrastructure investment in EMs.

**Generics**
As healthcare costs grow, government policy and demographics will be important drivers of increased generic drug sales.

**Obesity**
Urbanization and rising per-capita GDP in EMs will contribute to an ever-greater prevalence of global obesity.

**Retirement homes**
A larger population of seniors and evolving social trends support opportunity in retirement homes investment.

**Retirement planning**
Changing demographics are increasing demand for retirement planning, benefiting wealth and asset managers.

**The rising Millennials**
Given Millennials' sheer size, we believe this demographic will have an outsized impact on the US economy.

**KEY**

- Sustainable longer-term investment theme
- Longer-term investments = Multi-business cycle
- Shorter-term investments = Current business cycle

## SHORTER-TERM INVESTMENTS

### Fixed income

**Beyond benchmark**
By diversifying fixed-income exposure investors can avoid the shortcomings of heavily government-weighted taxable fixed-income benchmarks.

**MLP bonds**
Master limited partnership bonds offer attractive coupon income relative to other investment grade sectors.

**Mortgage interest-only securities**
Mortgage interest-only securities offer the opportunity to benefit from rising interest rates along with attractive yields and high credit quality.

**US senior loans**
Senior loans offer attractive floating-rate coupons with low correlation to other asset classes and lower volatility than high-yield bonds.

### Equity

**Event-driven strategies**
Equity-driven strategies can represent attractive ways to capitalize on companies' corporate actions.

**Finding value in EM**
Recovering EM economic growth and higher commodity prices should support EM value outperformance relative to broader EM equities.

**Restructuring and turnarounds**
Certain companies undergoing restructuring may outperform the broader market in the coming years.

**US technology**
The US technology sector currently trades at attractive valuations given secular growth opportunities within the sector.

### Equity–ESG

**Gender lens**
Evidence suggests that gender-diverse companies are more profitable and tend to outperform their less-diverse peers.

**Sustainable value creation in EM**
Incorporating environmental, social, and corporate governance considerations into EM equity investment decisions may provide a competitive edge.

*For guidance on how to invest in each of the themes on this page, please contact your Financial Advisor.*

# Global economic outlook

In most major economies, conditions are stronger than at any point since the global financial crisis. While monetary policy remains extremely accommodative globally, more central banks are gradually moving toward normalization even as inflation remains low. In the US, we expect the Federal Reserve to continue gradually raising interest rates while shrinking its balance sheet. The strong labor market will support consumer spending and businesses should increase investment spending.

Global growth in 2017 expected to be 3.7 %

| | Real GDP growth in % | | | Inflation in % | | |
|---|---|---|---|---|---|---|
| | 2016 | 2017F | 2018F | 2016 | 2017F | 2018F |
| US | 1.5 | 2.1 | 2.3 | 1.3 | 2.2 | 2.1 |
| Canada | 1.5 | 2.5 | 2.0 | 1.4 | 1.9 | 2.0 |
| Brazil | -3.6 | 0.5 | 3.1 | 8.7 | 3.4 | 3.5 |
| Japan | 1.0 | 1.8 | 1.8 | -0.1 | 0.5 | 1.3 |
| Australia | 2.5 | 2.3 | 2.7 | 1.3 | 2.0 | 2.1 |
| China | 6.7 | 6.8 | 6.4 | 2.0 | 1.6 | 2.0 |
| India | 7.1 | 6.6 | 7.4 | 4.5 | 3.5 | 4.0 |
| Eurozone | 1.8 | 2.0 | 1.6 | 0.2 | 1.5 | 1.4 |
| Germany | 1.9 | 2.1 | 1.7 | 0.4 | 1.7 | 1.9 |
| France | 1.1 | 1.7 | 1.7 | 0.3 | 1.1 | 1.3 |
| Italy | 1.0 | 1.3 | 1.0 | 0.0 | 1.4 | 1.2 |
| Spain | 3.2 | 3.1 | 2.3 | -0.3 | 1.9 | 1.0 |
| UK | 1.8 | 1.4 | 0.7 | 0.7 | 2.6 | 2.8 |
| Switzerland | 1.4 | 0.8 | 1.8 | -0.4 | 0.5 | 0.6 |
| Russia | -0.2 | 1.6 | 1.7 | 7.0 | 3.8 | 3.8 |
| World | 3.1 | 3.7 | 3.8 | 2.6 | 2.7 | 2.7 |

Source: Reuters EcoWin, IMF, UBS, as of 19 October 2017
Note: In developing the CIO economic forecasts, CIO economists work in collaboration with economists employed by UBS Investment Research. Forecasts and estimates are current only as of the date of this publication, and may change without notice.

## Central bank policy

**Brian Rose, PhD**
Senior Economist Americas

**Ricardo Garcia-Schildknecht**
Economist

### House view

Probability: 75%

**Policies tighten gradually**
The Fed started reducing the size of its balance sheet in October by not reinvesting all of the proceeds of maturing bond holdings. An interest rate increase in December is more likely than not as technical distortions to the headline inflation data have faded. Vacancies at the Fed and the question of whether Fed Chair Yellen will stay add an element of uncertainty to US central bank policy in 2018.

### ↗ Positive scenario

Probability: 10%

**Additional policy easing**
The Fed falls further behind the curve as US inflation surprises higher, with real interest rates slipping more rapidly. The European Central Bank (ECB) launches additional policy easing, reversing the language of recent public announcements and signaling a stronger emphasis on the potential to ease policy further. The Bank of Japan comes under pressure to engineer currency depreciation.

### ↘ Negative scenario

Probability: 15%

**More rapid policy tightening**
The inflation effect of a tighter US labor market leads to a stronger Fed response and a combination of tight monetary policy and loose fiscal policy over the course of 2018. Increased labor market costs and some commodity price pressures lead to higher European inflation, generating early signs of a more rapid tapering of ECB quantitative easing.

# Political risks

**Paul Donovan**
Global Chief Economist, WM

## House view

Probability: 70%

The immediate US concerns focus on tensions within the administration and the likely extent of tax cuts that can be passed by Congress. In Europe, German coalition negotiations and the German reaction to French President Macron's EU / Eurozone reform proposals both are relevant to investors. Regional tensions in Spain have not created a significant market impact to date, but anecdotal evidence of bank deposit flight from Catalonia has parallels to the earlier Scottish independence referendum. Negotiations regarding the UK's exit from the EU are unlikely to progress much before December. North Korea remains a key international political risk for the near term. Markets are unlikely to attribute any meaningful probability to disaster scenarios in spite of the increased tweeting on the subject.

## ↗ Positive scenario

Probability: 10%

The sharp improvement in labor market conditions for low-skilled workers leads to wage increases that either are accompanied by better credit access or compensate for the loss of credit access since 2008; this eases income and consumption inequality. Governments and economists successfully communicate the net economic benefits of global trade and diversity.

## ↘ Negative scenario

Probability: 20%

Nationalist tendencies are encouraged by single-issue politics and social media. Traditional party structures fail to address the demands of large sections of the electorate, encouraging populism. Political outcomes are increasingly unpredictable as opinion polls offer even less guidance. Established parties adopt populist policies, raising uncertainty about mainstream policy programs. Lower income groups' standards of living are hurt by populist policies and rising food and energy prices.

# Healthy US profit growth

**Jeremy Zirin, CFA**
Head, Investment Strategy, WMA

**David Lefkowitz, CFA**
Senior Equity Strategist

## House view

Probability: 60%

**Earnings growth on solid footing; tax reform offers upside**
The earnings growth outlook remains healthy, driven by solid US consumer spending, strong US manufacturing activity (as energy investment spending and emerging market demand bottom out), and a more favorable environment for financials. Leading indicators of profit growth, such as bank lending standards and capital spending intentions, remain supportive. The Trump administration's policies may further boost earnings growth through lower taxes (corporate, individual, and the repatriation of overseas cash), infrastructure spending, less regulation, and a steeper yield curve (which benefits banks).

## ↗ Positive scenario

Probability: 20%

**Trump's policies boost earnings more than expected**
The Trump administration's policies, especially corporate tax reform, generate faster profit growth. Higher interest rates and deregulation further boost financial sector earnings. Investment spending picks up.

## ↘ Negative scenario

Probability: 20%

**Downturn in sentiment**
Trade and geopolitical tensions flare up as a result of the Trump administration's policy priorities, depressing business and consumer sentiment. Wage pressures, without improving consumer and business demand, may hurt profit margins and earnings growth rates. Persistently low short-term interest rates and renewed declines in long-term interest rates may pressure financial sector earnings.

# Key dates

27 October 2017
**GDP for 3Q17**
The economy continued to expand at a moderate pace in the third quarter. Disruptions caused by hurricanes will have a negative impact and also introduce an extra degree of noise into the data, making it difficult to interpret.

30 October 2017
**Personal income and spending for September**
In addition to the important data on income and spending, this report includes the personal consumption expenditures price index – the Fed's preferred inflation measure, which should remain subdued.

1 November 2017
**FOMC rate decision**
Having announced the start of its balance sheet adjustment program at its September meeting, the Fed is unlikely to take any additional actions this time. Markets will carefully examine the FOMC statement for hints about a possible December rate hike.

1 November 2017
**ISM Manufacturing for October**
Conditions in the manufacturing sector have improved this year and this has been reflected in the ISM Manufacturing PMI. Extra demand for goods used in hurricane recovery efforts and stronger global growth are providing a tailwind.

3 November 2017
**Labor report for October**
Nonfarm payrolls declined in September due to hurricane-related disruptions. With most businesses up and running again, we expect to see a strong rebound in the October data.

# Equities

Jeremy Zirin, CFA; David Lefkowitz, CFA; Markus Irngartinger, PhD, CFA

Global equity markets continued their strong performance over the past month. With accelerating global economic growth driving revenues and earnings higher, we believe that global equity markets can continue to trend upward. Thus, we remain overweight global equities vs. US government bonds. However, with central banks globally pulling back from very accommodative policies and a potential inflection toward higher inflation, equities could experience increased market volatility, while returns could be lower.

## Eurozone

overweight

We are overweight Eurozone equities, which should benefit from improving domestic growth as leading indicators stay at high levels. Moreover, due to cyclical sector exposure, company earnings should be supported by the solid global economic backdrop. Valuations are still slightly below their long-term average. The recent consolidation of the euro should aid export-oriented companies, and distress from the Catalonia political upheaval should eventually fade. The ECB is likely to withdraw any stimulus in 2018 only very gradually. Our most preferred sectors are energy, financials and telecoms.

| **EURO STOXX** (index points, current: 392) | Six-month target |
|---|---|
| **House view** | **405** |
| ↗ Positive scenario | 450 |
| ↘ Negative scenario | 325 |

## Japan

neutral

We are neutral on Japanese equities. We forecast mid-single-digit earnings growth in FY17 (which ends in March 2018) after earnings grew 14% in FY16. We expect USDJPY to remain largely flat around 110 for the next 12 months. Currency movements are therefore unlikely to support corporate earnings. However, we believe the downside risk for the Japanese equity market is limited due to relatively large equity purchases by domestic investors like the Bank of Japan. We prefer banks, high dividend stocks and companies that benefit from the tightening labor market.

| **TOPIX** (index points, current: 1725) | Six-month target |
|---|---|
| **House view** | **1775** |
| ↗ Positive scenario | 1950 |
| ↘ Negative scenario | 1450 |

## Emerging markets

neutral

We are neutral on emerging market equities in our global portfolio. EM economic activity and manufacturing sentiment are improving. Corporate earnings growth is picking up across EM regions. EM equities are trading at a discount to their developed market counterparts. Geopolitical tensions, potential trade friction, rising US bond yields and USD strength are downside risks. Our most preferred markets are China, Indonesia, Thailand, Russia, and Turkey; our least preferred markets are Taiwan, Malaysia, and the Philippines.

| **MSCI EM** (index points, current: 1127) | Six-month target |
|---|---|
| **House view** | **1165** |
| ↗ Positive scenario | 1300 |
| ↘ Negative scenario | 970 |

## UK

underweight

We underweight the UK against Eurozone equities. With the prospect of the Bank of England raising rates this year and a continuation of Brexit negotiations, the pound recovered from its 2016 lows. Thus, MSCI UK is barely benefiting from a currency tailwind. The UK's defensive sector tilt leaves it less leveraged to the global recovery than Eurozone equities, while the slowing UK economy holds back the 30% exposure of the FTSE 100 to domestic revenues. UK earnings growth for 2017 should be heavily driven by commodities; however, this is unlikely to carry through into 2018.

| **FTSE 100** (index points, current: 7543) | Six-month target |
|---|---|
| **House view** | **7700** |
| ↗ Positive scenario | 8450 |
| ↘ Negative scenario | 6500 |

Note: Current values as of 18 October 2017

# US equities

We expect US equities to continue to rise, but at a slower pace. This year stocks have benefited from robust corporate profit growth and falling inflation – a very equity-friendly backdrop. Now, however, profit growth is slowing to a more sustainable pace and inflation is firming. This is still a favorable environment for stocks but a bit less so. Valuations appear fair given moderate growth and low interest rates. We retain our preference for value over growth stocks. Our preferred sectors are energy, technology, and financials.

## US equities overview

neutral

US stocks should continue to benefit from high single-digit growth in corporate profits in the quarters ahead. However, insurance losses from the recent hurricanes should crimp 3Q S&P 500 profits by 2-3%. We look for 7-9% growth excluding these costs. Tax reform is getting more attention but, based on the relative performance of stocks with high tax rates, we believe the market remains skeptical. Virtually all of the gains since the election have been driven by better corporate fundamentals, not the prospect of tax reform. As a reminder, buying at a record high has not led to lower than normal returns over the subsequent three years. Our six-month S&P 500 price target is 2,600.

## US equities—sectors

Energy stocks have rebounded over the last two months as oil inventories continue to decline and energy companies place even greater emphasis on returns rather than growth. We remain overweight given still-low energy sector valuations and our expectations for further oil price gains. Strong earnings growth and reasonable valuations for tech stocks support our moderate overweight. We expect financials to benefit from gradually rising short- and long-term interest rates, while utilities and consumer staples (both underweight sectors) face valuation challenges in such an environment.

## US equities—size

After underperforming most of the year, small-caps have regained ground over the last two months. As a result, all three size benchmarks (large-, mid- and small-) have generated similar year-to-date returns. We believe this makes sense and have no preference across size cohorts. Large-caps should benefit from the current market environment (later cycle, earnings growth decelerating) but tax reform could give small-caps a significant boost.

## US equities—style

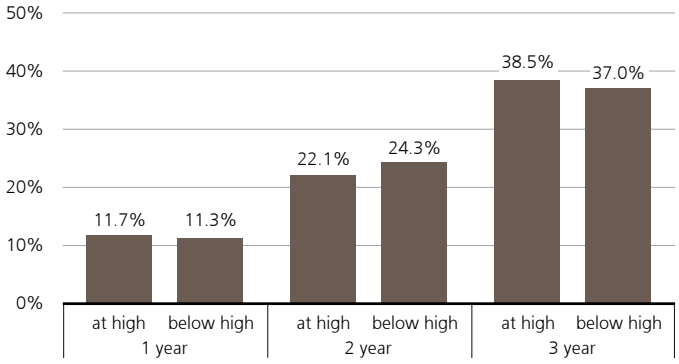
Growth stocks have been the standout winners this year but value stocks look poised to regain some lost ground. Valuation of value stocks look attractive, in our view. In addition, accelerating global economic growth, rising interest rates, and/or rebounding oil prices should all support fundamentals for value-oriented US market segments.

| **S&P 500** (index points, current: 2561) | Six-month target |
|---|---|
| **House view** | **2600** |
| ↗ Positive scenario | 2925 |
| ↘ Negative scenario | 2100 |

Note: Current values as of 18 October 2017

**Fig. 1: No reason to fear record highs**

Avg. forward S&P 500 total return when stocks are either at or below all-time highs, since 1960




Bloomberg, UBS, as of 18 October 2017

**Fig. 2: Companies with high tax rates have given up their relative gains**

Performance of companies with high tax rates relative to the S&P 500


FactSet, UBS, as of 18 October 2017

# Bonds

Leslie Falconio; Kathleen McNamara, CFA, CFP; Barry McAlinden, CFA; Philipp Schoettler; Frank Sileo, CFA

Yields continued rising last month with markets pricing a higher likelihood of tax cuts and Fed Chair Yellen signaling an intention to continue with gradual rate hikes. We expect yields to move higher and the yield curve to flatten as monetary policy normalization proceeds. We believe the FOMC will hike more than the market is pricing. The biggest risk to our view is continued below-target inflation. Other risks include US political instability, escalation with North Korea, and a slowing Chinese economy.

## Government bonds

underweight

The US Treasury market maintains its range-bound trend as we await the impact of the Fed's balance sheet and the announcement of a new Fed chair. Our forecast remains for the 10-year yield to reach 2.5% by year end, slightly above the market consensus of 2.42%. The 30-year Treasury has outperformed the intermediate part of the interest rate curve as low inflation and overseas demand dominate flows. We anticipate higher volatility heading into the last two months of the year.

| **US 10-YEAR YIELD** (current: 2.3%) | Six-month target |
|---|---|
| **House view** | **2.5%** |
| ↗ Positive scenario | 1.8-2.0% |
| ↘ Negative scenario | 2.8-3.2% |

## US high yield corporate bonds

neutral

Spreads continued to tighten over the month, compressing by 20 basis points, more than offsetting the rise in US Treasury yields. Supportive factors include growing optimism on tax reform, a rising oil price, and still-low volatility rates. We are neutral on HY bonds as we see limited potential for spread tightening. The trailing 12-month default rate fell to 1.7% in September, the lowest level since March 2014 and we expect it to remain steady. Senior loans should benefit as the Fed's continued gradual path of rate hikes get reflected in higher floating-rate coupons.

| **USD HY SPREAD** (current: 346bps*) | Six-month target |
|---|---|
| **House view** | **380–420bps** |
| ↗ Positive scenario | 300bps |
| ↘ Negative scenario | 1,100bps |

*Data based on BAML High Yield indexes

Note: Current values as of 18 October 2017

## US investment grade corporate bonds

neutral

US IG credit spreads have tightened to the lowest level since 2007, partly compensating for the rise in US Treasury yields over the past month. We think spreads are now close to the bottom for this cycle. On the other hand, a meaningful widening is also unlikely over six months as corporate fundamentals remain solid and global demand is still strong. We therefore remain neutral on IG, favoring financials (US banks) over non-financials. Although higher spreads are available in longer maturity bonds, we recommend investors remain within ten years.

| **US IG SPREAD** (current: 102bps*) | Six-month target |
|---|---|
| **House view** | **100–120bps** |
| ↗ Positive scenario | 90bps |
| ↘ Negative scenario | 275bps |

*Data based on BAML IG corporate index

## Emerging market bonds

neutral

EM credit has delivered high-single-digit total returns this year on the back of both tighter spreads and lower Treasury yields. We expect support for EM sovereign debt from ongoing improvements in fundamentals, recovering energy prices, and a benign external backdrop but anticipate some spread widening in EM corporates given their pricier valuations. Risks associated with US monetary and fiscal policy, global trade, immigration, and geopolitics remain sources of concern. We remain neutral on EM credit in globally diversified portfolios and favor select high-yield credits.

| **EMBIG div / CEMBI div SPREAD*** (current: 281bps / 259bps) | Six-month target |
|---|---|
| **House view** | **300bps / 280bps** |
| ↗ Positive scenario | 270bps / 260bps |
| ↘ Negative scenario | 500bps / 530bps |

*JPMorgan Emerging Market Bond Index Global / JPMorgan Corporate Emerging Bond Index

## Municipal bonds

neutral

The broad based muni market has performed relatively well after powerful hurricanes. Month-to-date through 19 October 2017, munis gained 0.6%, lifting their year-to-date return to over 5%. By comparison, US Treasury securities posted softer results over the same time (+2.5%). In 4Q17, positive net supply and tax reform discussions may prompt market volatility. In credit, Puerto Rico prices fell precipitously as investors concluded that recovery values on territorial debt will decline. Current AAA 10-year muni-to-Treasury yield ratio: 84.1% (last month: 85.4%).

## Non-US developed fixed income

neutral

Over the past month, European developed bond markets experienced small positive returns as rates drifted lower. Yields fell as the ECB sounded more dovish in its plans to taper its QE bond purchases in 2018. The US dollar has stabilized against other major currencies, and is likely to stay in a range over the next few months. Non-US bond yields remain at very unattractive levels. We do not recommend a strategic asset allocation position on the asset class.

# Additional US taxable fixed income (TFI) segments

## Agency bonds

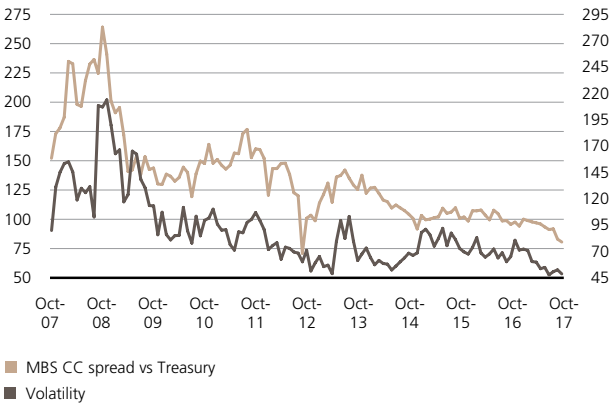
Agency spreads continue to trend in a range-bound manner, offering investors little in terms of yield vs. other safe haven assets such as mortgage-backed securities (MBS). Although the rise in volatility that we anticipate as we enter into the end of the year may be a positive for agency debt, the current trends in the investment grade markets, whether IG or MBS, will most likely result in continued outperformance. Current spread is +12bps to the 5-year (vs. +10bps last month).

## Mortgage-backed securities (MBS)

Balance sheet normalization is underway this month and the impact to the mortgage market is initially not what investors would have expected. Current coupon MBS have reached multi-year tights in spreads vs. Treasuries even as new supply hits the market. The continued tightening in IG corporates is one reason MBS spreads have held in. Currently MBS remain rich to Treasuries but cheap to IG corporates. Current spread is +80bps to the 5-year and 10-year Treasury blend (vs. +89bps last publication).

**MBS Current coupon spread to Treasuries reaches multi-year tights as volatility declines**

MBS CC spread, in bps (lhs); Volatility (rhs)




Source: Bloomberg, UBS, as of 18 October 2017

## Preferred securities

We have a slight underweight view on preferreds. Range-bound interest rates and tighter spreads have supported the sector throughout 2017. Additionally, 25 par preferreds have received added support from strong ETF inflows (ETFs mostly invest in USD 25 pars). However, at current levels, prospects for further spread tightening are limited and a material drop in rates is unlikely. Monetary policy may contribute to volatility in interest rates, credit spreads, and ETF flows. Therefore, we believe that a pullback is quite possible in the months ahead.

## Treasury inflation-protected securities (TIPS)

Despite the increase in energy prices as a result of the recent hurricanes, September CPI printed below market expectations. As a result, the recent outperformance of TIPS vs. US Treasuries has stalled. Although the recovery in 5-year break-even inflation rates from the 1.55% low to a 1.83% high since June is nothing to ignore, the recent retracement in the consumer price index will keep a lid on the rise in the break-even inflation rate. Current 5-year break-even inflation rate of 1.74% (1.73% last month).

Note: Current values as of 18 October 2017

**UBS CIO interest rate forecasts**

| Americas | 18-Oct-17 | 3 mths | 6 mths | 12 mths |
|---|---|---|---|---|
| USD 3M Libor | 1.3 | 1.6 | 1.6 | 1.9 |
| USD 2Y Treas. | 1.5 | 1.6 | 1.8 | 2.0 |
| USD 5Y Treas. | 1.9 | 2.1 | 2.2 | 2.3 |
| USD 10Y Treas. | 2.3 | 2.5 | 2.5 | 2.5 |
| USD 30Y Treas. | 2.8 | 3.1 | 3.1 | 3.1 |

Source: UBS, as of 18 October 2017

# Commodities and other asset classes

Dominic Schnider, CFA, CAIA; Giovanni Staunovo; Thomas Veraguth; Wayne Gordon

All things considered, this year has been another positive one for commodities. Our benchmark, the UBS CMCI Total Return Index, is up 2% year-to-date. And if things remain relatively steady for the remainder of the year, this would mark the first consecutive years of gains since 2009-2010. That said, performance has been heavily skewed to industrial and precious metals and livestock this year. Better performance in spot energy prices, until recently, has been chewed up by rolling costs; likewise for agriculture, as weather scares failed to have any lasting impact on North and South American crop production.

## Commodities

neutral

**Precious metals** We have argued that gold provides insurance value by helping investors protect against flare-ups in geopolitics or any sharp gyrations in equity market volatility. Once again this approach has proven its worth this year. Since we expect the Fed to hike interest rates in December, we believe this will prompt the gold price to fall further in the near term, to or eventually below USD 1,250/oz in 4Q17. As we still believe that gold remains an attractive insurance asset, price setbacks over the coming months could be used to add exposure to the yellow metal.

| **GOLD** (current: USD 1,281/oz) | Six-month target |
|---|---|
| **House view** | **USD 1,250/oz** |
| ↗ Positive scenario | USD 1,400/oz |
| ↘ Negative scenario | USD 1,100/oz |

**Crude oil** Strong oil demand and muted supply growth on the back of high OPEC+ compliance and modest US supply growth have sent Brent crude oil prices to the highest level since July 2015. With supply growth likely to lag demand growth again in 4Q17, we expect the oil market to remain under-supplied by more than 0.5mbpd in 4Q17. Hence, we expect Brent to trade in a USD 55–60/bbl range in 4Q17. The key risk to our positive view is a breakdown in the OPEC deal. We assign a 20–30% probability to such an outcome, which could translate into a short-term price drop to USD 30–35/bbl.

| **BRENT** (current: USD 58.2/bbl) | Six-month target |
|---|---|
| **House view** | **USD 60/bbl** |
| ↗ Positive scenario | USD 65-70/bbl |
| ↘ Negative scenario | USD 35-40/bbl |

**Base metals** Fueled by firmer Chinese economic activity and supply-side measures, base metal indexes are up by more than 20% this year. While broad-based momentum may push prices even higher in the short term, we believe most metals will find it difficult to sustain higher prices over the next 6-12 months. We advise investors to curb exposure to metals like zinc, lead or nickel. Existing long positions in copper can be kept for now. Increasing exposure to tin or aluminum is still attractive, in our view.

**Agriculture** For grains, weather remains the focus as Brazil and Argentine summer planting begins. Northern Hemisphere harvests are in full swing, and market expectations are for above-average yields in corn and soybeans particularly. Northern Hemisphere cotton crops are also anticipated to be abundant despite some losses and quality downgrades due to hurricanes in the Southern US. Sugar production remains solid globally, and we expect greater EU exports this year, which should cap any price upside.

## Other asset classes

**Listed real estate** Earnings growth may fall below 5% p.a. (ex. emerging markets) in 2017, 2018 and 2019 due to a lack of external growth opportunities. Companies will thus focus on internal growth, positive rental reversion, and still-diminishing refinancing costs. The real estate cycle has matured since peaking in mid-2015. We do not expect a re-acceleration in property fundamentals amid meager demand prospects and growing supply. Higher risk spreads in the future may hurt if they are not met with accelerating rental growth. The dividend yield below 4% is a key driver, as real estate has delivered no price return for the past three years.

| **RUGL Index** (current: USD 4,883) | Six-month target |
|---|---|
| **House view** | **USD 4,650** |
| ↗ Positive scenario | USD 4,900 |
| ↘ Negative scenario | USD 4,200 |

Note: Current values as of 18 October 2017

# Foreign exchange

Thomas Flury, Strategist

We retain an overweight position on the Swedish krona (SEK) vs. the Swiss franc (CHF). We believe the SEK will appreciate as investors are attracted to currencies that benefit when the European economy is doing well. We are also overweight the Canadian dollar (CAD) against the Australia (AUD). Recent comments by the Bank of Canada (BoC) led to a change in market expectations. From the initial expectation that only the 50 basis points (bps) of rate cuts from early 2016 would be undone, we and most market watchers now expect a normal hiking cycle.

## USD

neutral We want to see how the US administration passes its first budget, tackles the debt ceiling, and deals with tax reform. These outcomes remain just as uncertain as the nomination of the next Federal Reserve Chair. Many investors are still running above-average USD positions and should therefore go on unwinding the USD on rallies.

## EUR

neutral The next few months could get a little complicated for EURUSD. We are waiting for the European Central Bank (ECB) to announce its tapering plans – most likely on 26 October. Tapering has to take place eventually, but it will be interesting to see how soft or hard the ECB will orchestrate the end of QE. We think EURUSD rising above 1.20 will be politically sensitive. We expect it to stabilize in the 1.15-1.20 range over the coming six months.

## GBP

neutral UK economic data has weakened only slightly, supported by a highly undervalued pound. We still expect Brexit negotiations to eventually agree to terms that prevent a "cliff" situation when leaving the EU. However, there can be short-term spikes in risk sentiment if negotiations stall, which could weaken the pound. Rising chances of a Bank of England rate hike should keep GBPUSD around 1.36, though.

## CHF

underweight The Swiss National Bank will likely try to stabilize the combined value of USDCHF and EURCHF. Safe-haven flows have started to leave Switzerland since the French election. We expect USDCHF to remain in a 0.95-1.00 range. We retain an overweight position in the SEK versus the CHF.

## JPY

neutral The Bank of Japan (BoJ) is likely to stay with its expansionary monetary policy and not follow the Fed or the ECB on their path to normalization. The rise in global yields has pushed Japanese 10-year yields above zero, and a further increase could force the BoJ to step up its bond purchases to keep Japanese yields fixed. We expect the BoJ to eventually lift the target for the 10-year yield and for the JPY to strengthen moderately vs. the USD while weakening relative to the euro.

## Other developed market currencies

overweight Recent comments by the BoC led to a change in market expectations. From the initial expectation of only 50bps of rate hikes, we and most market watchers now expect a normal hiking cycle, which should support the CAD. The AUD, on the other hand, has for a long time this year profited from USD weakness and a stronger Chinese economy. As we expect China's growth to slow towards the year-end and the dollar to stabilize, the CAD should outperform the AUD further over the coming months.

**UBS CIO FX forecasts**

| | 3M | 6M | 12M | PPP* |
|---|---|---|---|---|
| EURUSD | 1.18 | 1.18 | 1.20 | 1.27 |
| USDJPY | 113 | 113 | 110 | 77 |
| USDCAD | 1.18 | 1.20 | 1.20 | 1.20 |
| AUDUSD | 0.78 | 0.76 | 0.76 | 0.70 |
| GBPUSD | 1.36 | 1.36 | 1.36 | 1.58 |
| NZDUSD | 0.71 | 0.71 | 0.71 | 0.57 |
| USDCHF | 0.97 | 0.97 | 0.97 | 0.97 |
| EURCHF | 1.14 | 1.14 | 1.16 | 1.22 |
| GBPCHF | 1.31 | 1.31 | 1.31 | 1.52 |
| EURJPY | 133 | 133 | 132 | 97 |
| EURGBP | 0.87 | 0.87 | 0.88 | 0.80 |
| EURSEK | 9.30 | 9.00 | 8.80 | 9.26 |
| EURNOK | 9.50 | 9.60 | 9.80 | 9.85 |

Source: Thomson Reuters, UBS, as of 18 October 2017
Note: Past performance is not an indication of future returns.
*PPP = Purchasing Power Parity

# Key forecasts

As of 18 October 2017

⊕ Overweight
⊖ Neutral
⊖ Underweight

| Asset class | TAA[1] | Change | Benchmark | Value | m/m perf. in %[2] | 6-month forecast House View | Positive scenario | Negative scenario |
|---|---|---|---|---|---|---|---|---|
| **EQUITIES** | ⊕ | | | | | | | |
| US | ⊖ | – | S&P 500 | 2561 | 2.4% | 2600 | 2925 | 2100 |
| Eurozone | ⊕ | – | Euro Stoxx | 392 | 2.9% | 405 | 450 | 325 |
| UK | ⊖ | – | FTSE 100 | 7543 | 4.5% | 7700 | 8450 | 6500 |
| Japan | ⊖ | – | Topix | 1725 | 5.2% | 1775 | 1950 | 1450 |
| Switzerland | ⊖ | – | SMI | 9310 | 3.1% | 9500 | 10000 | 8100 |
| Emerging Markets | ⊖ | – | MSCI EM | 1127 | 2.2% | 1165 | 1300 | 970 |
| **BONDS** | ⊖ | | | | | | | |
| US Government bonds | ⊖ | – | 10yr Treasury yield | 2.3% | -0.6% | 2.50% | 1.8-2.0% | 2.8-3.2% |
| US Corporate bonds | ⊖ | – | BAML IG spread | 102 bps | 0.2% | 100-120 bps | 90 bps | 275 bps |
| US High yield bonds | ⊖ | – | BAML US HY spread | 346 bps | 0.9% | 380-420 bps | 300 bps | 1100 bps |
| EM Sovereign | ⊖ | – | EMBI Diversified spread | 281 bps | 0.2% | 300 bps | 270 bps | 500 bps |
| EM Corporate | ⊖ | – | CEMBI Diversified spread | 259 bps | -1.4% | 280 bps | 260 bps | 530 bps |
| **OTHER ASSET CLASSES** | | | | | | | | |
| Gold | ⊖ | – | Spot price | 1281 /oz. | -3.0% | 1250 | 1400 | 1100 |
| Brent crude oil | ⊖ | – | Spot price | 58.15 /bbl. | 4.5% | 60 /bbl. | 65-70 /bbl. | 35-40 /bbl. |
| Listed real estate | ⊖ | – | RUGL Index | 4883 | 0.1% | 4650 | 4900 | 4200 |
| **CURRENCIES** | | | Currency pair | | | | | |
| USD | ⊖ | – | | NA | NA | NA | NA | NA |
| EUR | ⊖ | – | EURUSD | 1.18 | -1.3% | 1.18 | NA | NA |
| GBP | ⊖ | – | GBPUSD | 1.32 | -2.9% | 1.36 | NA | NA |
| JPY | ⊖ | – | USDJPY | 113 | 1.9% | 113 | NA | NA |
| CHF | ⊖ | – | USDCHF | 0.98 | 2.2% | 0.97 | NA | NA |

Source: Bloomberg, UBS
[1] TAA = Tactical asset allocation, [2] Month over month
Note: Current values as of 18 October 2017.
**Past performance is no indication of future performance. Forecasts are not a reliable indicator of future performance.**

# Detailed asset allocation

## taxable with non-traditional assets

| Investor risk profile | Conservative | | | | Moderately conservative | | | | Moderate | | | | Moderately aggressive | | | | Aggressive | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| All figures in % (Change this month) | Strategic asset allocation | Tactical deviation | Change[1] | Current allocation[2] | Strategic asset allocation | Tactical deviation | Change[1] | Current allocation[2] | Strategic asset allocation | Tactical deviation | Change[1] | Current allocation[2] | Strategic asset allocation | Tactical deviation | Change[1] | Current allocation[2] | Strategic asset allocation | Tactical deviation | Change[1] | Current allocation[2] |
| **Cash** | **5.0** | **+0.0** | | **5.0** | **5.0** | **+0.0** | | **5.0** | **5.0** | **+0.0** | | **5.0** | **5.0** | **+0.0** | | **5.0** | **5.0** | **+0.0** | | **5.0** |
| **Fixed Income** | **69.0** | **–1.0** | | **68.0** | **50.0** | **–1.5** | | **48.5** | **33.0** | **–2.0** | | **31.0** | **17.0** | **–2.0** | | **15.0** | **5.0** | **–2.0** | | **3.0** |
| **US Fixed Income** | **67.0** | **–1.0** | | **66.0** | **48.0** | **–1.5** | | **46.5** | **31.0** | **–2.0** | | **29.0** | **15.0** | **–2.0** | | **13.0** | **5.0** | **–2.0** | | **3.0** |
| US Gov't | 17.0 | –1.0 | | 16.0 | 2.0 | –1.5 | | 0.5 | 2.0 | –2.0 | | 0.0 | 2.0 | –2.0 | | 0.0 | 2.0 | –2.0 | | 0.0 |
| US Municipal | 46.0 | +0.0 | | 46.0 | 42.0 | +0.0 | | 42.0 | 27.0 | +0.0 | | 27.0 | 11.0 | +0.0 | | 11.0 | 3.0 | +0.0 | | 3.0 |
| US IG Corp | 4.0 | +0.0 | | 4.0 | 2.0 | +0.0 | | 2.0 | 0.0 | +0.0 | | 0.0 | 0.0 | +0.0 | | 0.0 | 0.0 | +0.0 | | 0.0 |
| US HY Corp | 0.0 | +0.0 | | 0.0 | 2.0 | +0.0 | | 2.0 | 2.0 | +0.0 | | 2.0 | 2.0 | +0.0 | | 2.0 | 0.0 | +0.0 | | 0.0 |
| **Int'l Fixed Income** | **2.0** | **+0.0** | | **2.0** | **2.0** | **+0.0** | | **2.0** | **2.0** | **+0.0** | | **2.0** | **2.0** | **+0.0** | | **2.0** | **0.0** | **+0.0** | | **0.0** |
| Int'l Developed Markets | 0.0 | +0.0 | | 0.0 | 0.0 | +0.0 | | 0.0 | 0.0 | +0.0 | | 0.0 | 0.0 | +0.0 | | 0.0 | 0.0 | +0.0 | | 0.0 |
| Emerging Markets | 2.0 | +0.0 | | 2.0 | 2.0 | +0.0 | | 2.0 | 2.0 | +0.0 | | 2.0 | 2.0 | +0.0 | | 2.0 | 0.0 | +0.0 | | 0.0 |
| **Equity** | **13.0** | **+1.0** | | **14.0** | **27.0** | **+1.5** | | **28.5** | **44.0** | **+2.0** | | **46.0** | **64.0** | **+2.0** | | **66.0** | **85.0** | **+2.0** | | **87.0** |
| **Global Equity[3]** | **0.0** | **+1.0** | | **1.0** | **0.0** | **+1.5** | | **1.5** | **0.0** | **+2.0** | | **2.0** | **0.0** | **+2.0** | | **2.0** | **0.0** | **+2.0** | | **2.0** |
| **US Equity** | **8.0** | **+0.0** | | **8.0** | **16.0** | **+0.0** | | **16.0** | **25.0** | **+0.0** | | **25.0** | **37.0** | **+0.0** | | **37.0** | **46.0** | **+0.0** | | **46.0** |
| US Large-cap Growth | 2.5 | –0.5 | | 2.0 | 5.5 | –1.0 | | 4.5 | 8.5 | –1.0 | | 7.5 | 13.0 | –1.0 | | 12.0 | 16.0 | –1.0 | | 15.0 |
| US Large-cap Value | 2.5 | +0.5 | | 3.0 | 5.5 | +1.0 | | 6.5 | 8.5 | +1.0 | | 9.5 | 13.0 | +1.0 | | 14.0 | 16.0 | +1.0 | | 17.0 |
| US Mid-cap | 2.0 | +0.0 | | 2.0 | 3.0 | +0.0 | | 3.0 | 5.0 | +0.0 | | 5.0 | 7.0 | +0.0 | | 7.0 | 9.0 | +0.0 | | 9.0 |
| US Small-cap | 1.0 | +0.0 | | 1.0 | 2.0 | +0.0 | | 2.0 | 3.0 | +0.0 | | 3.0 | 4.0 | +0.0 | | 4.0 | 5.0 | +0.0 | | 5.0 |
| **International Equity** | **5.0** | **+0.0** | | **5.0** | **11.0** | **+0.0** | | **11.0** | **19.0** | **+0.0** | | **19.0** | **27.0** | **+0.0** | | **27.0** | **39.0** | **+0.0** | | **39.0** |
| Int'l Developed Markets | 5.0 | +0.0 | | 5.0 | 8.0 | +0.0 | | 8.0 | 13.0 | +0.0 | | 13.0 | 19.0 | +0.0 | | 19.0 | 28.0 | +0.0 | | 28.0 |
| Emerging Markets | 0.0 | +0.0 | | 0.0 | 3.0 | +0.0 | | 3.0 | 6.0 | +0.0 | | 6.0 | 8.0 | +0.0 | | 8.0 | 11.0 | +0.0 | | 11.0 |
| **Commodities** | **0.0** | **+0.0** | | **0.0** | **0.0** | **+0.0** | | **0.0** | **0.0** | **+0.0** | | **0.0** | **0.0** | **+0.0** | | **0.0** | **0.0** | **+0.0** | | **0.0** |
| **Non-traditional** | **13.0** | **+0.0** | | **13.0** | **18.0** | **+0.0** | | **18.0** | **18.0** | **+0.0** | | **18.0** | **14.0** | **+0.0** | | **14.0** | **5.0** | **+0.0** | | **5.0** |
| Hedge Funds | 13.0 | +0.0 | | 13.0 | 18.0 | +0.0 | | 18.0 | 18.0 | +0.0 | | 18.0 | 14.0 | +0.0 | | 14.0 | 5.0 | +0.0 | | 5.0 |
| Private Equity | 0.0 | +0.0 | | 0.0 | 0.0 | +0.0 | | 0.0 | 0.0 | +0.0 | | 0.0 | 0.0 | +0.0 | | 0.0 | 0.0 | +0.0 | | 0.0 |
| Private Real Estate | 0.0 | +0.0 | | 0.0 | 0.0 | +0.0 | | 0.0 | 0.0 | +0.0 | | 0.0 | 0.0 | +0.0 | | 0.0 | 0.0 | +0.0 | | 0.0 |

Tactical deviation legend: Overweight Underweight Neutral. Change legend: ▲ Upgrade ▼ Downgrade

[1] Change is the difference between the tactical deviation column in the previous month and the current month.

[2] The current allocation column is the sum of the strategic asset allocation and the tactical deviation columns.

[3] The MSCI All Country World Index is used as the benchmark for global equity.

Source: WMA AAC, UBS, As of 19 October 2017. See appendix for information regarding sources of strategic asset allocations and their suitability, investor risk profiles, and the interpretation of the suggested tactical deviations from the strategic asset allocations.

# Detailed asset allocation

## taxable without non-traditional assets

| Investor risk profile | Conservative | | | | Moderately conservative | | | | Moderate | | | | Moderately aggressive | | | | Aggressive | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| All figures in % | Strategic asset allocation | Tactical deviation | Change[1] | Current allocation[2] | Strategic asset allocation | Tactical deviation | Change[1] | Current allocation[2] | Strategic asset allocation | Tactical deviation | Change[1] | Current allocation[2] | Strategic asset allocation | Tactical deviation | Change[1] | Current allocation[2] | Strategic asset allocation | Tactical deviation | Change[1] | Current allocation[2] |
| Change this month | | | | | | | | | | | | | | | | | | | | |
| **Cash** | **5.0** | **+0.0** | | **5.0** | **5.0** | **+0.0** | | **5.0** | **5.0** | **+0.0** | | **5.0** | **5.0** | **+0.0** | | **5.0** | **5.0** | **+0.0** | | **5.0** |
| **Fixed Income** | **79.0** | **–1.0** | | **78.0** | **63.0** | **–1.5** | | **61.5** | **46.0** | **–2.0** | | **44.0** | **27.0** | **–2.0** | | **25.0** | **10.0** | **–2.0** | | **8.0** |
| **US Fixed Income** | **77.0** | **–1.0** | | **76.0** | **61.0** | **–1.5** | | **59.5** | **44.0** | **–2.0** | | **42.0** | **25.0** | **–2.0** | | **23.0** | **10.0** | **–2.0** | | **8.0** |
| US Gov't | 17.0 | –1.0 | | 16.0 | 2.0 | –1.5 | | 0.5 | 2.0 | –2.0 | | 0.0 | 2.0 | –2.0 | | 0.0 | 5.0 | –2.0 | | 3.0 |
| US Municipal | 56.0 | +0.0 | | 56.0 | 55.0 | +0.0 | | 55.0 | 40.0 | +0.0 | | 40.0 | 21.0 | +0.0 | | 21.0 | 5.0 | +0.0 | | 5.0 |
| US IG Corp | 4.0 | +0.0 | | 4.0 | 2.0 | +0.0 | | 2.0 | 0.0 | +0.0 | | 0.0 | 0.0 | +0.0 | | 0.0 | 0.0 | +0.0 | | 0.0 |
| US HY Corp | 0.0 | +0.0 | | 0.0 | 2.0 | +0.0 | | 2.0 | 2.0 | +0.0 | | 2.0 | 2.0 | +0.0 | | 2.0 | 0.0 | +0.0 | | 0.0 |
| **Int'l Fixed Income** | **2.0** | **+0.0** | | **2.0** | **2.0** | **+0.0** | | **2.0** | **2.0** | **+0.0** | | **2.0** | **2.0** | **+0.0** | | **2.0** | **0.0** | **+0.0** | | **0.0** |
| Int'l Developed Markets | 0.0 | +0.0 | | 0.0 | 0.0 | +0.0 | | 0.0 | 0.0 | +0.0 | | 0.0 | 0.0 | +0.0 | | 0.0 | 0.0 | +0.0 | | 0.0 |
| Emerging Markets | 2.0 | +0.0 | | 2.0 | 2.0 | +0.0 | | 2.0 | 2.0 | +0.0 | | 2.0 | 2.0 | +0.0 | | 2.0 | 0.0 | +0.0 | | 0.0 |
| **Equity** | **16.0** | **+1.0** | | **17.0** | **32.0** | **+1.5** | | **33.5** | **49.0** | **+2.0** | | **51.0** | **68.0** | **+2.0** | | **70.0** | **85.0** | **+2.0** | | **87.0** |
| **Global Equity[3]** | **0.0** | **+1.0** | | **1.0** | **0.0** | **+1.5** | | **1.5** | **0.0** | **+2.0** | | **2.0** | **0.0** | **+2.0** | | **2.0** | **0.0** | **+2.0** | | **2.0** |
| **US Equity** | **10.0** | **+0.0** | | **10.0** | **20.0** | **+0.0** | | **20.0** | **28.0** | **+0.0** | | **28.0** | **40.0** | **+0.0** | | **40.0** | **46.0** | **+0.0** | | **46.0** |
| US Large-cap Growth | 3.5 | –0.5 | | 3.0 | 7.0 | –1.0 | | 6.0 | 10.0 | –1.0 | | 9.0 | 14.0 | –1.0 | | 13.0 | 16.0 | –1.0 | | 15.0 |
| US Large-cap Value | 3.5 | +0.5 | | 4.0 | 7.0 | +1.0 | | 8.0 | 10.0 | +1.0 | | 11.0 | 14.0 | +1.0 | | 15.0 | 16.0 | +1.0 | | 17.0 |
| US Mid-cap | 2.0 | +0.0 | | 2.0 | 4.0 | +0.0 | | 4.0 | 5.0 | +0.0 | | 5.0 | 8.0 | +0.0 | | 8.0 | 9.0 | +0.0 | | 9.0 |
| US Small-cap | 1.0 | +0.0 | | 1.0 | 2.0 | +0.0 | | 2.0 | 3.0 | +0.0 | | 3.0 | 4.0 | +0.0 | | 4.0 | 5.0 | +0.0 | | 5.0 |
| **International Equity** | **6.0** | **+0.0** | | **6.0** | **12.0** | **+0.0** | | **12.0** | **21.0** | **+0.0** | | **21.0** | **28.0** | **+0.0** | | **28.0** | **39.0** | **+0.0** | | **39.0** |
| Int'l Developed Markets | 6.0 | +0.0 | | 6.0 | 9.0 | +0.0 | | 9.0 | 15.0 | +0.0 | | 15.0 | 20.0 | +0.0 | | 20.0 | 28.0 | +0.0 | | 28.0 |
| Emerging Markets | 0.0 | +0.0 | | 0.0 | 3.0 | +0.0 | | 3.0 | 6.0 | +0.0 | | 6.0 | 8.0 | +0.0 | | 8.0 | 11.0 | +0.0 | | 11.0 |
| **Commodities** | **0.0** | **+0.0** | | **0.0** | **0.0** | **+0.0** | | **0.0** | **0.0** | **+0.0** | | **0.0** | **0.0** | **+0.0** | | **0.0** | **0.0** | **+0.0** | | **0.0** |

Tactical deviation legend: Overweight Underweight Neutral. Change legend: ▲ Upgrade ▼ Downgrade

[1] Change is the difference between the tactical deviation column in the previous month and the current month.

[2] The current allocation column is the sum of the strategic asset allocation and the tactical deviation columns.

[3] The MSCI All Country World Index is used as the benchmark for global equity.

Source: WMA AAC, UBS, As of 19 October 2017. See appendix for information regarding sources of strategic asset allocations and their suitability, investor risk profiles, and the interpretation of the suggested tactical deviations from the strategic asset allocations.

# Detailed asset allocation

## non-taxable with non-traditional assets

| Investor risk profile | Conservative | | | | Moderately conservative | | | | Moderate | | | | Moderately aggressive | | | | Aggressive | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| All figures in % / Change this month | Strategic asset allocation | Tactical deviation | Change[1] | Current allocation[2] | Strategic asset allocation | Tactical deviation | Change[1] | Current allocation[2] | Strategic asset allocation | Tactical deviation | Change[1] | Current allocation[2] | Strategic asset allocation | Tactical deviation | Change[1] | Current allocation[2] | Strategic asset allocation | Tactical deviation | Change[1] | Current allocation[2] |
| **Cash** | **5.0** | **+0.0** | | **5.0** | **5.0** | **+0.0** | | **5.0** | **5.0** | **+0.0** | | **5.0** | **5.0** | **+0.0** | | **5.0** | **5.0** | **+0.0** | | **5.0** |
| **Fixed Income** | **69.0** | **–1.0** | | **68.0** | **50.0** | **–1.5** | | **48.5** | **33.0** | **–2.0** | | **31.0** | **17.0** | **–2.0** | | **15.0** | **5.0** | **–2.0** | | **3.0** |
| **US Fixed Income** | **64.0** | **–1.0** | | **63.0** | **45.0** | **–1.5** | | **43.5** | **29.0** | **–2.0** | | **27.0** | **14.0** | **–2.0** | | **12.0** | **5.0** | **–2.0** | | **3.0** |
| US Gov't | 35.0 | –1.0 | | 34.0 | 25.0 | –1.5 | | 23.5 | 16.0 | –2.0 | | 14.0 | 7.0 | –2.0 | | 5.0 | 5.0 | –2.0 | | 3.0 |
| US Municipal | 0.0 | +0.0 | | 0.0 | 0.0 | +0.0 | | 0.0 | 0.0 | +0.0 | | 0.0 | 0.0 | +0.0 | | 0.0 | 0.0 | +0.0 | | 0.0 |
| US IG Corp | 24.0 | +0.0 | | 24.0 | 15.0 | +0.0 | | 15.0 | 8.0 | +0.0 | | 8.0 | 2.0 | +0.0 | | 2.0 | 0.0 | +0.0 | | 0.0 |
| US HY Corp | 5.0 | +0.0 | | 5.0 | 5.0 | +0.0 | | 5.0 | 5.0 | +0.0 | | 5.0 | 5.0 | +0.0 | | 5.0 | 0.0 | +0.0 | | 0.0 |
| **Int'l Fixed Income** | **5.0** | **+0.0** | | **5.0** | **5.0** | **+0.0** | | **5.0** | **4.0** | **+0.0** | | **4.0** | **3.0** | **+0.0** | | **3.0** | **0.0** | **+0.0** | | **0.0** |
| Int'l Developed Markets | 0.0 | +0.0 | | 0.0 | 0.0 | +0.0 | | 0.0 | 0.0 | +0.0 | | 0.0 | 0.0 | +0.0 | | 0.0 | 0.0 | +0.0 | | 0.0 |
| Emerging Markets | 5.0 | +0.0 | | 5.0 | 5.0 | +0.0 | | 5.0 | 4.0 | +0.0 | | 4.0 | 3.0 | +0.0 | | 3.0 | 0.0 | +0.0 | | 0.0 |
| **Equity** | **10.0** | **+1.0** | | **11.0** | **25.0** | **+1.5** | | **26.5** | **42.0** | **+2.0** | | **44.0** | **62.0** | **+2.0** | | **64.0** | **85.0** | **+2.0** | | **87.0** |
| **Global Equity[3]** | **0.0** | **+1.0** | | **1.0** | **0.0** | **+1.5** | | **1.5** | **0.0** | **+2.0** | | **2.0** | **0.0** | **+2.0** | | **2.0** | **0.0** | **+2.0** | | **2.0** |
| **US Equity** | **6.0** | **+0.0** | | **6.0** | **14.0** | **+0.0** | | **14.0** | **22.0** | **+0.0** | | **22.0** | **33.0** | **+0.0** | | **33.0** | **45.0** | **+0.0** | | **45.0** |
| US Large-cap Growth | 2.0 | –0.5 | | 1.5 | 5.0 | –1.0 | | 4.0 | 8.0 | –1.0 | | 7.0 | 12.0 | –1.0 | | 11.0 | 16.0 | –1.0 | | 15.0 |
| US Large-cap Value | 2.0 | +0.5 | | 2.5 | 5.0 | +1.0 | | 6.0 | 8.0 | +1.0 | | 9.0 | 12.0 | +1.0 | | 13.0 | 16.0 | +1.0 | | 17.0 |
| US Mid-cap | 1.0 | +0.0 | | 1.0 | 3.0 | +0.0 | | 3.0 | 4.0 | +0.0 | | 4.0 | 6.0 | +0.0 | | 6.0 | 8.0 | +0.0 | | 8.0 |
| US Small-cap | 1.0 | +0.0 | | 1.0 | 1.0 | +0.0 | | 1.0 | 2.0 | +0.0 | | 2.0 | 3.0 | +0.0 | | 3.0 | 5.0 | +0.0 | | 5.0 |
| **International Equity** | **4.0** | **+0.0** | | **4.0** | **11.0** | **+0.0** | | **11.0** | **20.0** | **+0.0** | | **20.0** | **29.0** | **+0.0** | | **29.0** | **40.0** | **+0.0** | | **40.0** |
| Int'l Developed Markets | 4.0 | +0.0 | | 4.0 | 8.0 | +0.0 | | 8.0 | 14.0 | +0.0 | | 14.0 | 21.0 | +0.0 | | 21.0 | 29.0 | +0.0 | | 29.0 |
| Emerging Markets | 0.0 | +0.0 | | 0.0 | 3.0 | +0.0 | | 3.0 | 6.0 | +0.0 | | 6.0 | 8.0 | +0.0 | | 8.0 | 11.0 | +0.0 | | 11.0 |
| **Commodities** | **0.0** | **+0.0** | | **0.0** | **0.0** | **+0.0** | | **0.0** | **0.0** | **+0.0** | | **0.0** | **0.0** | **+0.0** | | **0.0** | **0.0** | **+0.0** | | **0.0** |
| **Non-traditional** | **16.0** | **+0.0** | | **16.0** | **20.0** | **+0.0** | | **20.0** | **20.0** | **+0.0** | | **20.0** | **16.0** | **+0.0** | | **16.0** | **5.0** | **+0.0** | | **5.0** |
| Hedge Funds | 16.0 | +0.0 | | 16.0 | 20.0 | +0.0 | | 20.0 | 20.0 | +0.0 | | 20.0 | 16.0 | +0.0 | | 16.0 | 5.0 | +0.0 | | 5.0 |
| Private Equity | 0.0 | +0.0 | | 0.0 | 0.0 | +0.0 | | 0.0 | 0.0 | +0.0 | | 0.0 | 0.0 | +0.0 | | 0.0 | 0.0 | +0.0 | | 0.0 |
| Private Real Estate | 0.0 | +0.0 | | 0.0 | 0.0 | +0.0 | | 0.0 | 0.0 | +0.0 | | 0.0 | 0.0 | +0.0 | | 0.0 | 0.0 | +0.0 | | 0.0 |

Tactical deviation legend: Overweight Underweight Neutral. Change legend: ▲ Upgrade ▼ Downgrade

[1] Change is the difference between the tactical deviation column in the previous month and the current month.

[2] The current allocation column is the sum of the strategic asset allocation and the tactical deviation columns.

[3] The MSCI All Country World Index is used as the benchmark for global equity.

Source: WMA AAC, UBS, As of 19 October 2017. See appendix for information regarding sources of strategic asset allocations and their suitability, investor risk profiles, and the interpretation of the suggested tactical deviations from the strategic asset allocations.

# Detailed asset allocation

## non-taxable without non-traditional assets

| Investor risk profile | Conservative | | | | Moderately conservative | | | | Moderate | | | | Moderately aggressive | | | | Aggressive | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Change this month / All figures in % | Strategic asset allocation | Tactical deviation | Change[1] | Current allocation[2] | Strategic asset allocation | Tactical deviation | Change[1] | Current allocation[2] | Strategic asset allocation | Tactical deviation | Change[1] | Current allocation[2] | Strategic asset allocation | Tactical deviation | Change[1] | Current allocation[2] | Strategic asset allocation | Tactical deviation | Change[1] | Current allocation[2] |
| **Cash** | **5.0** | **+0.0** | | **5.0** | **5.0** | **+0.0** | | **5.0** | **5.0** | **+0.0** | | **5.0** | **5.0** | **+0.0** | | **5.0** | **5.0** | **+0.0** | | **5.0** |
| **Fixed Income** | **79.0** | **–1.0** | | **78.0** | **63.0** | **–1.5** | | **61.5** | **46.0** | **–2.0** | | **44.0** | **27.0** | **–2.0** | | **25.0** | **10.0** | **–2.0** | | **8.0** |
| **US Fixed Income** | **74.0** | **–1.0** | | **73.0** | **58.0** | **–1.5** | | **56.5** | **42.0** | **–2.0** | | **40.0** | **24.0** | **–2.0** | | **22.0** | **10.0** | **–2.0** | | **8.0** |
| US Gov't | 35.0 | –1.0 | | 34.0 | 25.0 | –1.5 | | 23.5 | 16.0 | –2.0 | | 14.0 | 7.0 | –2.0 | | 5.0 | 5.0 | –2.0 | | 3.0 |
| US Municipal | 0.0 | +0.0 | | 0.0 | 0.0 | +0.0 | | 0.0 | 0.0 | +0.0 | | 0.0 | 0.0 | +0.0 | | 0.0 | 0.0 | +0.0 | | 0.0 |
| US IG Corp | 34.0 | +0.0 | | 34.0 | 28.0 | +0.0 | | 28.0 | 21.0 | +0.0 | | 21.0 | 12.0 | +0.0 | | 12.0 | 5.0 | +0.0 | | 5.0 |
| US HY Corp | 5.0 | +0.0 | | 5.0 | 5.0 | +0.0 | | 5.0 | 5.0 | +0.0 | | 5.0 | 5.0 | +0.0 | | 5.0 | 0.0 | +0.0 | | 0.0 |
| **Int'l Fixed Income** | **5.0** | **+0.0** | | **5.0** | **5.0** | **+0.0** | | **5.0** | **4.0** | **+0.0** | | **4.0** | **3.0** | **+0.0** | | **3.0** | **0.0** | **+0.0** | | **0.0** |
| Int'l Developed Markets | 0.0 | +0.0 | | 0.0 | 0.0 | +0.0 | | 0.0 | 0.0 | +0.0 | | 0.0 | 0.0 | +0.0 | | 0.0 | 0.0 | +0.0 | | 0.0 |
| Emerging Markets | 5.0 | +0.0 | | 5.0 | 5.0 | +0.0 | | 5.0 | 4.0 | +0.0 | | 4.0 | 3.0 | +0.0 | | 3.0 | 0.0 | +0.0 | | 0.0 |
| **Equity** | **16.0** | **+1.0** | | **17.0** | **32.0** | **+1.5** | | **33.5** | **49.0** | **+2.0** | | **51.0** | **68.0** | **+2.0** | | **70.0** | **85.0** | **+2.0** | | **87.0** |
| **Global Equity[3]** | **0.0** | **+1.0** | | **1.0** | **0.0** | **+1.5** | | **1.5** | **0.0** | **+2.0** | | **2.0** | **0.0** | **+2.0** | | **2.0** | **0.0** | **+2.0** | | **2.0** |
| **US Equity** | **10.0** | **+0.0** | | **10.0** | **18.0** | **+0.0** | | **18.0** | **26.0** | **+0.0** | | **26.0** | **35.0** | **+0.0** | | **35.0** | **45.0** | **+0.0** | | **45.0** |
| US Large-cap Growth | 3.5 | –0.5 | | 3.0 | 6.5 | –1.0 | | 5.5 | 9.0 | –1.0 | | 8.0 | 12.0 | –1.0 | | 11.0 | 16.0 | –1.0 | | 15.0 |
| US Large-cap Value | 3.5 | +0.5 | | 4.0 | 6.5 | +1.0 | | 7.5 | 9.0 | +1.0 | | 10.0 | 12.0 | +1.0 | | 13.0 | 16.0 | +1.0 | | 17.0 |
| US Mid-cap | 2.0 | +0.0 | | 2.0 | 3.0 | +0.0 | | 3.0 | 5.0 | +0.0 | | 5.0 | 7.0 | +0.0 | | 7.0 | 8.0 | +0.0 | | 8.0 |
| US Small-cap | 1.0 | +0.0 | | 1.0 | 2.0 | +0.0 | | 2.0 | 3.0 | +0.0 | | 3.0 | 4.0 | +0.0 | | 4.0 | 5.0 | +0.0 | | 5.0 |
| **International Equity** | **6.0** | **+0.0** | | **6.0** | **14.0** | **+0.0** | | **14.0** | **23.0** | **+0.0** | | **23.0** | **33.0** | **+0.0** | | **33.0** | **40.0** | **+0.0** | | **40.0** |
| Int'l Developed Markets | 6.0 | +0.0 | | 6.0 | 10.0 | +0.0 | | 10.0 | 17.0 | +0.0 | | 17.0 | 24.0 | +0.0 | | 24.0 | 29.0 | +0.0 | | 29.0 |
| Emerging Markets | 0.0 | +0.0 | | 0.0 | 4.0 | +0.0 | | 4.0 | 6.0 | +0.0 | | 6.0 | 9.0 | +0.0 | | 9.0 | 11.0 | +0.0 | | 11.0 |
| **Commodities** | **0.0** | **+0.0** | | **0.0** | **0.0** | **+0.0** | | **0.0** | **0.0** | **+0.0** | | **0.0** | **0.0** | **+0.0** | | **0.0** | **0.0** | **+0.0** | | **0.0** |

Tactical deviation legend: Overweight Underweight Neutral. Change legend: ▲ Upgrade ▼ Downgrade

[1] Change is the difference between the tactical deviation column in the previous month and the current month.

[2] The current allocation column is the sum of the strategic asset allocation and the tactical deviation columns.

[3] The MSCI All Country World Index is used as the benchmark for global equity.

Source: WMA AAC, UBS, As of 19 October 2017. See appendix for information regarding sources of strategic asset allocations and their suitability, investor risk profiles, and the interpretation of the suggested tactical deviations from the strategic asset allocations.

# Detailed asset allocation

## all equity and all fixed income models

| All figures in % | All equity | | | | All fixed income, taxable | | | | All fixed income, non-taxable | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Strategic asset allocation | Tactical deviation | Change[1] | Current allocation[2] | Strategic asset allocation | Tactical deviation | Change[1] | Current allocation[2] | Strategic asset allocation | Tactical deviation | Change[1] | Current allocation[2] |
| **Cash** | **5.0** | **–2.0** | | **3.0** | **5.0** | **+0.0** | | **5.0** | **5.0** | **+0.0** | | **5.0** |
| **Fixed Income** | **0.0** | **+0.0** | | **0.0** | **95.0** | **+0.0** | | **95.0** | **95.0** | **+0.0** | | **95.0** |
| **US Fixed Income** | **0.0** | **+0.0** | | **0.0** | **92.5** | **+0.0** | | **92.5** | **89.0** | **+0.0** | | **89.0** |
| US Gov't | 0.0 | +0.0 | | 0.0 | 19.0 | +0.0 | | 19.0 | 33.0 | +0.0 | | 33.0 |
| US MBS | 0.0 | +0.0 | | 0.0 | 0.0 | +0.0 | | 0.0 | 9.0 | +0.0 | | 9.0 |
| US Municipal | 0.0 | +0.0 | | 0.0 | 71.0 | +0.0 | | 71.0 | 0.0 | +0.0 | | 0.0 |
| US IG Corp | 0.0 | +0.0 | | 0.0 | 0.0 | +0.0 | | 0.0 | 41.0 | +0.0 | | 41.0 |
| US HY Corp | 0.0 | +0.0 | | 0.0 | 2.5 | +0.0 | | 2.5 | 6.0 | +0.0 | | 6.0 |
| **Int'l Fixed Income** | **0.0** | **+0.0** | | **0.0** | **2.5** | **+0.0** | | **2.5** | **6.0** | **+0.0** | | **6.0** |
| Int'l Developed Markets | 0.0 | +0.0 | | 0.0 | 0.0 | +0.0 | | 0.0 | 0.0 | +0.0 | | 0.0 |
| Emerging Markets | 0.0 | +0.0 | | 0.0 | 2.5 | +0.0 | | 2.5 | 6.0 | +0.0 | | 6.0 |
| **Equity** | **95.0** | **+2.0** | | **97.0** | **0.0** | **+0.0** | | **0.0** | **0.0** | **+0.0** | | **0.0** |
| **Global Equity[3]** | **0.0** | **+2.0** | | **2.0** | **0.0** | **+0.0** | | **0.0** | **0.0** | **+0.0** | | **0.0** |
| **US Equity** | **53.0** | **+0.0** | | **53.0** | **0.0** | **+0.0** | | **0.0** | **0.0** | **+0.0** | | **0.0** |
| US Large-cap Growth | 7.0 | –1.0 | | 6.0 | 0.0 | +0.0 | | 0.0 | 0.0 | +0.0 | | 0.0 |
| US Large-cap Value | 7.0 | +1.0 | | 8.0 | 0.0 | +0.0 | | 0.0 | 0.0 | +0.0 | | 0.0 |
| US Large-cap total market | 23.0 | –3.0 | | 20.0 | 0.0 | +0.0 | | 0.0 | 0.0 | +0.0 | | 0.0 |
| Energy Sector | 0.0 | +3.0 | | 3.0 | 0.0 | +0.0 | | 0.0 | 0.0 | +0.0 | | 0.0 |
| US Mid-cap | 10.0 | +0.0 | | 10.0 | 0.0 | +0.0 | | 0.0 | 0.0 | +0.0 | | 0.0 |
| US Small-cap | 6.0 | +0.0 | | 6.0 | 0.0 | +0.0 | | 0.0 | 0.0 | +0.0 | | 0.0 |
| **International Equity** | **42.0** | **+0.0** | | **42.0** | **0.0** | **+0.0** | | **0.0** | **0.0** | **+0.0** | | **0.0** |
| Int'l Developed Markets | 30.0 | +0.0 | | 30.0 | 0.0 | +0.0 | | 0.0 | 0.0 | +0.0 | | 0.0 |
| Emerging Markets | 12.0 | –6.0 | | 6.0 | 0.0 | +0.0 | | 0.0 | 0.0 | +0.0 | | 0.0 |
| China | 0.0 | +3.0 | | 3.0 | 0.0 | +0.0 | | 0.0 | 0.0 | +0.0 | | 0.0 |
| Russia | 0.0 | +3.0 | | 3.0 | 0.0 | +0.0 | | 0.0 | 0.0 | +0.0 | | 0.0 |

**Publication note**

The All Equity and All Fixed Income portfolios complement our balanced portfolios and offer more granular implementation of our House View. While we generally do not recommend that investors hold portfolios consisting of only stocks or only bonds, the All Equity and All Fixed Income portfolios can be used by investors who want to complement their existing holdings.

In the All Equity portfolio, tactical tilts will be based on the corresponding tilts to the Equity asset classes in our balanced portfolio (moderate risk profile, taxable without alternative investments). The amount of cash in the All Equity portfolio will vary one-for-one with the overall overweight/underweight on equities in the balanced portfolio, subject to a 3% maximum tilt from the 5% cash allocation. This allows us to use the cash allocation to express a tactical preference between stocks and fixed income. A special feature of the All Equity portfolio is that it includes "carve-outs": 3% allocations to our preferred sectors within US large-caps as well as our preferred countries within both international developed markets and the emerging markets. A maximum of two sectors/countries of each type may be selected for carve-outs.

The All Fixed Income portfolios include both taxable and non-taxable versions. In addition to the fixed income asset classes in the balanced portfolios, the non-taxable version incorporates an additional allocation to Mortgage Backed Securities. Tactical tilts will be based on the corresponding tilts to the Fixed Income asset classes in our balanced portfolios (moderate risk profile without alternative investments, taxable or non-taxable respectively), but only when there is a preference between the fixed income asset classes. For example, an overweight on high yield corporate bonds offset by an underweight on government bonds in the balanced portfolio would be applied to the All Fixed Income portfolios. However, an overweight on US equities versus US government bonds in the balanced portfolio would not be reflected in the All Fixed Income portfolios. Further, the tilts in the All Fixed Income portfolios will typically be scaled up to twice the size of the tilts in the balanced portfolio.

Tactical deviation legend: Overweight Underweight Neutral. Change legend: ▲ Upgrade ▼ Downgrade

[1] Change is the difference between the tactical deviation column in the previous month and the current month.

[2] The current allocation column is the sum of the strategic asset allocation and the tactical deviation columns.

[3] The MSCI All Country World Index is used as the benchmark for global equity.

Source: WMA AAC, UBS, As of 19 October 2017. See appendix for information regarding sources of strategic asset allocations and their suitability, investor risk profiles, and the interpretation of the suggested tactical deviations from the strategic asset allocations.

# Portfolio analytics

The portfolio analytics shown for each risk profile's benchmark allocations are based on estimated forward-looking return and standard deviation assumptions (capital market assumptions), which are based on UBS proprietary research. The development process includes a review of a variety of factors, including the return, risk, correlations and historical performance of various asset classes, inflation and risk premium. These capital market assumptions do not assume any particular investment time horizon. Please note that these assumptions are not guarantees and are subject to change. UBS has changed its risk and return assumptions in the past and may do so in the future. Neither UBS nor your Financial Advisor is required to provide you with an updated analysis based upon changes to these or other underlying assumptions.

In order to create the analysis shown, the rates of return for each asset class are combined in the same proportion as the asset allocations illustrated (e.g., if the asset allocation indicates 40% equities, then 40% of the results shown for the allocation will be based upon the estimated hypothetical return and standard deviation assumptions shown below).

You should understand that the analysis shown and assumptions used are hypothetical estimates provided for your general information. The results are not guarantees and pertain to the asset allocation and/or asset class in general, not the performance of specific securities or investments. Your actual results may vary significantly from the results shown in this report, as can the performance of any individual security or investment.

| Risk Profile ==>> Conservative | | Moderately conservative | Moderate | Moderately aggressive | Aggressive |
|---|---|---|---|---|---|
| **Taxable with non-traditional assets** | | | | | |
| Estimated Return | 3.2% | 4.3% | 5.4% | 6.5% | 7.4% |
| Estimated Risk | 3.9% | 6.1% | 8.6% | 11.3% | 13.9% |
| **Taxable without non-traditional assets** | | | | | |
| Estimated Return | 2.9% | 3.9% | 5.0% | 6.2% | 7.2% |
| Estimated Risk | 4.0% | 6.1% | 8.5% | 11.2% | 13.6% |
| **Non-taxable with non-traditional assets** | | | | | |
| Estimated Return | 3.6% | 4.6% | 5.6% | 6.6% | 7.4% |
| Estimated Risk | 4.2% | 6.1% | 8.6% | 11.3% | 13.8% |
| **Non-taxable without non-traditional assets** | | | | | |
| Estimated Return | 3.5% | 4.4% | 5.4% | 6.5% | 7.3% |
| Estimated Risk | 4.5% | 6.5% | 8.8% | 11.6% | 13.6% |

| Asset Class Capital Market Assumptions | Annual total return | Annual risk |
|---|---|---|
| US Cash | 2.1% | 0.5% |
| US Government Fixed Income | 1.9% | 4.0% |
| US Municipal Fixed Income | 1.8% | 4.1% |
| US Corporate Investment-Grade Fixed Income | 2.8% | 5.0% |
| US Corporate High-Yield Fixed Income | 4.8% | 9.2% |
| International Developed Markets Fixed Income | 1.8% | 7.9% |
| Emerging Markets Fixed Income | 4.2% | 10.5% |
| US Large-cap Equity | 7.1% | 15.7% |
| US Mid-cap Equity | 7.6% | 18.3% |
| US Small-cap Equity | 7.8% | 20.1% |
| International Developed Markets Equity | 9.4% | 16.5% |
| Emerging Markets Equity | 8.8% | 24.1% |
| Commodities | 4.4% | 19.2% |
| Hedge Funds | 5.5% | 6.7% |
| Private Equity | 12.0% | 12.7% |
| Private Real Estate | 9.8% | 10.5% |

# Additional asset allocation models

**US equity sector allocation, in %**

For US equity subsector recommendations please see the "Equity Preference List" for each sector. These reports are published on a monthly basis and can be found on the Online Services website in the Research > Equities section.

| | S&P 500 Benchmark allocation[1] | CIO Americas, WM tactical deviation[2] | | | | Current allocation[3] |
|---|---|---|---|---|---|---|
| | | Numeric | | Symbol | | |
| | | Previous | Current | Previous | Current | |
| Consumer Discretionary | 11.9 | +0.0 | +0.0 | n | n | 11.9 |
| Consumer Staples | 8.2 | -2.0 | -2.0 | – – | – – | 6.2 |
| Energy | 6.0 | +2.0 | +2.0 | ++ | ++ | 8.0 |
| Financials | 14.5 | +1.0 | +1.0 | + | + | 15.5 |
| Healthcare | 14.5 | +0.0 | +0.0 | n | n | 14.5 |
| Industrials | 10.2 | +0.0 | +0.0 | n | n | 10.2 |
| Information Technology | 23.6 | +1.0 | +1.0 | + | + | 24.6 |
| Materials | 3.0 | +0.0 | +0.0 | n | n | 3.0 |
| Real Estate | 3.0 | +0.0 | +0.0 | n | n | 3.0 |
| Telecom | 2.0 | +0.0 | +0.0 | n | n | 2.0 |
| Utilities | 3.1 | -2.0 | -2.0 | – – | – – | 1.1 |

NOTE: The benchmark allocations, as well as the tactical deviations, are intended to be applicable to the US equity portion of a portfolio across investor risk profiles.
Source: UBS, as of 19 October 2017

**International developed markets (non-US) equity module, in %**

| | Benchmark allocation[1] | CIO Americas, WM tactical deviation[2] | | Current allocation[3] |
|---|---|---|---|---|
| | | Previous | Current | |
| EMU / Eurozone | 28.0 | +10.0 | +10.0 | 38.0 |
| UK | 17.0 | -10.0 | -10.0 | 7.0 |
| Japan | 22.0 | +0.0 | +0.0 | 22.0 |
| Australia | 7.0 | +0.0 | +0.0 | 7.0 |
| Canada | 9.0 | +0.0 | +0.0 | 9.0 |
| Switzerland | 8.0 | +0.0 | +0.0 | 8.0 |
| Other | 9.0 | +0.0 | +0.0 | 9.0 |

Source: UBS, as of 19 October 2017

**International developed markets (non-US) fixed income module, in %**

| | Benchmark allocation[1] | CIO Americas, WM tactical deviation[2] | | Current allocation[3] |
|---|---|---|---|---|
| | | Previous | Current | |
| EMU / Eurozone | 42.0 | +0.0 | +0.0 | 42.0 |
| UK | 9.0 | +0.0 | +0.0 | 9.0 |
| Japan | 32.0 | +0.0 | +0.0 | 32.0 |
| Other | 17.0 | +0.0 | +0.0 | 17.0 |

Source: UBS, as of 19 October 2017

Footnotes
[1]For the first table on this page, the benchmark allocation is based on S&P 500 weights. For the second and third tables on this page, the benchmark allocation refers to a moderate risk profile and represents the relative market capitalization weights of each country or region.
[2]See "Deviations from strategic asset allocation or benchmark allocation" in the appendix for an explanation regarding the interpretation of the suggested tactical deviations from benchmark. The "current" column refers to the tactical deviation that applies as of the date of this publication. The "previous" column refers to the tactical deviation that was in place at the date of the previous edition of UBS House View or the last UBS House View Update.
[3]The current allocation column is the sum of the CIO Americas, WM tactical deviation columns and (the S&P 500 benchmark allocation for the first table on this page) (the benchmark allocation for the second and third tables on this page).

# Tactical asset allocation performance measurement

The performance calculations shown in Table A commence on 25 January 2013, the first date upon which the Investment Strategy Guide was published following the release of the new UBS WMA strategic asset allocation (SAA) models. The performance is based on the SAA without non-traditional assets for a moderate risk profile investor, and the SAA with the tactical shift (see detailed asset allocation tables where the SAA with the tactical shift is referred to as "current allocation"). Performance is calculated utilizing the returns of the indices identified in Table B as applied to the respective allocations in the SAA and the SAA with the tactical shift. For example, if US mid cap equity is allocated 10% in the SAA and 12% in the SAA with the tactical shift, the US mid cap equity index respectively contributed to 10% and 12% of the results shown. Prior to 25 January 2013, CIO Wealth Management published tactical asset allocation recommendations in the *Investment Strategy Guide* using a different set of asset classes and sectors. The performance of these tactical recommendations is reflected in Table C of the February 2017 House View *Investment Strategy Guide*.

The performance attributable to the CIO Americas, WM tactical deviations is reflected in the column in Table A labeled "Excess return," which shows the difference between the performance of the SAA and the performance of the SAA with the tactical shift. The "Information ratio" is a risk-adjusted performance measure, which adjusts the excess returns for the tracking error risk of the tactical deviations. Specifically the information ratio is calculated as the ratio of the annualized excess return over a given time period and the annualized standard deviation of daily excess returns over the same period. Additional background information regarding the computation of the information ratio figures provided below are available upon request.

The calculations assume that the portfolios are rebalanced upon publication of the models in the CIO Letter or House View Update. The computations assume portfolio rebalancing upon such intra-month changes as well. Performance shown is based on total returns, but does not include transaction costs, such as commissions, fees, margin interest, and interest charges. Actual total returns adjusted for such transaction costs will be reduced. A complete record of all the recommendations upon which this performance report is based is available from UBS Financial Services Inc. upon written request. Past performance is not an indication of future results.

**Table A: Moderate risk profile performance measurement (25 January 2013 to present)—See NOTE next page**

| | SAA | SAA with tactical shift | Excess return | Information ratio (annualized) | Russell 3000 stock index (total return) | Barclays Capital US Aggregate bond index (total return) |
|---|---|---|---|---|---|---|
| 25 January 2013 to 31 March 2013 | 0.79% | 0.83% | 0.04% | 0.9 | 5.59% | 0.11% |
| 2Q 2013 | -2.18% | -2.14% | 0.04% | 0.3 | 2.69% | -2.33% |
| 3Q 2013 | 3.60% | 3.86% | 0.26% | 2.4 | 6.35% | 0.57% |
| 4Q 2013 | 3.05% | 3.23% | 0.18% | 2.9 | 10.10% | -0.14% |
| 1Q 2014 | 2.56% | 2.53% | -0.03% | -0.2 | 1.97% | 1.84% |
| 2Q 2014 | 3.44% | 3.49% | 0.05% | 0.3 | 4.87% | 2.04% |
| 3Q 2014 | -1.54% | -1.71% | -0.16% | -1.2 | 0.01% | 0.17% |
| 4Q 2014 | 0.47% | 0.73% | 0.26% | 1.3 | 5.24% | 1.79% |
| 1Q 2015 | 1.38% | 1.69% | 0.31% | 2.1 | 1.80% | 1.61% |
| 2Q 2015 | -0.18% | -0.19% | -0.01% | -0.1 | 0.14% | -1.68% |
| 3Q 2015 | -4.67% | -5.08% | -0.41% | -2.4 | -7.25% | 1.23% |
| 4Q 2015 | 1.61% | 1.67% | 0.06% | 0.5 | 6.27% | -0.57% |
| 1Q 2016 | 2.11% | 1.72% | -0.39% | -3.7 | 0.97% | 3.03% |
| 2Q 2016 | 2.81% | 2.88% | 0.08% | 1.1 | 2.63% | 2.21% |
| 3Q 2016 | 2.50% | 2.60% | 0.10% | 1.5 | 4.40% | 0.46% |
| 4Q 2016 | -1.33% | -1.13% | 0.21% | 3.4 | 4.21% | -2.98% |
| 1Q 2017 | 3.93% | 4.07% | 0.14% | 2.5 | 5.74% | 0.82% |
| 2Q 2017 | 3.01% | 3.11% | 0.10% | 1.6 | 3.02% | 1.45% |
| 3Q 2017 | 3.07% | 3.18% | 0.11% | 2.1 | 4.57% | 0.85% |
| 2017 year to date | 11.63% | 12.03% | 0.40% | 2.3 | 15.80% | 3.19% |
| Since inception (25 January 2013) | 28.32% | 29.47% | 1.16% | 0.5 | 87.45% | 10.83% |

Source: UBS, as of 18 October 2017
Note: Performance after 27 February 2017 based on updated SAA weights as shown in Table B

# Tactical asset allocation performance measurement

**Table B: SAA for moderate risk profile investor, and underlying indices (all figures in %)**

| 25 Jan 2013 to present | Previous SAA weights (25 Jan 2013—27 Feb 2017) | New SAA weights (27 Feb 2017 onward) |
|---|---|---|
| US cash (Barclays Capital US Treasury—Bills [1–3 M]) | 0.0 | 5.0 |
| US Large-Cap Growth (Russell 1000 Growth) | 7.0 | 10.0 |
| US Large-Cap Value (Russell 1000 Value) | 7.0 | 10.0 |
| US Mid-Cap (Russell Mid Cap) | 6.0 | 5.0 |
| US Small-Cap (Russell 2000) | 3.0 | 3.0 |
| International Dev. Equities (MSCI EAFE) | 10.0 | 15.0 |
| Emerging Markets Equities (MSCI EMF) | 7.5 | 6.0 |
| US Government Fixed Income (BarCap US Agg Government) | 5.0 | 2.0 |
| US Municipal Fixed Income (BarCap Municipal Bond) | 35.0 | 40.0 |
| US Investment-Grade Fixed Income (BarCap US Agg Credit) | 3.0 | 0.0 |
| US Corporate High-Yield Fixed Income (BarCap US Agg Corp HY) | 4.0 | 2.0 |
| International Dev. Fixed Income (BarCap Global Agg xUS) | 4.0 | 0.0 |
| Emerging Markets Fixed Income (50% BarCap EM Gov and 50% BarCap Global EM (USD)) | 3.5 | 2.0 |
| Commodities (Dow Jones-UBS Commodity Index) | 5.0 | 0.0 |

Note: The performance of our tactical overweight on TIPS will be measured by the Bloomberg Barclays US Inflation Linked Bonds 1 to 10 Year Total Return Index, and the tactical overweight on Global Equity by the MSCI All Country World Index.
Source: UBS

**Table A NOTE**
**Historical performance measurement**

Prior to 25 January 2013, CIO Americas, WM published tactical asset allocation recommendations in the *Investment Strategy Guide* using a different set of asset classes and sectors. The performance of these tactical recommendations is reflected in Table C of the February 2017 House View *Investment Strategy Guide*. You can obtain a copy of the February 2017 House View from Online Services, or from your UBSFS financial advisor.

# Investment committee

**Global Investment Process and Committee description**
The UBS investment process is designed to achieve replicable, high-quality results through applying intellectual rigor, strong process governance, clear responsibility, and a culture of challenge.

Based on the analyses and assessments conducted and vetted throughout the investment process, the Chief Investment Officer (CIO) formulates the UBS Wealth Management Investment House View (e.g., overweight, neutral, underweight stances for asset classes and market segments relative to their benchmark allocation) at the Global Investment Committee (GIC). Senior investment professionals from across UBS, complemented by selected external experts, debate and rigorously challenge the investment strategy to ensure consistency and risk control.

**Global Investment Committee composition**
The GIC is comprised of 10 members, representing top market and investment expertise from across all divisions of UBS:

- Mark Haefele (Chair)
- Mark Andersen
- Jorge Mariscal
- Mike Ryan
- Simon Smiles
- Tan Min Lan
- Themis Themistocleous
- Paul Donovan
- Bruno Marxer (*)
- Andreas Koester

**WMA Asset Allocation Committee description**
We recognize that a globally derived house view is most effective when complemented by local perspective and application. As such, UBS has formed a Wealth Management Americas Asset Allocation Committee (WMA AAC). WMA AAC is responsible for the development and monitoring of UBS WMA's strategic asset allocation models and capital market assumptions. The WMA AAC sets parameters for the CIO Americas, WM Investment Strategy Group to follow during the translation process of the GIC's House Views and the incorporation of US-specific asset class views into the US-specific tactical asset allocation models.

**WMA Asset Allocation Committee composition**
The WMA Asset Allocation Committee is comprised of five members:

- Mike Ryan
- Michael Crook
- Richard Hollmann (*)
- Brian Rose
- Jeremy Zirin

(*) Business areas distinct from Chief Investment Office Americas, Wealth Management

# Cautionary statement regarding forward-looking statements

This report contains statements that constitute "forward-looking statements," including but not limited to statements relating to the current and expected state of the securities market and capital market assumptions. While these forward-looking statements represent our judgments and future expectations concerning the matters discussed in this document, a number of risks, uncertainties, changes in the market, and other important factors could cause actual developments and results to differ materially from our expectations. These factors include, but are not limited to (1) the extent and nature of future developments in the US market and in other market segments; (2) other market and macro-economic developments, including movements in local and international securities markets, credit spreads, currency exchange rates and interest rates, whether or not arising directly or indirectly from the current market crisis; (3) the impact of these developments on other markets and asset classes. UBS is not under any obligation to (and expressly disclaims any such obligation to) update or alter its forward-looking statements whether as a result of new information, future events, or otherwise.

# Explanations about asset classes

**Sources of strategic asset allocations and investor risk profiles**
Strategic asset allocations represent the longer-term allocation of assets that is deemed suitable for a particular investor. The strategic asset allocation models discussed in this publication, and the capital market assumptions used for the strategic asset allocations, were developed and approved by the WMA AAC.

The strategic asset allocations are provided for illustrative purposes only and were designed by the WMA AAC for hypothetical US investors with a total return objective under five different Investor Risk Profiles ranging from conservative to aggressive. In general, strategic asset allocations will differ among investors according to their individual circumstances, risk tolerance, return objectives and time horizon. Therefore, the strategic asset allocations in this publication may not be suitable for all investors or investment goals and should not be used as the sole basis of any investment decision. Minimum net worth requirements may apply to allocations to non-traditional assets. As always, please consult your UBS Financial Advisor to see how these weightings should be applied or modified according to your individual profile and investment goals.

The process by which the strategic asset allocations were derived is described in detail in the publication entitled "Strategic Asset Allocation (SAA) Methodology and Portfolios." Your Financial Advisor can provide you with a copy.

**Deviations from strategic asset allocation or benchmark allocation**
The recommended tactical deviations from the strategic asset allocation or benchmark allocation are provided by the Global Investment Committee and the Investment Strategy Group within CIO Americas, Wealth Management. They reflect the short- to medium-term assessment of market opportunities and risks in the respective asset classes and market segments. Positive/zero/negative tactical deviations correspond to an overweight/neutral/underweight stance for each respective asset class and market segment relative to their strategic allocation. The current allocation is the sum of the strategic asset allocation and the tactical deviation.

Note that the regional allocations on the Equities and Bonds pages in *UBS House View* are provided on an unhedged basis (i.e., it is assumed that investors carry the underlying currency risk of such investments) unless otherwise stated. Thus, the deviations from the strategic asset allocation reflect the views of the underlying equity and bond markets in combination with the assessment of the associated currencies. The detailed asset allocation tables integrate the country preferences within each asset class with the asset class preferences in *UBS House View*.

Asset allocation does not assure profits or prevent against losses from an investment portfolio or accounts in a declining market.

**Scale for tactical deviation charts**

| Symbol | Description/Definition | Symbol | Description/Definition | Symbol | Description/Definition |
|---|---|---|---|---|---|
| + | moderate overweight vs. benchmark | – | moderate underweight vs. benchmark | n | neutral, i.e., on benchmark |
| ++ | overweight vs. benchmark | – – | underweight vs. benchmark | n/a | not applicable |
| +++ | strong overweight vs. benchmark | ––– | strong underweight vs. benchmark | | |

Source: UBS

# Statement of risk

Equities - Stock market returns are difficult to forecast because of fluctuations in the economy, investor psychology, geopolitical conditions and other important variables.

Fixed income - Bond market returns are difficult to forecast because of fluctuations in the economy, investor psychology, geopolitical conditions and other important variables. Corporate bonds are subject to a number of risks, including credit risk, interest rate risk, liquidity risk, and event risk. Though historical default rates are low on investment grade corporate bonds, perceived adverse changes in the credit quality of an issuer may negatively affect the market value of securities. As interest rates rise, the value of a fixed coupon security will likely decline. Bonds are subject to market value fluctuations, given changes in the level of risk-free interest rates. Not all bonds can be sold quickly or easily on the open market. Prospective investors should consult their tax advisors concerning the federal, state, local, and non-U.S. tax consequences of owning any securities referenced in this report.

Preferred securities - Prospective investors should consult their tax advisors concerning the federal, state, local, and non-U.S. tax consequences of owning preferred stocks. Preferred stocks are subject to market value fluctuations, given changes in the level of interest rates. For example, if interest rates rise, the value of these securities could decline. If preferred stocks are sold prior to maturity, price and yield may vary. Adverse changes in the credit quality of the issuer may negatively affect the market value of the securities. Most preferred securities may be redeemed at par after five years. If this occurs, holders of the securities may be faced with a reinvestment decision at lower future rates. Preferred stocks are also subject to other risks, including illiquidity and certain special redemption provisions.

Municipal bonds - Although historical default rates are very low, all municipal bonds carry credit risk, with the degree of risk largely following the particular bond's sector. Additionally, all municipal bonds feature valuation, return, and liquidity risk. Valuation tends to follow internal and external factors, including the level of interest rates, bond ratings, supply factors, and media reporting. These can be difficult or impossible to project accurately. Also, most municipal bonds are callable and/or subject to earlier than expected redemption, which can reduce an investor's total return. Because of the large number of municipal issuers and credit structures, not all bonds can be easily or quickly sold on the open market.

# Appendix

**Emerging Market Investments**
Investors should be aware that Emerging Market assets are subject to, among others, potential risks linked to currency volatility, abrupt changes in the cost of capital and the economic growth outlook, as well as regulatory and sociopolitical risk, interest rate risk and higher credit risk. Assets can sometimes be very illiquid and liquidity conditions can abruptly worsen. CIO Americas, WM generally recommends only those securities it believes have been registered under Federal US registration rules (Section 12 of the Securities Exchange Act of 1934) and individual State registration rules (commonly known as "Blue Sky" laws). Prospective investors should be aware that to the extent permitted under US law, CIO Americas, WM may from time to time recommend bonds that are not registered under US or State securities laws. These bonds may be issued in jurisdictions where the level of required disclosures to be made by issuers is not as frequent or complete as that required by US laws.

For more background on emerging markets generally, see the CIO Americas, WM Education Notes "Investing in Emerging Markets (Part 1): Equities," 27 August 2007, "Emerging Market Bonds: Understanding Emerging Market Bonds," 12 August 2009 and "Emerging Markets Bonds: Understanding Sovereign Risk," 17 December 2009.

Investors interested in holding bonds for a longer period are advised to select the bonds of those sovereigns with the highest credit ratings (in the investment-grade band). Such an approach should decrease the risk that an investor could end up holding bonds on which the sovereign has defaulted. Subinvestment-grade bonds are recommended only for clients with a higher risk tolerance and who seek to hold higher-yielding bonds for shorter periods only.

**Nontraditional Assets**
**Nontraditional 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-US 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 US dollars, changes in the exchange rate between the US 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 US investor.

# Disclaimer

Research publications from Chief Investment Office Americas, Wealth Management, formerly known as CIO Wealth Management Research, are published by UBS Wealth Management and UBS Wealth Management Americas, Business Divisions of UBS AG or an affiliate thereof (collectively, UBS). In certain countries UBS AG is referred to as UBS SA. This publication is for your information only and is not intended as an offer, or a solicitation of an offer, to buy or sell any investment or other specific product. The analysis contained herein does not constitute a personal recommendation or take into account the particular investment objectives, investment strategies, financial situation and needs of any specific recipient. It is based on numerous assumptions. Different assumptions could result in materially different results. We recommend that you obtain financial and/or tax advice as to the implications (including tax) of investing in the manner described or in any of the products mentioned herein. Certain services and products are subject to legal restrictions and cannot be offered worldwide on an unrestricted basis and/or may not be eligible for sale to all investors. All information and opinions expressed in this document were obtained from sources believed to be reliable and in good faith, but no representation or warranty, express or implied, is made as to its accuracy or completeness (other than disclosures relating to UBS). All information and opinions as well as any prices indicated are current only as of the dateof this report, and are subject to change without notice. Opinions expressed herein may differ or be contrary to thoseexpressed by other business areas or divisions of UBS as a result of using different assumptions and/or criteria. At any time, investment decisions (including whether to buy, sell or hold securities) made by UBS and its employees may differ from or be contrary to the opinions expressed in UBS research publications. Some investments may not be readily realizable since the market in the securities is illiquid and therefore valuing the investment and identifying the risk to which you are exposed may be difficult to quantify. UBS relies on information barriers to control the flow of information contained in one or more areas within UBS, into other areas, units, divisions or affiliates of UBS. Futures and options trading is considered risky. Past performance of an investment is no guarantee for its future performance. Some investments may be subject to sudden and large falls in value and on realization you may receive back less than you invested or may be required to pay more. Changes in FX rates may have an adverse effect on the price, value or income of an investment. This report is for distribution only under such circumstances as may be permitted by applicable law.

Distributed to US persons by UBS Financial Services Inc. or UBS Securities LLC, subsidiaries of UBS AG. UBS Switzerland AG, UBS Deutschland AG, UBS Bank, S.A., UBS Brasil Administradora de Valores Mobiliarios Ltda, UBS Asesores Mexico, S.A. de C.V., UBS Securities Japan Co., Ltd, UBS Wealth Management Israel Ltd and UBS Menkul Degerler AS are affiliates of UBS AG. UBS Financial Services Incorporated of PuertoRico is a subsidiary of UBS Financial Services Inc. UBS Financial Services Inc. accepts responsibility for the content of a report prepared by a non-US affiliate when it distributes reports to US persons. All transactions by a US person in the securities mentioned in this report should be effected through a US-registered broker dealer affiliated with UBS, and not through a non-US affiliate. The contents of this report have not been and will not be approved by any securities or investment authority in the United States or elsewhere. UBS Financial Services Inc. is not acting as a municipal advisor to any municipal entity or obligated person within the meaning of Section 15B of the Securities Exchange Act (the "Municipal Advisor Rule") and the opinions or views contained herein are not intended to be, and do not constitute, advice within the meaning of the Municipal Advisor Rule.

UBS specifically prohibits the redistribution or reproduction of this material in whole or in part without the prior written permission of UBS. UBS accepts no liability whatsoever for any redistribution of this document or its contents by third parties.

Version as per October 2017.

# Publication details

**Publisher**
UBS Financial Services Inc.
CIO Americas, Wealth Management
1285 Avenue of the Americas, 20th Floor
New York, NY 10019

This report was published
on 20 October 2017

**Lead authors**
Mark Haefele
Mike Ryan

**Authors** (in alphabetical order)
Matt DeMichiel
Paul Donovan
Jason Draho
Leslie Falconio
Thomas Flury
Ricardo Garcia-Schildknecht
Wayne Gordon
Markus Irngartinger
Laura Kane
David Lefkowitz
Barry McAlinden
Kathleen McNamara
Brian Rose
Dominic Schnider
Philipp Schoettler
Frank Sileo
Giovanni Staunovo
Thomas Veraguth
Justin Waring
Jeremy Zirin

**Editor**
Kate Hazelwood

**Project Management**
Paul Leeming
John Collura
Matt Siegel

**Desktop Publishing**
Cognizant Group—Basavaraj Gudihal,
Srinivas Addugula, Pavan Mekala
and Virender Negi

# UBS House View Monthly Call

A unique opportunity to hear the House View explained
and to interact directly with CIO Americas, WM's thought leaders.

**The next call will be on:**
**Thursday, November 2 at 1:00 PM ET / 10:00 AM PT**

Dial in: 1-877-200-4456
Passcode: 46502#

## Also from CIO Americas Wealth Management





UBS Financial Services Inc.
www.ubs.com/financialservicesinc

UBS Financial Services Inc. is a subsidiary of UBS AG.

UBS