

# Year Ahead 2020

UBS House View

**Global**

Chief Investment Office GWM

Investment Research



The Year of Choices

The Decade of Transformation



# Publication instruction manual

1

**Read carefully** before attempting to operate.

2

## How to navigate



Locate this icon to find out what other investors are thinking, fresh from the UBS Investor Watch report.



Locate this icon for tips on building a financial plan that aligns to your goals.



Locate this icon for sustainable investment ideas and insights.

Use these leading lines to find the focal point in a complex environment – political, geopolitical, or otherwise.

3

## Care and handling

Do not dispose. Keep in a safe place for the duration of 2020 and beyond.

4

## Best areas for use



Office



Bath



Vacation



Bed



Travel

5

**Open this flap** for content highlights.

6

## Declaration



This report has been prepared by UBS AG, UBS Switzerland AG and UBS Financial Services Inc. Please see the important disclaimer at the end of the document.

# 10 for 2020

1. **Growth muted.** We expect growth to remain muted as the world adjusts to new political realities.
2. **Two-way uncertainty.** In areas ranging from the US election to trade negotiations and economic policy, two-way uncertainty is higher than usual. Investments less exposed to the outcomes of political choices are preferable.
3. **Diversify before US election.** The US technology, energy, financial, and healthcare sectors could be subject to volatility stemming from increased regulatory scrutiny. Diversification is key.
4. **Domestic and consumer.** In a more protectionist world, companies that rely on domestic and consumer spending look more resilient than those exposed to foreign and business spending.
5. **Dividends and quality.** In this environment, we think dividend and quality (including ESG) stocks are well positioned.
6. **Prefer EM debt.** Yields on the safest bonds are low, while risks are rising among some high yield issuers. We recommend emerging market US dollar-denominated sovereign debt and opting for bonds supporting sustainability and related purposes over traditional bonds.
7. **Weaker dollar.** We see the US dollar weakening and favor a combination of safer and higher yielding currencies.
8. **Gold to outperform.** Gold should outperform more cyclical commodities, in our view.
9. **Low-beta alternatives.** We prefer private market strategies less dependent on the macro backdrop, and relative value and market neutral strategies within hedge funds.
10. **Real estate risks.** Risks in the owner-occupied housing market are elevated in a range of major cities. Investors should seek commercial real estate exposed to long-term trends like e-commerce and rental housing-oriented real estate.

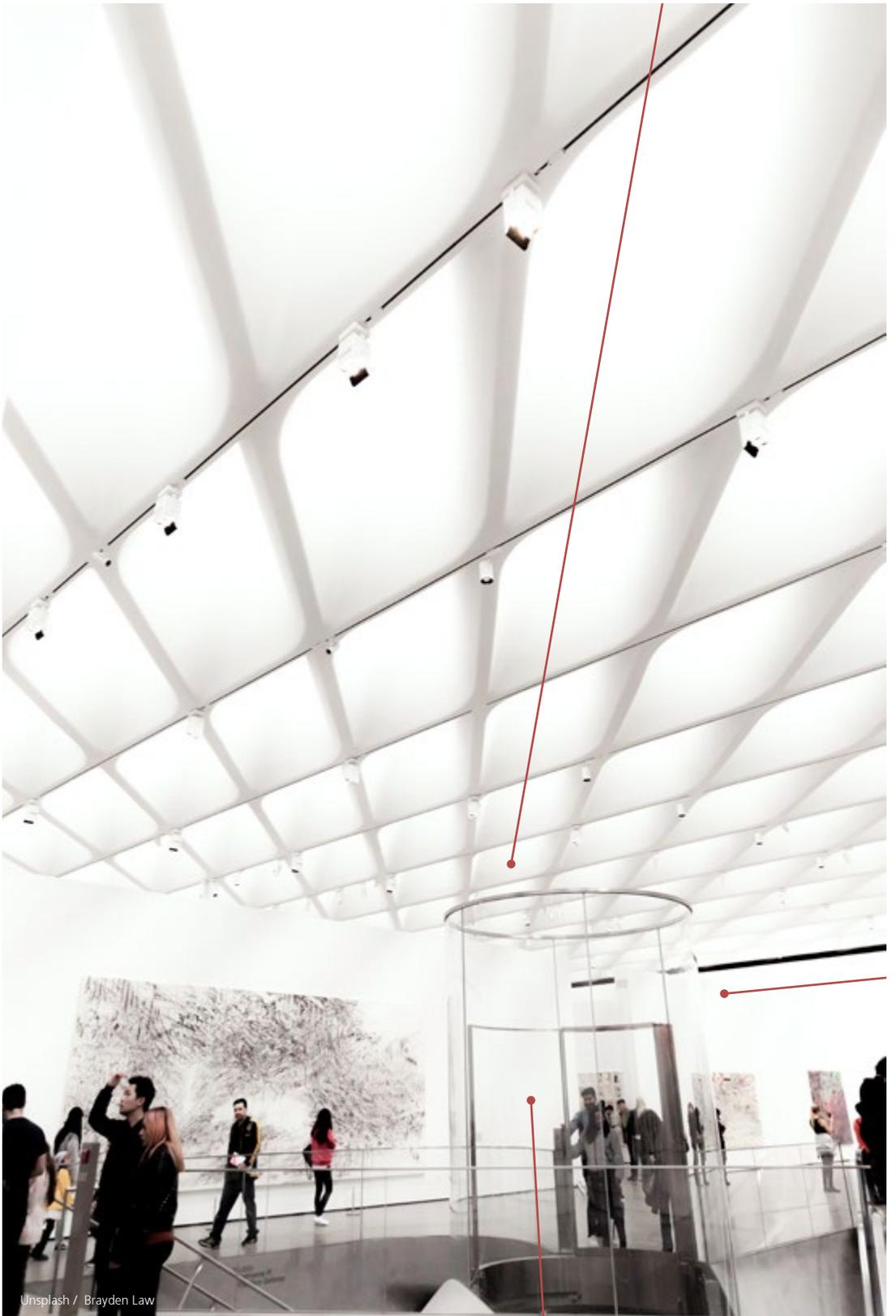
---

● The Year of Choices

# 10 for 2030

1. **Challenges.** Over the next decade, we expect working-age populations in high-income countries to shrink, deglobalization to gain momentum, and a less favorable political backdrop for high-income individuals to emerge.
2. **Changes.** Increased coordination between governments and central banks could spur greater economic growth, or end in inflationary catastrophe.
3. **Disruption.** Major environmental and technological movements and advances are likely to disrupt existing norms.
4. **Lower returns.** Overall, we anticipate lower returns and higher volatility for most financial assets than in the past decade.
5. **Time to adapt.** Investors targeting a given level of return may need to increase their holdings of equities or accept lower returns.
6. **Leverage an option.** With rates likely to remain low, investors could also consider utilizing leverage in the context of their financial plan.
7. **Build your plan.** We think the Liquidity. Longevity. Legacy. approach can help you align your investments with your goals, enabling you to balance the risks and opportunities of the decade ahead.
8. **Benefit from growth.** We see opportunity in companies that enable and benefit from digital transformation and genetic therapies, and in those alleviating water scarcity.
9. **Position with sustainability.** By shifting toward sustainability-focused investments, we think investors will be better positioned to benefit from what are likely to be the most significant trends over the next decade.
10. **Adapt your business.** Entrepreneurs also need to consider how to adapt their businesses to the effects of demographic and technological change, and potentially stiffer labor, trade, and environmental regulations.

## ● The Decade of Transformation



# Foreword

Welcome to our *Year Ahead 2020*, UBS's outlook on the coming year.

As 2020 approaches, many investors are feeling anxious, with geopolitical tensions a primary source of their unease. UBS's recent Investor Watch survey revealed that 79% of investors think we are entering a period of higher volatility, with 66% viewing markets as driven more by geopolitical events than fundamentals.

In what we call "The Year of Choices," we offer our view on how to navigate these markets. From the US presidential election to trade negotiations and fiscal policy, political choices will increasingly shape outcomes. In the pages that follow, we explain how we think these choices will play out, and how you can mitigate the risks they pose to portfolios.

The underlying forces complicating political and economic choices will only grow in importance over the longer term. In the decade to come, working-age populations in developed countries will begin to shrink, and a less favorable political backdrop could emerge for higher-income individuals. We also expect significant environmentally and technologically led innovations to disrupt existing norms in a deglobalizing world.

Yet investors will also enjoy ample chances to benefit from a "Decade of Transformation" that will redefine our world. From game-changing technologies to the forward-thinking companies driving the transition to a more sustainable economy, opportunities will abound to invest in the ideas that shape the future.

In a time characterized by uncertainty, sound advice is of paramount importance. We hope *Year Ahead 2020* helps you make the most of a future that is yet to be defined.



A handwritten signature in black ink, appearing to read 'Iqbal Khan'.

Iqbal Khan



A handwritten signature in black ink, appearing to read 'Tom Naratil'.

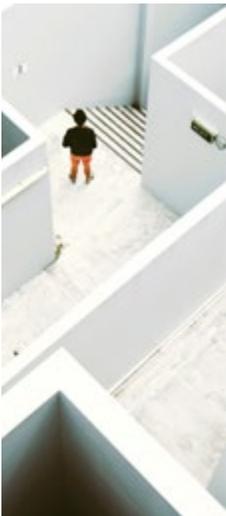
Tom Naratil

# Highlights

## The Year of Choices

Our outlook for 2020, and answers to the top questions facing investors in the year ahead.

9



## Investment views

Our views on the top investment ideas in major asset classes in 2020.

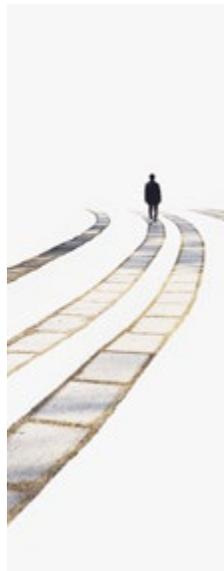
23



## The Decade of Transformation

The trends shaping our world in the decade ahead, and their investment impact.

33



## Planning for the decade ahead

How to plan and invest for the decade to come.

45



# The Year of Choices

- 9 The Year of Choices
- 13 Top questions
- 13 “What does the US election mean for my portfolio?”
- 18 “How do I invest in a protectionist world?”
- 20 “How should I invest in a late-cycle, low-yield world?”
- 23 Investment views
- 23 Equities
- 27 Fixed income
- 29 Currencies, commodities, alternatives, real estate

# The Decade of Transformation

- 33 The Decade of Transformation
- 34 The world in 2030
- 36 Six key transformations
- 41 Our return assumptions
- 45 Planning for the decade ahead
- 49 Top longer-term investments
- 53 Effecting change
- 55 Transforming your business
- 58 Appendix
- 58 2019 in review
- 59 Economic forecasts



To find out more about the Year Ahead 2020, visit [ubs.com/year-ahead](https://ubs.com/year-ahead)



# The Year of Choices

In 2019, global economic growth looks to have fallen to a post-financial crisis low due to slowdowns in the US, Europe, and China. Although the labor market and consumption remained relatively healthy, fixed investment and trade growth weakened as the US-China trade conflict impacted business confidence.



Mark Haefele  
Chief Investment Officer  
Global Wealth Management

In our base case, we expect sub-trend growth to continue into 2020. But in a Year of Choices – for policymakers, electorates, and investors alike – the two-way uncertainty around our base case is greater than usual.

## We see three key “choices” defining outcomes:

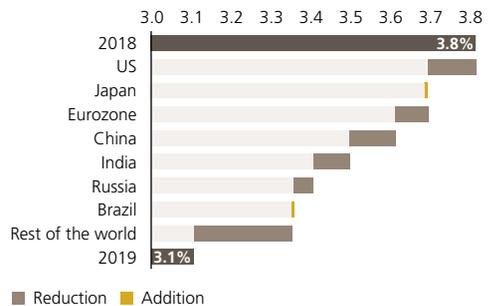
### 1. Stick or twist?

Elections will take place in the US and, in December 2019, the UK. The issues up for grabs include how to structure a healthcare system for an aging population, growing income inequality, the role of the nation-state in an interconnected world, technological change, and who pays for environmental damage. The polarization between candidates, magnitude of issues, and market capitalization of the US and UK markets make these elections relevant for investors around the world. How each issue is decided will shape global trends and define sectoral winners and losers. For more on what’s at stake

## 1.1

### Global growth slowed in 2019...

Change in global growth, attributed to select regions



Source: Haver, CEIC, national statistics, UBS, as of 11 November 2019

in the US vote and what it may mean for investors, please see “*What does the US election mean for my portfolio?*” on page 13.

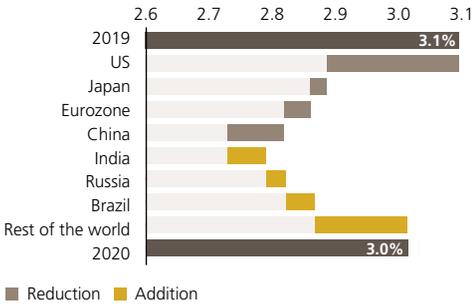
### 2. Deal or no deal?

China’s competition with the US in the economic, technological, and geopolitical spheres creates an ongoing challenge to the previous world order that will not be easily resolved. In an era of “deglobalization,” the trade turmoil

1.2

### ... and looks to remain slow in 2020

Change in global growth, attributed to select regions



Source: Haver, CEIC, national statistics, UBS, as of 11 November 2019

between the two nations could flare up again in 2020, even if an interim deal is reached soon. But, equally, both sides have key influencers who would prefer to curb tensions. A deal to reduce or remove existing tariffs and a pledge to stop adding more could dramatically reduce global economic uncertainty, unlock pent-up investment demand, and

enable US President Donald Trump to “declare victory” in an election year. For more on how to respond to this trend, turn to “How do I invest in a protectionist world?” on page 18.

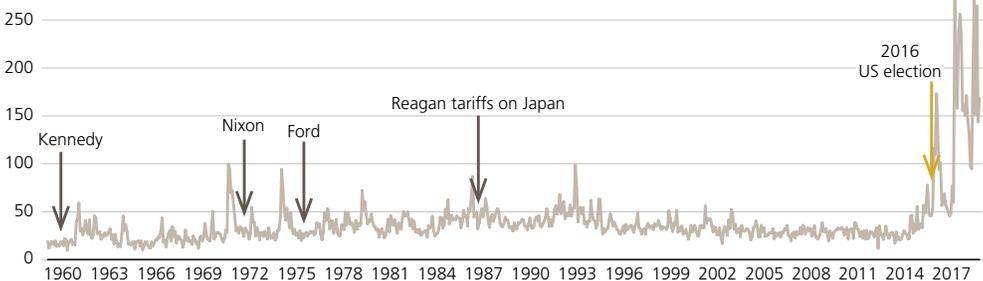
### 3. Monetary or fiscal?

With interest rates already close to, at, or below zero, the effectiveness of traditional monetary policy is now diminished, leaving us to consider the role of fiscal policy in stimulating growth. Given a divided US Congress, Eurozone budget constraints, and China’s concerns about managing leverage, meaningful fiscal stimulus in 2020 appears unlikely, in our view. But low inflation and interest rates do provide the leeway to take a fresh look at the role of government spending, and coordinated fiscal and monetary action could offer material upside to our growth expectations, even if it might require a “mini-crisis” to force policymakers to reassess their current approach. For more on how to think about investing against this backdrop, see “How should I invest in a late-cycle, low-yield world?” on page 20.

1.3

### Trade policy uncertainty reached unprecedented levels in 2019

Measured through the frequency of articles in US newspapers that contain references to trade policy and that discuss policy-related economic uncertainty, monthly data



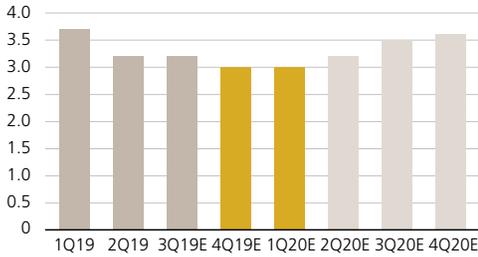
Note: y-axis is a logarithmic scale

Source: Caldara, Dario, Matteo Iacoviello, Patrick Molligo, Andrea Prestipino, and Andrea Raffo “The Economic Effects of Trade Policy Uncertainty,” International Finance Discussion Paper, Federal Reserve Board of Governors, as of 10 October 2019

1.4

## We expect growth to bottom out in 4Q19 and 1Q20

Global real GDP growth, quarter-over-quarter, in %



E = Estimate

Source: Haver, CEIC, national statistics, UBS, as of 11 November 2019



## 79%

A full 79% of investors think we are entering a period of higher volatility; 66% think markets are driven more by geopolitical events than business fundamentals; and 58% regard investment returns as more out of their control than in the past.

Source: UBS Investor Watch on the Year Ahead, "Decisions, decisions," 2 Volume 2019

Plainpicture / DEEPOL



## Investing in 2020

Ultimately these choices are political decisions that financial markets find hard to price, leaving many investors reluctant to take risks. But by choosing investments that are less exposed to these political decisions, investors can reassert some control over their portfolios and, in our view, better prepare themselves for the future. Building a robust portfolio in the Year of Choices involves making the following investment decisions:

- **Within equities**, we recommend opting for quality and dividends in a late-cycle, low-yield world. We also advise diversifying globally while choosing domestic and consumer-focused companies that are likely to provide more reliable returns than those exposed to trade and business spending, which remain dependent on favorable political outcomes to drive performance (see page 23).
- **In fixed income**, we suggest a middle-of-the-road approach in light of the very low yields on the safest debt and the rising credit risks among some high yield issuers. We favor emerging market sovereign debt, select “crossover” names in Europe, and higher-quality issuers within Asian high yield (see page 27). Investors can also seek sustainable alternatives to traditional bonds.

- **Elsewhere**, we opt for precious metals over cyclical commodities, for a barbell combination of safe-haven and higher-yielding currencies to outperform the US dollar (see page 29), and for a low beta posture within alternatives.



### Choosing your plan

For most investors the best “choice” they can make in 2020 is to filter out the political noise and invest for the long term. The majority of investment performance is driven by choosing the right strategic asset allocation, and investment success is driven by ensuring this is well aligned with personal financial goals. Throughout this report we will cover topics related to our Liquidity. Longevity. Legacy. approach to financial planning. See page 45 for more on this approach.

Liquidity. Longevity. Legacy. disclaimer:

Timeframes may vary. Strategies are subject to individual client goals, objectives, and suitability. This approach is not a promise or guarantee that wealth, or any financial results, can or will be achieved.



Unsplash / Joshua Ness

Top questions

“What does the US election mean for my portfolio?”

Investors should not position in the hope or expectation of a specific outcome to the presidential election. Instead, we think diversification is key. The US is one of our preferred markets, but US stocks could face higher volatility as the election approaches, and some individual sectors – such as technology, energy, financials, and healthcare – could suffer from price swings due to the risk of heightened regulatory scrutiny.

On 3 November 2020, the US electorate will choose who will occupy the White House through 2024, as well as the makeup of Congress. The country's chief executive sets the direction of policy, but implementation depends heavily on the composition of Congress. All seats in the House of Representatives are up for grabs, as usual, while to regain control of the Senate, the Democrats require only a four-seat swing, and 23 of the 35 seats being contested feature Republican incumbents.



**45%**

Investors are divided about which outcome would be most favorable for markets: 45% expect a positive impact if the Democratic candidate wins, 40% if President Trump prevails.

Source: UBS Investor Watch on the Year Ahead, "Decisions, decisions," 2 Volume 2019

## What are the key issues for investors?

National elections tend not to affect global investors substantially. But the US presidential vote is an exception to that rule. The US comprises around 55% of the MSCI All Country World index, the Treasury bond yield is a benchmark for global financial asset valuation, and the US dollar is involved in 88% of currency transactions worldwide. So investors both inside and outside the country will need to monitor the debates that touch on a number of key issues.

### Corporate taxes

Tax reform under the Trump administration lowered corporate taxes from 35% to 21%, helping boost S&P 500 earnings by close to 10%. If President Trump is reelected we would expect current corporate tax rates to remain the same.

Democratic candidates have put forward various proposals to increase corporate taxes. Former Vice President Joe Biden has discussed a 28% rate, which we estimate would lower S&P 500 earnings by 3%–4%. Massachusetts Senator Elizabeth Warren's proposals, including a 7% additional rate on profits above USD 100m, would have a roughly 7% impact.

## US election probabilities implied in betting markets

Democrat			Republican	
Warren 30%	Biden 21%	Candidate	Trump 79%	Pence 10%
53%		Presidency	46%	
73%		House control	27%	
35%		Senate control	65%	

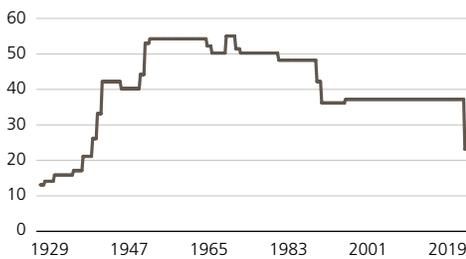
Source: PredictIt, as of 11 November 2019

Debates on this topic could increase volatility in the run-up to the election, but raising taxes would require congressional approval, and passing such a tax hike would only be likely if Democrats secure the White House and a large majority in Congress.

2.1

### Corporate taxes are a key variable

US corporate tax rate, in %

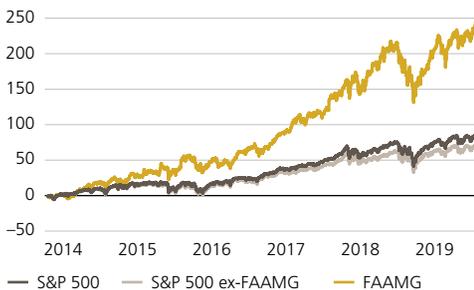


Source: Internal Revenue Services, UBS, as of 22 October 2019

2.2

### Tech regulation is a potential risk

Performance of FAAMG (Facebook, Amazon, Apple, Microsoft, Google) stocks, S&P 500 with/without FAAMG



Source: Bloomberg, UBS, as of 5 November 2019

### Trade policy

The US-China trade conflict has been among the primary drivers of market volatility over the course of the past year.

Although there have been signs of reconciliation between China and the US in 4Q19, investors might fear that a reelected President Trump, no longer facing a future election, could become more adversarial with China. He has already warned that a deal negotiated in his second term would be “far worse.” Meanwhile, his political rivals’ trade rhetoric suggests that a Democratic president would be unlikely to adopt a more conciliatory approach.

For more on how to respond to trade policy risks, please see *“How do I invest in a protectionist world?”* on page 18.

### Technology regulation

The world’s five largest listed companies are US technology firms – together they make up 16% of the S&P 500 market value and 8% of the MSCI All-Country World – and have contributed around 15% to the performance of the US market over the past five years.

Investors should prepare for greater scrutiny of big tech, in our view. President Trump has previously signaled that the tech giants could face scrutiny from antitrust regulators, and the Department of Justice is already conducting a review. Among the Democrats, Warren has released a “How we can break up Big Tech” plan, while Biden has urged further investigation before taking any action.

But although discussions on this topic could exacerbate volatility at the US tech giants, we think meaningful legislation to reduce their market share is unlikely in the near term.

Proving that internet companies are monopolies is difficult; antitrust cases can take a long time to build and litigate; and presidents cannot dismantle companies on their own.

Investors concerned about increased regulation could consider diversifying exposure by shifting focus from the larger tech firms to other companies benefiting from long-term digital transformation. For more, see page 49.

### **Environmental legislation**

The Trump administration has loosened environmental regulations, and this trend would likely continue in a second term, while any Democratic president would almost certainly retighten them.

Bigger policy changes such as the Green New Deal are unlikely to pass if Congress is divided. However, the carbon-based energy sector may well come under pressure from measures to curb carbon emissions, and the exploration and production subsector could be affected if a President Warren followed through on her pledge to ban fracking by executive order, even if the legal status of such a move is unclear.

By contrast, we would expect companies connected to clean energy, clean air, carbon reduction, and energy efficiency to perform better under a Democratic administration, so they could offer a potential “hedge” against the risk of more aggressive environmental legislation.

### **Redistribution**

A reelected President Trump would try to make the personal tax cuts enacted in 2017 permanent. Under a Democratic administration, however, income tax rates for wealthy Americans would likely go up, in our view,

with the federal minimum wage and Social Security payments probably rising as well.

Proposals like a wealth tax are unlikely to be passed without a sizable Democratic majority in Congress, but a higher top income or capital gains tax rate is more plausible.

Proposals for higher minimum wage and social security payments, if enacted, would also feed into our broader theme of choosing to add exposure to consumer rather than business spending in 2020.

### **Health reform**

The Affordable Care Act (ACA) has been weakened under President Trump. Democrats still favor the ACA – Biden aims to preserve most of it, and build on it with a new government-run public insurance option. Warren advocates “Medicare for All,” which would cost the US government about USD 32–33trn over 10 years, although any such bill would be unlikely to pass without a Democratic supermajority in the Senate.



## **Flexibility is key**

When it comes to tax planning, maximizing flexibility can be far more effective than strategies that rely on accurate forecasts of tax rates. Many investors are already building flexibility simply by saving across a mix of taxable, tax-deferred, and tax-exempt accounts. When this is paired with a careful strategy in retirement, investors can effectively manage their tax liabilities without compromising on meeting their goals if tax rates differ from expectations.

If the Democrats win, therefore, a move toward greater provision of public healthcare is likely, as is a form of restriction on the prices drug companies can charge, which already enjoys some bipartisan support. Limits to pricing power would hurt the healthcare sector and the pharmaceutical industry.



## Planning your health-related needs

According to our estimates, the average 65-year-old healthy couple retiring in 2019 in the US will spend USD 300,000–600,000 on healthcare costs in retirement, and that's before long-term care costs. Yet just 12% of US residents have done specific planning for healthcare expenses in retirement, according to The Journal of Retirement. Health-related needs vary by person and by country, but everyone should include healthcare costs and consider the potential of requiring long-term care assistance when estimating future spending in retirement.

Gettyimages



# “How do I invest in a protectionist world?”

The trade dispute between the US and China has hampered business investment and hurt companies exposed to global trade. In the year ahead, volatility among trade- and investment-dependent companies is likely to remain elevated, with returns dependent on political choices. We therefore recommend seeking domestic- and consumer-oriented investments, which should deliver more reliable returns, while also looking for long-term beneficiaries of the deep-seated US-China rivalry.

The world is transitioning toward an era of deglobalization (see page 37) with rivalry between the US and China fueling the trend. While policymakers could choose to slow the pace of this transition in 2020, it is unlikely to reverse, in our view. The two countries have made some progress toward hammering out a partial interim trade deal, but their longer-term positions are staked out, and we see little to suggest a more substantially conciliatory approach will be adopted even after the US presidential election.

The move away from globalization is also occurring beyond the US-China conflict. Brexit is likely to result in greater frictions in UK-EU trade; Japan has taken steps to limit technology exports to Korea; and the US has threatened to impose tariffs on European goods. Elsewhere, controls over foreign ownership on national security grounds are becoming more commonplace.



**44%**

of investors are highly worried about the trade conflict affecting their portfolios in 2020. Fewer than half (45%) expect it to be resolved before the US presidential election.

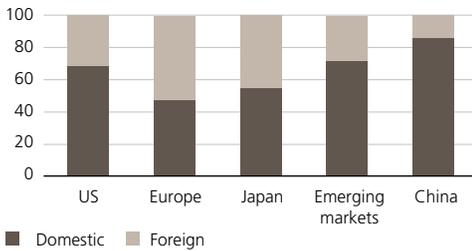
Source: UBS Investor Watch on the Year Ahead, “Decisions, decisions,” 2 Volume 2019

In the face of deglobalization, investors should globalize their own portfolios to mitigate the risks of specific trade-related positions, while also looking for the relative winners from the US-China rivalry. It will also be important to stay nimble. With protectionism becoming a feature of the year ahead, trade-exposed markets like Korea, Taiwan, and the Eurozone could rally markedly if an agreement to roll back tariffs is reached.

2.3

## Europe is the market most exposed to global trade

Domestic vs. foreign exposure for listed companies in select regions, in %

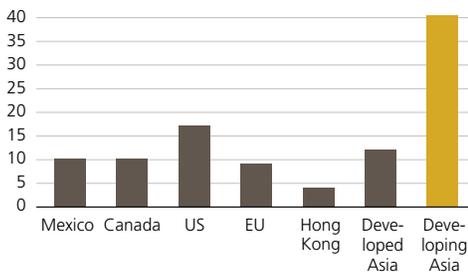


Source: Morgan Stanley, as of 30 May 2019

2.4

## Trade tensions could create new opportunities

% of surveyed US companies operating in China that have moved, or plan to move, capacity to the following regions



Source: American Chamber of Commerce China, 2019 China Business Climate Survey, as of 16 December 2018

### Choose domestic over global

It is important for investors to diversify globally to reduce their exposure to individual risks. But we also think that countries and sectors that derive a high proportion of their revenues domestically are likely to be more stable choices in a more protectionist world. In this regard, we like the US and Chinese markets, and are cautious on the Eurozone. For more, see page 25.

### Prefer consumer to business spending

The transition to a protectionist environment will generally favor companies that depend more on consumer than business spending, in our view. While consumers ultimately bear the cost of higher tariffs, their small spending decisions are less vulnerable to geopolitical uncertainty than major business capital expenditures. Recently, manufacturing has borne the brunt of the trade-related slowdown, while consumer-facing sectors have proved more resilient. We like the US consumer discretionary sector, while materials and IT are our least preferred sectors globally. For more, see page 25.

### Look for future beneficiaries

If the US-China tensions persist, emerging market infrastructure could offer opportunities as supply chains adjust and boost demand for infrastructure outside China. Some companies are already shifting their supply chains to Vietnam, Malaysia, and Thailand, promising economic and market upside. The rising relative cost of labor in China is also driving a transition toward markets like India. More generally, we expect greater infrastructure spending to take place across Southeast Asia in 2020, particularly in the Philippines, Malaysia, and Thailand.

# “How should I invest in a late-cycle, low-yield world?”

The global economy is close to completing its 10th consecutive year of more than 3% growth, and bond yields are close to multi-year lows. This combination is contributing to anxiety among investors. We recommend tilting portfolios toward quality and yield, and considering explicit downside protection. Investors under-invested in the market should think about phasing strategies.

 **55%**  
of investors say they expect a significant drop in the markets before the end of 2020.

Source: UBS Investor Watch on the Year Ahead, “Decisions, decisions,” 2 Volume 2019

The global economy is now a full decade into a historic expansion. Global growth has not slipped below 3% in the past 10 years, the longest such run since the 1960s. The US is entering a record 11th year of expansion. Furthermore, investors have enjoyed impressive returns in almost all financial assets over the past decade. So it is easy to perceive a recession as long overdue. With prospective returns likely to be limited (see page 41), it is tempting to consider retreating to the safety of cash and awaiting a better entry point for risky assets.

While it is possible a better entry point could arise in 2020, there is no guarantee of it. In particular, a US-China trade deal or a move

toward greater monetary and fiscal policy coordination could extend the cycle and lift markets (see *Scenario Analysis* on page 22). The Federal Reserve has also shown greater willingness in this cycle to act pre-emptively to forestall slower growth. And, one benefit of the relatively slow pace of economic growth in recent years is that few of the imbalances typically associated with the end of an economic cycle are evident.

Investors may regard the cost of missing a modest rally as tolerable, but that begs the question of whether they would then be willing to buy in when the market is higher. It is easy to get caught in a recurring trap of waiting for a sell-off as the market sets new highs. This trap can be particularly expensive over the long term, when central bank policy is making cash and bonds unappealing.

Nonetheless, the Year of Choices is no time to be taking undue risks, and it is understandable to want to limit exposure to a possible recession. But how can you do this while not

running the risk of being perennially caught on the sidelines?

For investors holding a portfolio and wondering whether now is the right time to reduce exposure, we highlight select investment strategies:

- **Tilt toward quality and dividends.** In a late-cycle, low-yield environment, we believe investors should tilt their equity holdings toward quality and dividend investments. For more details, see page 24.
- **Invest with protection.** Investors worried about market downside could consider strategies to reduce volatility or add explicit protection. They might increase their diversification via dynamic or systematic allocation strategies, or through structured solutions such as notes that offer a degree of capital protection.



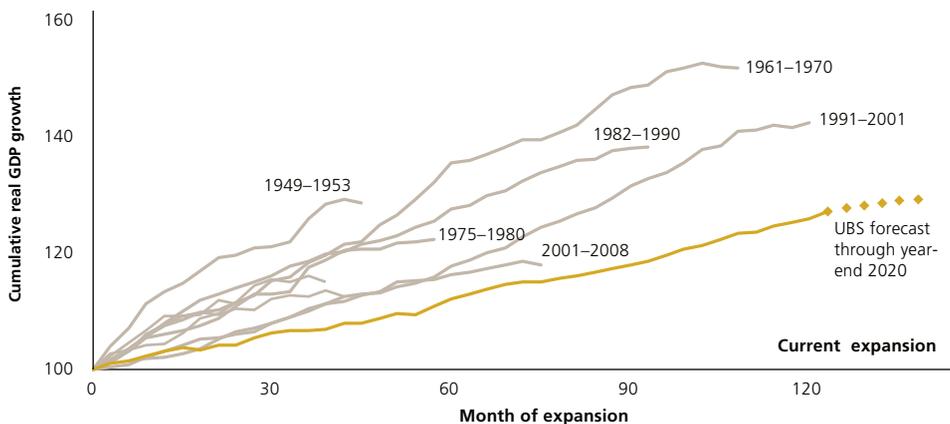
## Reframing time horizons

Before making major changes to your portfolio, it is important to approach investment-related decisions through the lens of your overall financial plan to ensure assets are aligned with your specific needs and their respective time horizons. Financing longer-term goals usually does not require focusing on market timing. And for those assets that will not be needed for at least a single economic cycle, there are plenty of opportunities within our longer-term investment themes (see page 49), as well as in private market investments.

2.5

## The current expansion has been long, but slow

Cumulative real GDP growth of US postwar expansions



Source: UBS, St. Louis Federal Reserve, as of 1 October 2019

And for investors holding cash waiting for the right time to invest:

– **Phasing.** On average, investing cash deposits straightaway is the best option. Historically, for a US 60% stock, 40% bond portfolio, phasing in cash over 12 months would have underperformed an all-at-once approach by an average of 4.4ppts. Still, this opportunity cost may be preferable for some investors, particularly if they are deploying a large lump-sum deposit, in which the potential cost of poor timing is greater. These investors could set a schedule for deploying capital – including a plan to speed up purchases if a dip-buying opportunity presents itself – to reduce opportunity cost while also managing the risk of regret.

– **Put writing.** A put writing strategy might be relevant for investors who expect range-bound markets and higher volatility, for those looking to buy into market dips in a disciplined way, or for those looking to diversify their sources of portfolio income in a low-yield world. Writing put options gives other investors the right to sell them a security at an agreed-upon price in the future, in exchange for a premium. If the market rallies, the put writer would miss out on price gains, but would retain the premium. If a sell-off occurs, the put writer would still earn the premium, but would be obliged to buy the security at the agreed-upon strike price (which could be higher than prevailing market levels).

## Scenario analysis

In a Year of Choices we do not recommend positioning in a way that is overly dependent on a given scenario materializing. To identify opportunities and manage risks effectively, we seek to understand the range of outcomes, probabilities, and potential market impacts.

Scenario	“Choice” outcomes	Probability	Potential market impact over 6m
Growth boost	Trade deal / coordinated stimulus	10%–15%	– S&P 500 total return: 5%–10% – US 10-year yield: 3.0%–3.5% – EURUSD: 1.20–1.30
Stable growth	Limited deal / fiscal stimulus	50%–55%	– S&P 500 total return: 0%–5% – US 10-year yield: 1.75%–2.25% – EURUSD: 1.15–1.20
Slowdown	No deal / monetary stimulus	25%–30%	– S&P 500 total return: –10% to –15% – US 10-year yield: 0.75%–1.25% – EURUSD: 1.10–1.15
Recession	Trade escalation/ monetary stimulus	10%–15%	– S&P 500 total return: –25% to –35% – US 10-year yield: 0.25%–0.75% – EURUSD: 1.05–1.10

Source: UBS



Plainpicture / Achim Bunz

Investment views

# Equities

Global equities have delivered positive returns over the past 12 months against a backdrop of slowing growth and falling interest rates. Our base case, as we enter 2020, posits muted stock market performance for the

year, but we note the two-way uncertainty in our Year of Choices. In this environment, we seek more reliable returns by focusing on quality and yield, domestic exposure, and consumer spending.

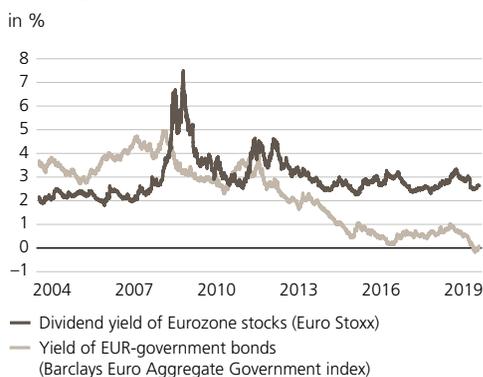
## Look for quality and dividends

In 2020, we forecast equity earnings to increase by around 5% in the US and 6% in emerging markets, and to contract by 3% in the Eurozone. Meanwhile, with global central banks having cut rates to prolong the expansion, investors are likely to continue to hunt for yield. In this environment, we think investors should prioritize both quality and dividends:

- **Globally**, we prefer quality companies with higher profitability, lower financial leverage, and less earnings volatility than the overall index. Such companies tend to perform relatively better during periods of economic slowdown and recession.
- **In the US**, we position our Dividend Ruler strategy with a bias toward higher-yield, higher-quality companies compared to the overall market. We continue to believe this focus on high-quality companies should provide some downside protection if economic risks rise.
- **In Asia**, dividend yields are higher than their historical average, and we see scope for dividend growth. We like high-dividend yielding stocks in markets where the dividend yield on stocks is higher than the yield on government bonds, particularly in Singapore, Hong Kong, Thailand, and Taiwan.
- **In Japan**, one of our preferred markets as we enter 2020, we believe Japanese real estate investment trusts are well positioned to benefit in a low-yield environment.

3.1

### Dividend yields look attractive vs. bond yields



Source: FactSet, UBS, as of 25 October 2019

- **Within the Eurozone**, dividend plays are appealing, given the near record-high gap between dividend and bond yields in the region. We seek stocks with high sustainable dividend potential.
- **In Switzerland**, there is a similarly wide gap between dividend and bond yields. The overall MSCI CH has an average yield of around 3%, versus zero or even negative for Swiss bonds. We look for defensive names that boast attractive valuations and dividend yields, as well as robust earnings growth relative to the wider market.



## 67%

of investors are looking to increase their holdings of high-quality dividend-paying equities, in response to low yields.

Source: UBS Investor Watch on the Year Ahead, "Decisions, decisions," 2 Volume 2019

- **In emerging markets**, we believe an attractive way to improve the quality of your equity portfolio is to invest in companies highly rated according to environmental, social, and governance criteria (“ESG leaders”). Emerging markets (EM) face some major challenges in the coming years, which will put stress on resources like water, food, and energy, and may result in increased environmental and social risks. Although regulation in EM is often less robust than in developed markets, we believe it will continue to tighten, and, consequently, EM companies with higher ESG standards may deliver more sustainable financial performance with lower downside risk. The MSCI EM ESG Leaders index has already outperformed the broader MSCI EM index on average by more than 3% annually (end-of-September 2007 – end-of-September 2019).

## Go domestic over global

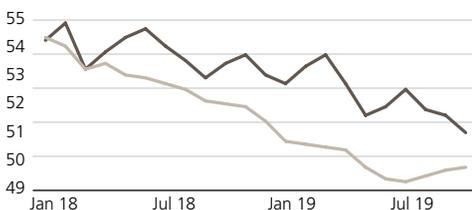
Companies exposed to global trade are likely to be dependent on a favorable political climate in the year ahead, and so could experience higher volatility. We prefer stock markets that rely more on domestic spending.

- **We prefer US stocks to Eurozone equities.** 69% of US company revenue is generated domestically compared with 47% for Eurozone firms, while 58% of US revenue is derived from the consumer compared with just 36% in the Eurozone. Within Europe, we recommend focusing on the more domestically-oriented financials and utilities sectors.
- **We like China within EM equities.** Chinese stocks may appear vulnerable to trade tensions with the US, but in fact the country’s listed companies generate only 2% of their sales in North America, and 86% domestically – making the market among the least exposed to trade within EM. Chinese authorities have also stimulated their economy in response to the trade dispute.

3.2

## Consumption has proven resilient

Global manufacturing and services PMIs



— Global Services PMI — Global Manufacturing PMI

Source: JPMorgan, UBS, as of 31 October 2019

## Choose consumer over business

Even in the event of an interim US-China trade deal, policy uncertainty will likely continue to weigh on business investment. We expect consumer-facing sectors to prove more resilient thanks to vibrant labor markets and healthy wage growth.

- **In the US**, we overweight the consumer discretionary sector, which should benefit

from relative strength in the US labor market. In particular, we are attracted to strong brands with pricing power and companies aligned to the needs of millennial consumers that should drive consumption trends for years to come.

- **In Europe**, we like European companies exposed to consumer-driven spending in emerging markets. We look for companies that have, on average, 40% EM exposure, which we believe should bode well for sales and earnings.

- **In Asia**, we focus on Chinese internet and 5G beneficiaries, which should gain from consumer adoption of 5G smartphones.

- **Our least preferred global sectors** include materials and information technology, both of which are more exposed to business than consumer spending.

Unsplash / Hugo Sousa



# Fixed income

Bond yields fell sharply in the past year, and the outstanding supply of negative-yielding debt now totals as much as USD 12trn. We doubt yields will move much lower, but also see little to suggest that the yield environment will improve. Low yields might tempt investors to turn to riskier instruments. But corporate credit fundamentals at some high yield companies are showing signs of deteriorating. We recommend choosing fixed income investments in “the middle lanes,” avoiding the safest and the riskiest issuers, and looking for sustainable alternatives.

## Choose the middle lanes

Limiting exposure to negative-yielding debt and increasingly risky high-yielding credit means fixed income investors should look to drive in the middle lanes.

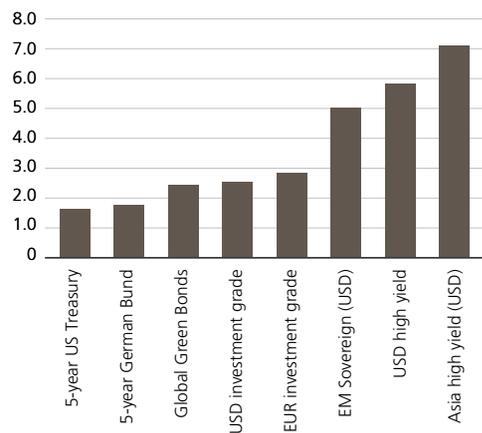
US dollar-denominated emerging market sovereign bonds offer a yield of 5% (EMBIGD index). It remains a well-diversified asset class with over 70 countries in the index, which helps investors limit exposure to idiosyncratic issues. Emerging market growth also remains structurally higher than developed markets – China alone will make up 6% of broad global bond indexes by the end of 2020, and EM 13%.

**Within US fixed income,** we favor senior loans over high yield bonds. They offer comparable carry to high yield, but with a secured

3.3

### Low, middle, or high

Select yields on bonds hedged to the US dollar, in %



Source: Bloomberg, UBS, as of 22 October 2019

structure. We expect the underperformance of floating rate assets during 2019 to fade in 2020, as the rush into fixed rate securities ebbs. We think defaults will be low and recovery rates on secured loans high.

**In Asia**, we look for good-quality names in the high yield space, and prefer BBB within investment grade. We favor investment grade bonds, which can provide enough spread cushion to withstand the volatility in rates, including Chinese government-related issuers and select corporate bonds issued by Indian privately-owned companies. China property remains our preferred sector in high yield.

**In Europe**, we look for select investments in the “crossover zone” between investment grade and high yield. The ECB is buying bonds, so corporate spreads should be relatively contained, and investors able and willing to stomach the potential volatility of “crossover credit” investments can earn potentially significant alpha if key rating agency action is anticipated correctly.

## Choose sustainable over traditional

Another way to improve the quality of your fixed income portfolio is to look for “sustainable” alternatives to traditional bonds.

- The green bond index (GREN) has achieved a similar total return to the ICE global corporate credit index since March 2014. Yet it has less exposure to cyclical sectors and a higher average credit quality than the broader investment grade market (low AA compared with low A), which should be useful against an uncertain market backdrop.
- Multilateral development bank bonds have steadily outperformed US Treasuries since January 2018, with a low volatility of excess returns.
- An alternative route into the high yield market is to seek environmental, social, and governance (ESG) engagement high yield bond funds. They provide exposure to bonds issued by companies that could benefit from specific identifiable ESG improvements. In these cases, the investment manager proactively lobbies and works with company management to drive progress.



# Currencies, commodities, alternatives, real estate

## Currencies

### Choose barbells over greenbacks

We expect the US dollar to weaken over the course of 2020. In recent years, high interest rates, risk aversion stemming from the downturn in global trade, and support from earnings repatriation have supported the USD. But over the coming year(s) US growth and interest rates will be closer to those elsewhere in the world, and uncertainty ahead of the US election and the waning effect of tariffs suggest a weaker greenback is likely.

The dollar's exclusive position in recent years as a relatively high-yielding currency with safe-haven characteristics will be hard to replicate. But we think it can be approximated through a barbell approach that combines relatively stable low yielders with promising high yielders. In an uncertain environment, we think the Japanese yen and the Swiss franc will benefit from safe-haven flows. Meanwhile, the "hunt for yield" is likely to benefit select emerging market currencies. In particular, those countries enjoying rising

GDP growth, investment, productivity, and fiscal stimulus are likely to find their currencies in demand. Currently, we like the Indian rupee and Indonesian rupiah.

## Commodities

### Go precious over cyclical

We see gold appreciating in 2020, albeit at a slower pace than in 2019, when it was up 18% in the year to October. Muted economic growth and now lower interest rates reduce the opportunity cost of holding gold, which does not offer a yield. Political uncertainty could send safe-haven flows into gold. And since gold is priced in USD, a weaker dollar would in turn push gold prices higher.

In contrast, ongoing economic concerns dampen the outlook for cyclical commodities. In the absence of a broader recovery in manufacturing and investment activity, the conditions are building toward market surpluses both in industrial metals and in oil.

Of course, sudden changes in the outlook are possible, and investors should remain vigilant. In oil, OPEC supply remains a wild card. Price declines to USD 55/bbl or lower could offer an opportunity to buy, while price setbacks in copper and aluminum could also offer a chance to go long. In precious metals, investors should bear in mind that insurance-like qualities do not come for free. If geopolitical tensions ease or the economy recovers more quickly than we expect, performance would likely suffer.

**Alternatives**

## Opting for lower beta

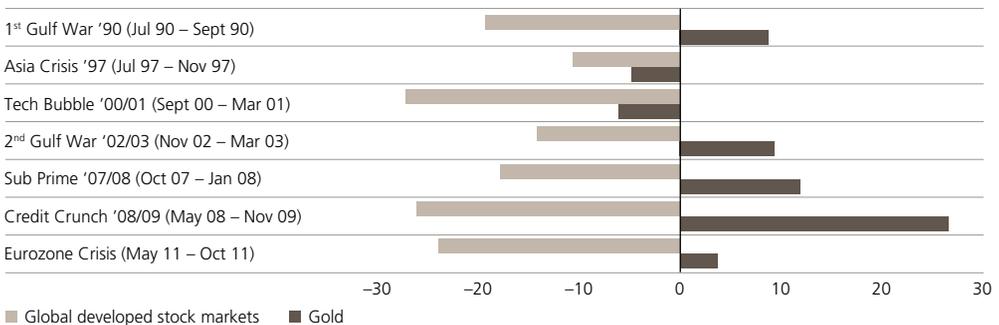
In a year with significant two-way uncertainty around our base case, we think investors should choose to pursue relative value and market neutral strategies for their hedge fund allocation. Both can still achieve returns in directionless or falling markets. We also think macro funds could outperform under such conditions. Since they can invest across a range of asset classes, they can capture carry or exploit shifts in economic policy.

In private markets, investors continue to seek an illiquidity premium, estimated by academic studies at 1–3ppts, in return for committing their funds for a longer period. However, purchase price multiples are rising and the use of debt is high, indicating that private markets may be entering a late-cycle period.

3.4

## Gold can outperform during times of crisis

Performance over select time periods, in %



Source: Bloomberg, UBS, as of 29 October 2019

Against this backdrop, we favor strategies that can deliver returns less dependent on the macro environment. We like managers with proven operational value creation capabilities and investments that reflect durable organic growth rates. In private debt markets, we prefer more conservative managers who can deploy capital in less-explored areas to maintain attractive risk-reward for investors.



## Building a legacy

Private market investments can play an important role in investors' Legacy strategies. Investors, who do not need immediate access to a portion of their overall wealth, can benefit from superior long-term returns due to illiquidity premiums, access to niche opportunities, and emphasis on driving operational value.

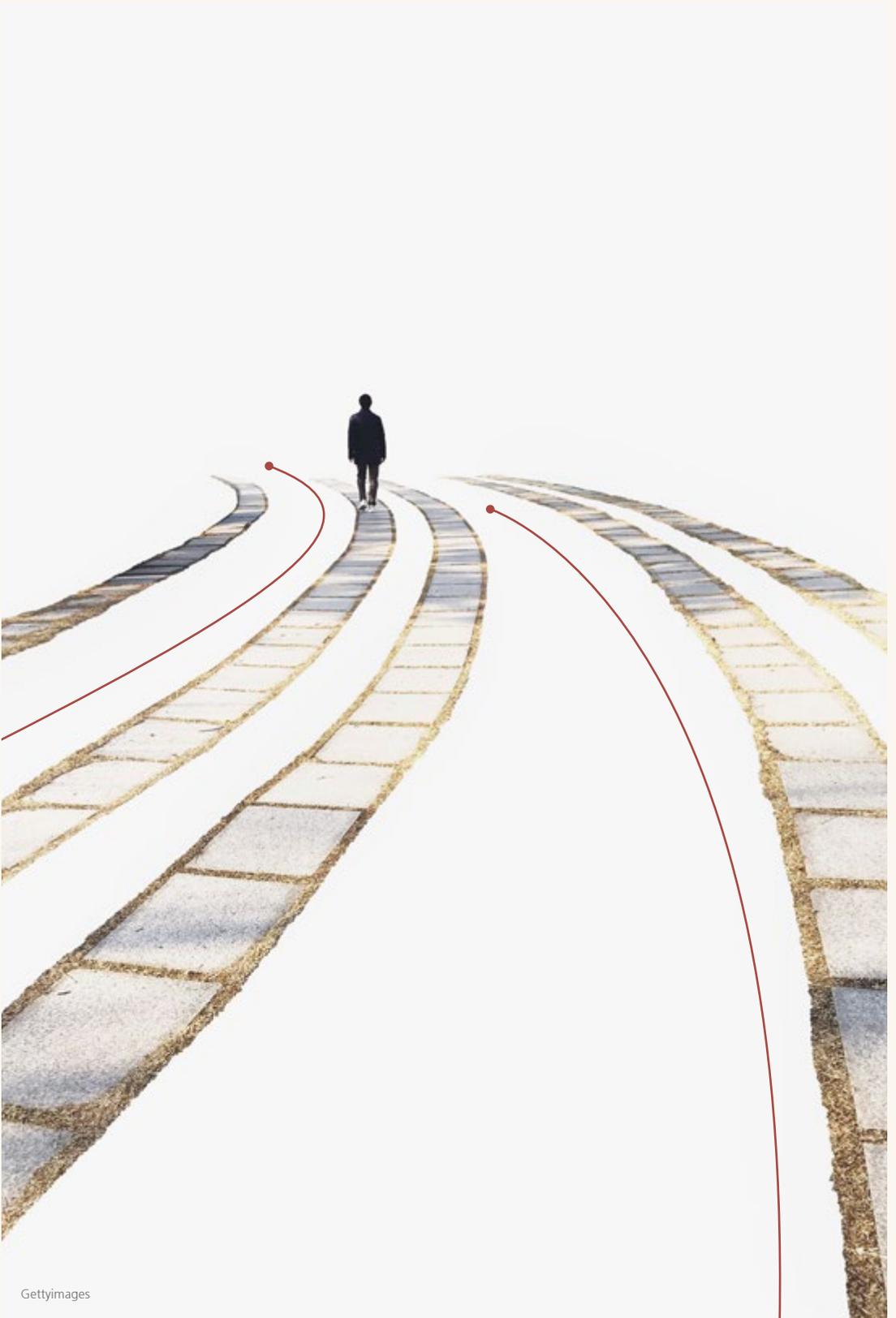
## Real estate

### Picking late-cycle winners

Prices of both residential and commercial real estate have been inflated by years of low borrowing costs, affecting the choices that investors should make in coming years.

Risks in the owner-occupied housing market are elevated in a range of major cities, with a heightened danger of price declines in Paris, Munich, and Vancouver. Regulatory interventions to improve affordability have become a growing issue. However, pockets of relative value remain, including in Chicago, Milan, and Dubai. Residential investors should therefore choose their locations carefully. A diversified property portfolio in such fairly valued or undervalued cities would improve the potential for an attractive risk-adjusted rate of return over coming years, in our view.

In commercial real estate, we advocate an active management strategy. Skilled managers can still unlock value, even in periods when overall returns are likely to be modest and transaction volumes are falling. Investors should choose investments based on long-term structural trends, such as the growth of e-commerce, urbanization, and aging societies. For example, urban logistics real estate, like small warehouses and distribution centers that facilitate the last stages of the delivery process, stands to benefit from the rise of e-commerce, while secondary retail assets are coming under pressure and should be avoided.



# The Decade of Transformation

The past decade generated excellent returns across financial assets, amid unprecedented monetary stimulus.

A Decade of Transformation now beckons. Working-age populations will begin to shrink in high-income countries. We expect the trend toward deglobalization to gain momentum, and foresee a less favorable political backdrop for high-income individuals. Major environmental and technological movements and advances are likely to disrupt existing norms. On the whole, we anticipate the coming decade will be a more challenging one for investors and business owners than the past one was.

Though such a transformation can be uncomfortable, it will bring opportunities with it too. Like globalization, deglobalization will also mean winners and losers. Demographic change will boost emerging markets and sectors like healthcare. The technological revolution will present myriad options for investment in areas such as 5G, artificial intelligence, cloud computing, and genetic therapies. Meanwhile, the shift in consumer preferences and government regulation toward

more sustainable products and services is only just beginning, and could prove to be the most exciting and durable growth opportunity of the next 10 years.

How to balance the risks with the opportunities in the decade ahead? We think a robust financial plan is an essential starting point. On page 45, we detail our Liquidity. Longevity. Legacy. framework, which can help you align your portfolio with your financial goals while helping to steer you clear of common investing pitfalls. It enables you to target longer-term trends (see page 49) with the confidence that your near-term needs have been addressed.

Finally, for entrepreneurs, we detail how the remaking of the world taking place might affect your company, and reveal what entrepreneurs within our UBS Industry Leader Network\* are doing to prepare their own firms for a Decade of Transformation.

\* The UBS Industry Leader Network is a global group of UBS clients and prospects who are private business owners and executives. Their views may differ from those of UBS.

Liquidity. Longevity. Legacy. disclaimer:

Timeframes may vary. Strategies are subject to individual client goals, objectives, and suitability. This approach is not a promise or guarantee that wealth, or any financial results, can or will be achieved.

# The world in 2030

People moving to cities



790 million

Source: United Nations Population Division

Change in more developed market workers



-25 million

Source: United Nations Population Division

Change in less developed market workers

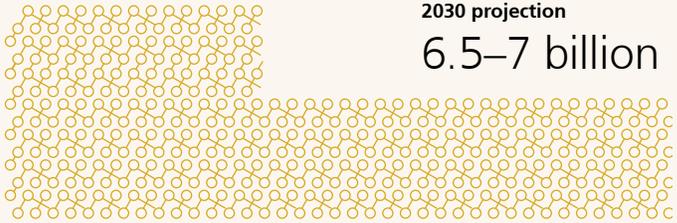


+470 million

Source: United Nations Population Division

5G connections

2019  
5 million



2030 projection  
6.5–7 billion

Source: GSMA, World Bank, UBS estimates

Internet of Things devices

2019  
10 billion

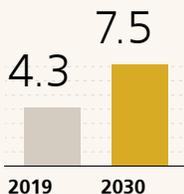


2030  
46 billion



Source: Ericsson

Internet users in billion people



Source: Cybersecurity Ventures

More megacities

Cities with a population over 10 million



Source: United Nations

Shifts from  
2020

Aging



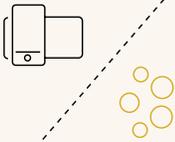
Retiring

Peak globalization



Deglobalization

Smartphone



Smart everything

Wealth concentration



Wealth redistribution

Quantitative Easing



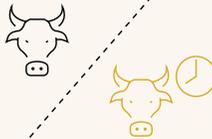
"Monetary Policy 3"

Environmental concerns



Environmental action

Raging bull



Aging bull

US equities



EM equities

Lower for longer



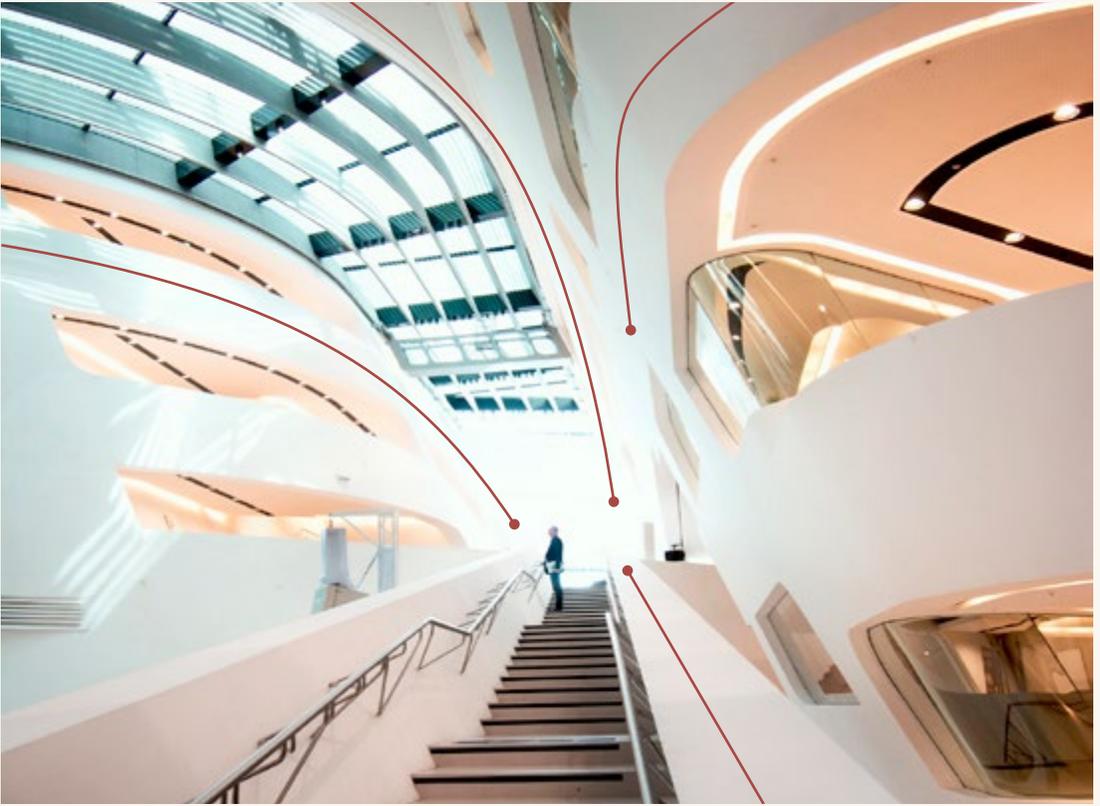
Lower forever

Stronger dollar



Weaker dollar

to  
2030



Unsplash / Julia Solonina

# Six key transformations

In a Decade of Transformation, we identify six key trends that we think will play the biggest role in shaping outcomes for investors over the coming 10 years: deglobalization, technological disruption, wealth redistribution, “monetary policy 3,” demographic change, and environmental action.



**87%**

Surveyed investors identified an aging population (87%), smart technology (86%), increased automation (85%), artificial intelligence (85%), and diminishing natural resources (82%) as the key “mega trends” likely to change the world in the decade ahead.

Source: UBS Investor Watch on the Year Ahead, “Decisions, decisions,” 2 Volume 2019

4.1

**1. Deglobalization.** After accelerating through the 1990s and 2000s, globalization peaked in the 2010s. Its recent falloff has been a product, in part, of trends such as digitalization and localized manufacturing (see *Technological disruption*). Policymakers could choose to slow the pace of deglobalization in 2020, but we ultimately expect the US-China rivalry to contribute to a less unified world in the 2020s. Overall economic growth will decline if economic nationalism, tariffs, currency intervention, subsidies, and capital flow restrictions become more prevalent. Meanwhile, the formation of an East-West “Silicon Curtain” could result in incompatible standards, forcing regions such as Europe, which currently benefits from relatively free trade with both China and the US, to “choose” sides. As was the case with globalization itself, relative winners and losers will emerge. Realignment of supply chains should increase infrastructure spending in some emerging markets (see page 19). Investment in technology may also climb. Companies and countries that rely more on domestic spending should fare relatively better.

### Global trade-to-GDP has peaked



Source: The World Bank, UBS, as of 31 December 2017

**2. Technological disruption.** The fourth industrial revolution will lead supply chains to localize. Complex tasks like driving will become automated, and the confluence of 5G, big data, and artificial intelligence will give rise to “smart everything.” Moonshot developments like quantum computing, though hard to predict, could redefine the

### Europe may be caught between the US and China

Tech companies based in the US and in China



Source: UBS, as of 18 November 2019

boundaries of what is considered possible. More accessible gene-editing advances might even cause us to question what it is to be human. The upside is higher long-term growth, aggregate improvements in living standards, and large gains for investors in fast-growing industries (see page 49). The dangers include disruption to existing business models, problems caused by a potential fracturing in global technological standards (see *Deglobalization*), and the social and political consequences of technological unemployment. McKinsey estimates that up to 800 million jobs could be lost worldwide by the end of the decade as a result of technological progress. While such forecasts are imprecise, this trend has already built political momentum for policies such as universal basic incomes, and could yet have further political consequences (see *Wealth redistribution*).

**3. Wealth redistribution.** Worldwide, the share of economic output going to labor is close to a multi-decade low. In the US, the percentage of wealth owned by the top 0.1%

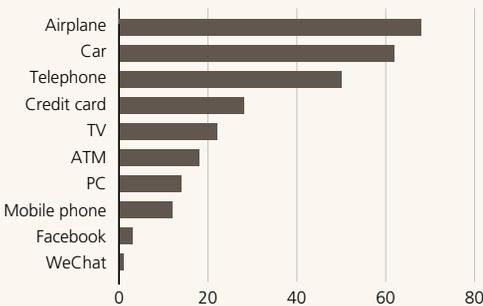
has approached that held by the bottom 90% for the first time since the 1930s. Causes include lower corporate tax rates, automation, increasingly global supply chains, and the rise of capital-light superstar firms. In the decade ahead, we expect wealth concentration to transform into wealth redistribution. Left-leaning parties in countries like the US and the UK are proposing increasingly radical prescriptions for addressing income and wealth inequality. Although voters in the months to come will provide an indication of whether wealth concentration has yet hit its political limits, investors should prepare for some combination of higher taxation, greater regulation, and antitrust measures over the next decade. Meanwhile, policies such as higher minimum wages and social security outlays (potentially funded by a *Monetary Policy 3*) could support companies exposed to consumer spending.

**4. “Monetary Policy 3.”** The role of monetary policy expanded in the 2010s. It stepped beyond the traditional bounds of interest rate

4.2

### A faster pace of technological change

Number of years required to reach 50m users

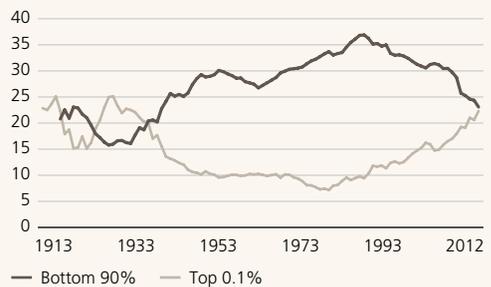


Source: UBS, as of 22 October 2019

4.3

### Wealth inequality has risen

US net wealth shares held by bottom 90% vs. the top 0.1%, in %



Source: The World Wealth and Income Database, as of 1 October 2019

4.4

### Federal debt is at historically high levels

Gross federal debt held by the public as a % of GDP

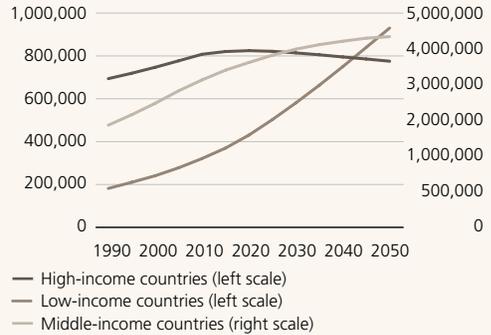


Source: Bloomberg, UBS, as of 30 April 2019

4.5

### The working-age population will peak in high-income countries

Size of population in ages 15–64, in thousands



Source: United Nations, Department of Economic and Social Affairs, as of 11 November 2019

setting toward “unconventional” asset purchase programs. As policymakers consider the right course of action to pursue to manage their economies and support their aging populations (see *Demographic change*), we expect to see a transition toward what Bridgewater Associates’ Ray Dalio has termed “Monetary Policy 3” (MP3). Here fiscal policy would assume a greater role in stimulating economies, in conjunction with monetary policy. In the most extreme form of MP3, central banks would hand over printed banknotes directly to consumers and governments. Such policy could result in higher consumption, government spending, and economic growth, or end in inflationary catastrophe. Outcomes could also be expected to vary by region.

**5. Demographic change.** More people, both in high and in upper-middle income countries, will retire in the next decade than will enter the workforce: working-age populations will peak in 2020 and 2025, respectively. This will



47%

Regarding extreme risk scenarios, 47% of investors believe that a “natural disaster via climate change” is very or extremely likely to occur over the next decade, more so than any other scenario.

Source: UBS Investor Watch on the Year Ahead, “Decisions, decisions,” 2 Volume 2019

mean lower rates of GDP expansion. It will also provoke questions about government funding (see “Monetary Policy 3”). At the same time, rapid population growth will continue in many emerging markets. Overall, it should stoke economies in these regions, as well as increase demand for things like water infrastructure. That said, countries experiencing a “demographic dividend,” such as India, must also create a sufficient number of jobs

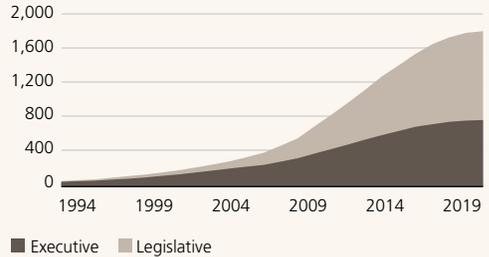
to mitigate the risk of social unrest or worsening global migration challenges. Meanwhile, we expect demographic shifts to promote consumer preferences for sustainable products (see *Environmental action*). In the next decade, the millennial generation – which polls indicate is more concerned about sustainability than prior generations – will become the biggest earning cohort world-wide.

**6. Environmental action.** Over the past decade, rising temperatures, extreme weather events, and concerns about air quality contributed to a sense of environmental crisis. In the decade ahead we believe this sense of crisis is likely to spur action. We expect consumer preferences to shift toward more sustainable products. Green parties could earn a higher share of the vote and influence government policy choices. And technological advances are helping clean energy to become competitive with fossil fuels. All this makes us confident that greater adoption of sustainable products and services is likely in the decade ahead, and investors should position for this trend. But we are far from certain that even a real commitment to sustainability will avert further environmental problems. So investors will need to carefully consider environmental risks in their decision-making. Such considerations are particularly relevant when investing in long-term physical assets like real estate, utilities, and infrastructure.

4.6

### Climate change regulation is increasing

Sum of global executive and legislative actions

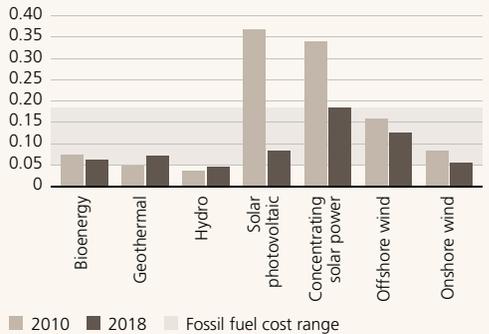


Source: Climate Change Laws of the World database, Grantham Research Institute on Climate Change and the Environment and Sabin Center for Climate Change Law, as of 18 October 2019

4.7

### The cost of producing select renewables has dropped

Global levelized cost of energy (LCOE), in USD/kWh



Source: IRENA, UBS, as of 31 May 2019

# Our return assumptions

Overall, we expect the Decade of Transformation to generate lower returns and spur higher volatility for most financial assets than in the past decade. Investors targeting a given level of return in well-diversified portfolios may need to increase their allocation to riskier assets such as equities, and reduce their allocation to assets like bonds. Equally, investors targeting a given level of risk may need to accept lower, or even negative, returns as a necessary price of that safety.

 **69%**  
of investors are optimistic about investment returns over the next decade. Optimism is highest in Latin America (83%) and lowest in Switzerland (56%).

Source: UBS Investor Watch on the Year Ahead, "Decisions, decisions," 2 Volume 2019

 **39%**  
Stocks are viewed as the asset class that will perform best over the next decade (39%). Optimism about them is highest in the US (57%) and lowest in Switzerland (10%).

Source: UBS Investor Watch on the Year Ahead, "Decisions, decisions," 2 Volume 2019

## Cash

We expect short-term interest rates to remain low relative to historical norms, albeit somewhat higher than the average of the past decade and levels prevailing today. Low unemployment, shrinking workforces in wealthy nations, and the effects of deglobalization could push wages higher, but the effects of technological progress and well-anchored consumer price expectations should keep inflation low overall and close to central bank targets. Meanwhile, an ongoing surplus in global savings and an increasingly capital-light economy are likely to translate into real money market rates that we expect to converge to only around 0.5% in the US and below zero in Europe. Our estimates for cash rates are lower than those we made a year ago, given the earlier-than-anticipated end to the Fed's recent rate hiking cycle and the looser-than-expected monetary policy stance of major central banks.

## Bonds

Our estimates for bond returns stem from our view that interest rates will remain broadly low. Overall we forecast nominal returns of about 2.5% a year in USD high grade bonds, and slightly negative returns in EUR and CHF bonds, far below the average returns of the past decade. Within USD high yield credit, we see default rates averaging 3.5% annually, close to the long-run norm, producing total nominal returns of 4.7% a year. Emerging market sovereign bonds in USD have a slightly higher than expected total return of 4.9% a year. Our reduced return estimates for bonds are largely a product of the overall decline in yields through 2019.

## Equities

Returns are most likely to be much lower than in the last decade – we expect 4%–6% nominal returns per year in developed markets in local currency terms. Although valuations are generally below long-term averages (with the exception of the US and Switzerland), the effects of modest global economic growth and contracting profit margins are likely to weigh on returns. In particular, aging populations will contribute both to slower growth and to greater competition for labor, while deglobalization and potentially higher corporate taxes could also pressure profits.

Nonetheless, equities should still return more than most other asset classes. Our estimates are similar to those made a year ago.

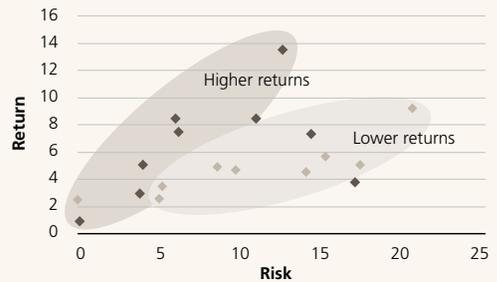
Within equities, we expect emerging markets to reverse their underperformance of the past 10 years and outpace their developed-market counterparts. We estimate

roughly 9% annual returns in USD terms thanks to better potential for long-term profit growth. EM volatility is likely to remain high, however, so investors should prepare for periods of underperformance.

4.8

## To achieve the same return you will need to take more risk

Select asset classes, risk and return, in %



- ◆ Past 10 years
- ◆ Next 7 years

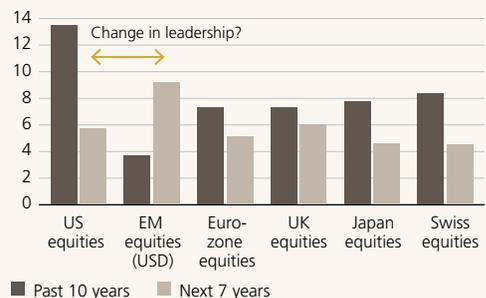
Note: Asset classes include USD cash, USD high grade bonds, USD high yield, EM sovereign bonds, US equities, EM equities (USD), Eurozone equities, Swiss equities, Hedge funds (USD)

Source: Bloomberg, UBS, as of 21 October 2019

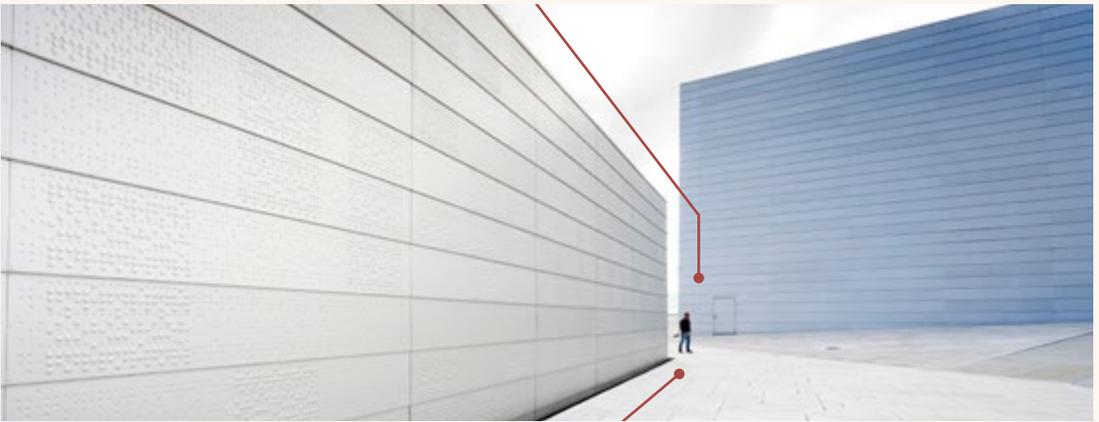
4.9

## Lower returns in equities, with different leadership

Select equity returns in local currency terms, in %



Source: Bloomberg, UBS, as of 21 October 2019



Plainpicture / NTB, scanpix, Nordrum, Svein

### Commodities

We estimate a 5.2% annualized nominal return for broadly diversified commodity indexes in USD terms. Around half of this return stems from returns on cash held as collateral against commodity futures positions. The rest comes from the long-term equilibrium level of commodity prices being higher, in our view, than current levels. The asset class's volatility suggests to us that investors should consider broad commodity exposure as a tactical, rather than a strategic, investment.

### Alternatives

Funds of hedge funds are expected to deliver 3.5% annual returns to investors, according to our estimates. This forecast is somewhat lower than in the past, reflecting the effect of lower rates on cash and fixed income on hedge funds. We expect risk parity funds to return around 7% a year. Although the fall in bond yields hurts such funds' prospects, the commensurate drop in interest rate expectations also leads to lower borrowing costs. It is also worth noting that the difference between expected equity returns and borrowing costs has risen over the past year. In private markets, we anticipate returns of 8%–10%,

higher than in public markets due to the effects of illiquidity premiums, manager skill, and greater access to niche opportunities.

### Currencies

Generally, we advise investors to hedge foreign currency exposure to reduce portfolio volatility. But we believe the Japanese yen and the British pound will deliver attractive returns over the next decade. So international investors should consider holding some Japanese and UK assets unhedged. We expect the US dollar to depreciate relative to the euro, but we anticipate this will be offset by higher interest rates in US dollars. Consequently, for international investors, hedging US dollar exposure helps reduce risk but is unlikely to markedly affect returns. Other currencies are broadly fairly valued in our view.



### A balanced Longevity strategy

In spite of the lower returns likely in the decade ahead, we believe a well-diversified, balanced portfolio of equities, fixed income, and alternative assets should form a core part of investors' Longevity strategy.

Liquidity. Longevity. Legacy. disclaimer:

Timeframes may vary. Strategies are subject to individual client goals, objectives, and suitability. This approach is not a promise or guarantee that wealth, or any financial results, can or will be achieved.

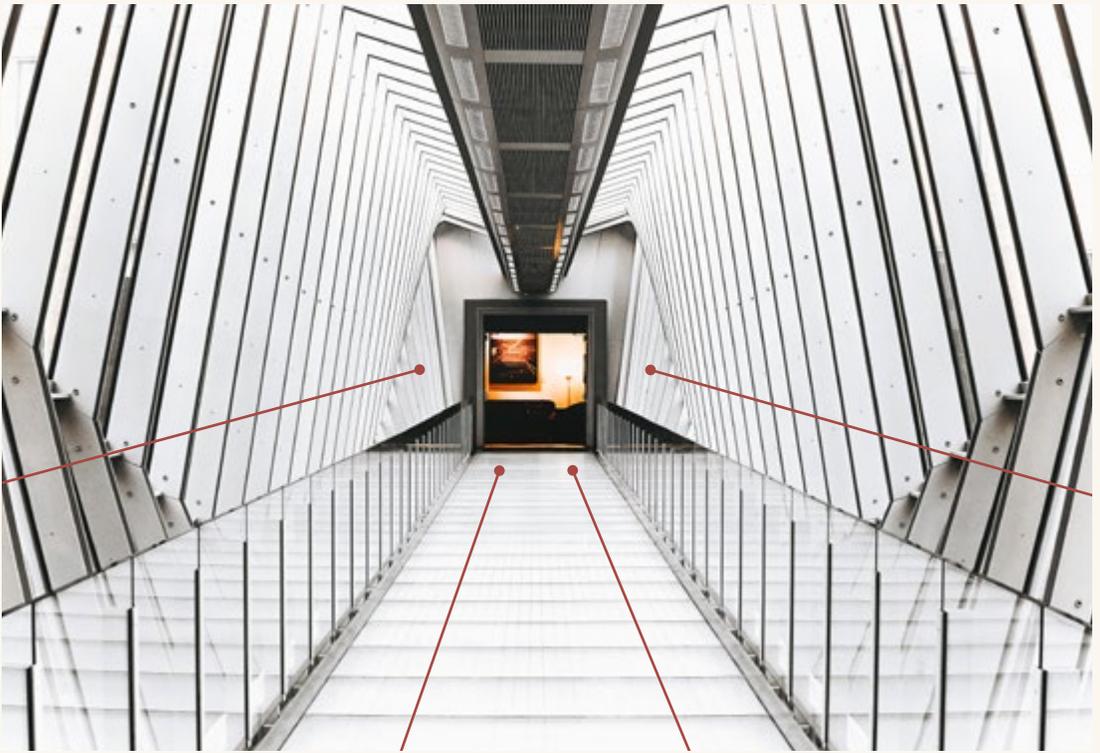
# Our capital market assumptions

Forecasts in local currency (except EM equities), annualized

	Forecasts for the next 7y		Average over the past 10y	
	Return p.a.	Volatility p.a.	Return	Volatility p.a.
<b>Liquidity</b>				
Cash USD / EUR / CHF / GBP	2.5% / 0.3% / -0.1% / 1.2%	0.0%	0.8% / 0.1% / -0.4% / 0.6%	0.2% / 0.2% / 0.1% / 0.0%
<b>Bonds</b>				
USD / GBP high grade bonds 5–10 years	2.6% / 0.7%	5.0% / 4.7%	5.0% / 4.7%	4.1% / 4.4%
EUR / CHF high grade bonds 5–10 years	-0.2% / -0.3%	4.2% / 3.8%	4.4% / 3.5%	3.9% / 2.8%
USD inflation linked bonds	2.4%	4.7%	3.0%	3.3%
USD corporate intermediate bonds (IG)	3.3%	4.4%	4.8%	2.9%
USD / EUR high yield bonds	4.7% / 2.3%	9.7% / 8.7%	8.4% / 8.7%	6.1% / 7.3%
USD / EUR senior loans	5.7% / 3.5%	6.9% / 6.3%	5.5% / 6.0%	3.5% / 3.1%
Emerging market sovereign bonds (USD)	4.9%	8.6%	7.4%	6.3%
<b>Equities</b>				
US	5.7%	15.2%	13.5%	12.7%
Emerging Markets (USD)	9.2%	20.7%	3.7%	17.0%
Eurozone	5.1%	17.3%	7.3%	14.4%
UK	6.0%	16.3%	7.3%	11.5%
Japan	4.6%	19.3%	7.8%	17.2%
Switzerland	4.5%	14.0%	8.4%	11.0%
<b>Commodities</b>	5.2%	17.2%	-1.9%	13.9%
<b>Alternatives – Hedge Funds (FoF; USD)</b>	3.5%	5.2%	2.9%	3.9%
<b>Alternatives – Other / Risk Parity (USD)</b>	7.2%	10.0%	7.8%	7.2%
<b>Alternatives – Private Markets – Private real estate (USD)*</b>	7.9%	9.2%	9.4%	5.1%
<b>Alternatives – Private Markets – Private equity (USD)*</b>	10.2%	14.5%	13.9%	8.1%
<b>Alternatives – Private Markets – Private debt (USD)*</b>	8.2%	4.5%	10.2%	4.7%

\* equilibrium returns

Source: Bloomberg, JPMorgan, MSCI, HFRI, BAML, UBS as of 18 October 2019



Unsplash / Matthew Hamilton

# Planning for the decade ahead

To balance the risks of a Decade of Transformation with potential long-term opportunity, investors will have to build a robust financial plan. They must think carefully about how much to devote to short-term needs, while setting aside a sufficient amount to

invest for the long term. We believe the Liquidity. Longevity. Legacy. approach can help investors achieve their financial objectives, reduce their anxiety about short-term risks, and enable them to take advantage of longer-term opportunities.

Liquidity. Longevity. Legacy. disclaimer:

Timeframes may vary. Strategies are subject to individual client goals, objectives, and suitability. This approach is not a promise or guarantee that wealth, or any financial results, can or will be achieved.



65%

of investors with a long-term plan feel “highly confident” about achieving their long-term objectives, versus 51% who do not have a long-term plan.

Source: UBS Investor Watch on the Year Ahead, “Decisions, decisions,” 2 Volume 2019

The Liquidity. Longevity. Legacy. framework allocates your wealth into three strategies:

- The **Liquidity** strategy is designed to cover your needs for the near term. In general, we recommend maintaining up to a year’s worth of spending in this strategy during your working years as a buffer to cover “emergency spending.” For investors approaching retirement or in retirement, we recommend setting aside three to five years of cash flow needs from your portfolio, in order to navigate market volatility while reducing the risk of needing to sell investments at a loss to fund living expenses. A Liquidity strategy might be held in cash or invested in short-term bonds or a bond ladder, supplemented by borrowing capacity.
- The **Longevity** strategy is designed to meet your needs for the rest of your lifetime. The longer time horizon makes it important to focus on growth, but the potential need to replenish your Liquidity strategy also means you should include measures to limit volatility. We think a balanced portfolio is usually the best way to mix growth and downside protection in your Longevity strategy. For a

5.1

## The Liquidity. Longevity. Legacy. framework



Source: UBS, as of 18 November 2019

30-year retirement period, investors may be able to finance their retirement with 20–30x years of net cash flow needs saved. For 40–50 year retirements, 30–35x might be needed, though specific amounts will depend on the risk profile of the Longevity strategy and whether assets have a flexible spending policy.

- The **Legacy** strategy contains assets in excess of what you need to meet your own lifetime spending objectives in the Liquidity or Longevity strategies. Given the longer time horizon associated with these assets, the Legacy strategy can be invested with a

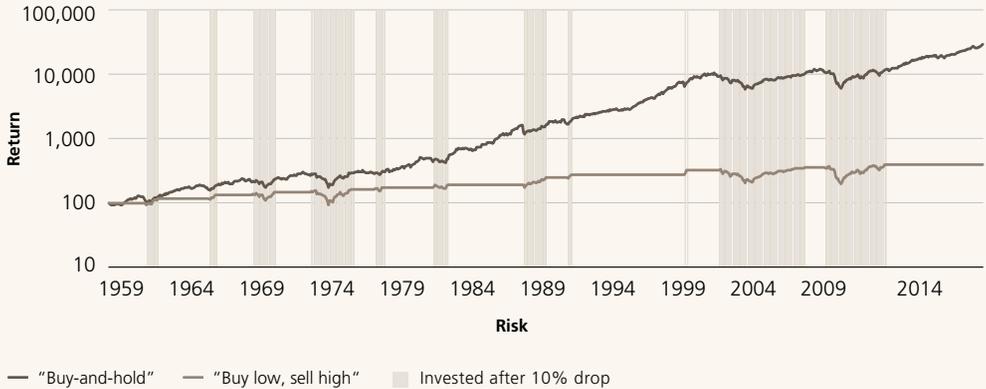
Liquidity. Longevity. Legacy. disclaimer:

Timeframes may vary. Strategies are subject to individual client goals, objectives, and suitability. This approach is not a promise or guarantee that wealth, or any financial results, can or will be achieved.

5.2

## Timing the market can be extremely costly

A “buy-and-hold” strategy vs. a “buy low, sell high” strategy



Note: Shaded areas indicate when the “buy low, sell high” strategy would have been invested. The “buy low, sell high” strategy follows a simple rule: buy stocks after a 10% drawdown, sell when stocks hit another all-time high.

Source: Ibbotson, UBS, as of 30 September 2019

different view of risk, and allocated for a unique objective: to maximize wealth. In this strategy, we generally recommend a large equity allocation, including exposure to secular trends (see page 49), as well as private equity and other illiquid investments.



51%

of investors think they can effectively time the market.

Source: UBS Investor Watch on the Year Ahead, “Decisions, decisions,” 2 Volume 2019

## Avoiding pitfalls

**Staying invested.** The Liquidity. Longevity. Legacy. framework provides investors with greater certainty that their short-term needs have been addressed, reducing the incentive to try to time the market. This is particularly important in an uncertain, politicized environ-

ment. Although we expect returns to be more muted in the next decade than during the last, we continue to believe that being invested will remain key to protecting purchasing power. Our capital market assumptions imply an S&P 500 at roughly 4,450 by the end of 2029.

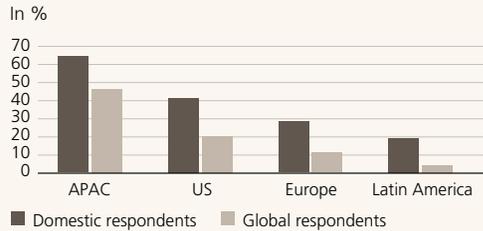
Liquidity. Longevity. Legacy. disclaimer:

Timeframes may vary. Strategies are subject to individual client goals, objectives, and suitability. This approach is not a promise or guarantee that wealth, or any financial results, can or will be achieved.

**Global diversification.** The best protection against the risks of a Decade of Transformation will be diversification. Deglobalization, technological disruption, tax policy changes, monetary policy mistakes, an aging population, and climate change will all be felt more keenly in individual countries than at a global level. To mitigate these risks, investors will need to diversify portfolios in assets around the world, and overcome sometimes deeply rooted preferences for investing close to home.

5.3

### Investors may overestimate their own regions' prospects



Source: UBS Investor Watch on the Year Ahead, "Decisions, decisions," 2 Volume 2019

## Borrowing as part of your financial plan

We expect cash rates to average zero in euros and Swiss francs and 2–3% in US dollars over the coming years, helping to keep borrowing costs low. Risk premiums on stocks are likely to remain at or slightly above long-term averages. Economic policy, in our view, will also remain broadly friendly to debtors, particularly if an era of greater monetary and fiscal coordination ensues (see *Monetary Policy 3* on page 38). This backdrop suggests that investors should consider opportunities on both sides of their balance sheet.

There are several circumstances in which borrowing can be beneficial in the context of a broader financial plan:

- **To increase leverage and boost portfolio returns.** While leverage does amplify portfolio risk, and could trigger forced selling if managed imprudently, low borrowing costs mean that a well-managed leveraged portfolio may offer enhanced returns over the course of the next decade. Entrepreneurs may also benefit from borrowing against their port-

folios to inject funds back into their private businesses.

- **To avert the need to sell assets that offer high upside.** A need for cash can arise for many reasons, including to pay tax bills, to take advantage of business opportunities, or to purchase property or a luxury item. However, meeting such needs by selling part or all of an investment portfolio imposes a significant opportunity cost. Though returns over the coming years are likely to be lower than in the past, we expect long-term returns of 4%–6% annually in local currencies for stocks and 8%–10% for private markets.

- **To increase diversification.** The wealth of entrepreneurs and top executives can become highly concentrated in a single asset or stock. Such concentration could represent a risk in a potentially transformative decade ahead. Borrowing could help fund a diversified portfolio, with investments less correlated to the bulk of your net worth.

# Top longer-term investments

Investors can profit in the Decade of Transformation if they can identify and invest in secular winners in the context of a robust financial plan. We zero in on market segments where we see the greatest potential, in the key areas of digital transformation, genetic therapies, and water scarcity.



## 55%

of investors expect the technology sector to be the top performer over the next decade, followed by health-care (35%) and energy (31%).

Source: UBS Investor Watch on the Year Ahead, "Decisions, decisions," 2 Volume 2019



## Integrating the long and short term

Longer-term investments, such as these, can be volatile in the short term. But they can play a key role in driving long-term growth within investors' Longevity or Legacy strategies (see page 45).

## Digital transformation

The digital revolution will remake numerous business models. Tech disruptors and incumbent players alike will use newly developed hard- and software to transform the world around us. Enabling technologies such as 5G,

artificial intelligence (AI), and cloud computing will combine with the continued exponential growth in data to power this new era. 5G, set to be rolled out in 2020, will fuel significant innovation over the next decade via faster speeds (20x 4G), greater capacity (10x 4G), and more flexibility. The ability of this technology to transmit large amounts of data wirelessly will open doors for a vast array of new applications, ranging from autonomous driving to remote surgery.

To benefit from the upcoming wave of digital transformation, we advise diversified investing focused on six key themes:

**Digital data.** Data is the key input that will drive the digital transformation in the decade ahead. We expect select companies involved in storing, transferring, processing, and analyzing data to prosper.

**Enabling technologies.** With businesses around the world turning to 5G, AI, and cloud computing, the companies that provide these services and develop technologies related to them are likely, in our view, to enjoy increasing

Liquidity. Longevity. Legacy. disclaimer:

Timeframes may vary. Strategies are subject to individual client goals, objectives, and suitability. This approach is not a promise or guarantee that wealth, or any financial results, can or will be achieved.

## Strong growth ahead for enabling technologies

Figures in USD bn

	2017	2025
AR/VR	8	107
Cloud	260	520
AI	7.2	43
5G	2	150
Big Data	143	285
<b>Total</b>	<b>420</b>	<b>1105</b>

Source: IDC, Gartner, Bloomberg Intelligence, Goldman Sachs, UBS, as of 21 May 2018

demand in the decade ahead. For example, Asia, propelled by key markets China and South Korea, will account for more than 50% of global 5G capital expenditure and almost 75% of global 5G smartphone shipments in 2020, according to our estimates. The region’s hardware and semiconductor supply chains should get a 5G boost as soon as next year.

**E-commerce.** The e-commerce industry, by our estimates, is set to average 15%–20% annual growth in the decade ahead. This advance will be fueled by AI and other technologies like augmented and virtual reality. Greater personalization and more efficient delivery systems will result, along with enhanced user experiences such as simulation and visualization.

**Fintech.** The financial sector’s push into digital services is centered on cloud computing and AI. Growth in the decade ahead in areas like mobile payments, insurtech, and online credit could well be rapid.

**Healthtech.** Healthcare will become increasingly digitized. New applications like population health software, tele-medicine, and

AI-assisted diagnostic imaging will help target and deliver care, improve diagnostic effectiveness, and transform the healthcare industry.

**Security and safety.** Growth in connectivity and data will also contribute to greater privacy concerns among consumers. Businesses will also likely become more apprehensive about protecting their intellectual property. We expect these trends to boost investment in companies providing cybersecurity and safety solutions.

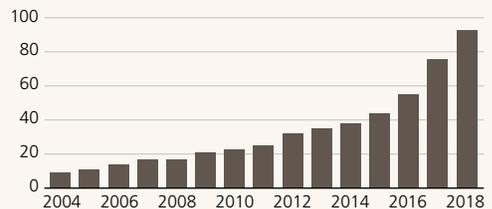
## Genetic therapies

Genetic therapies represent a paradigm shift in medicine. They harbor the potential to revolutionize healthcare delivery and disrupt the biopharma industry. Such therapies – including replacing and editing genes or entire cells – hold out the promise of curing chronic diseases with a single treatment, improving outcomes while reducing or even eliminating out-patient costs.

6.1

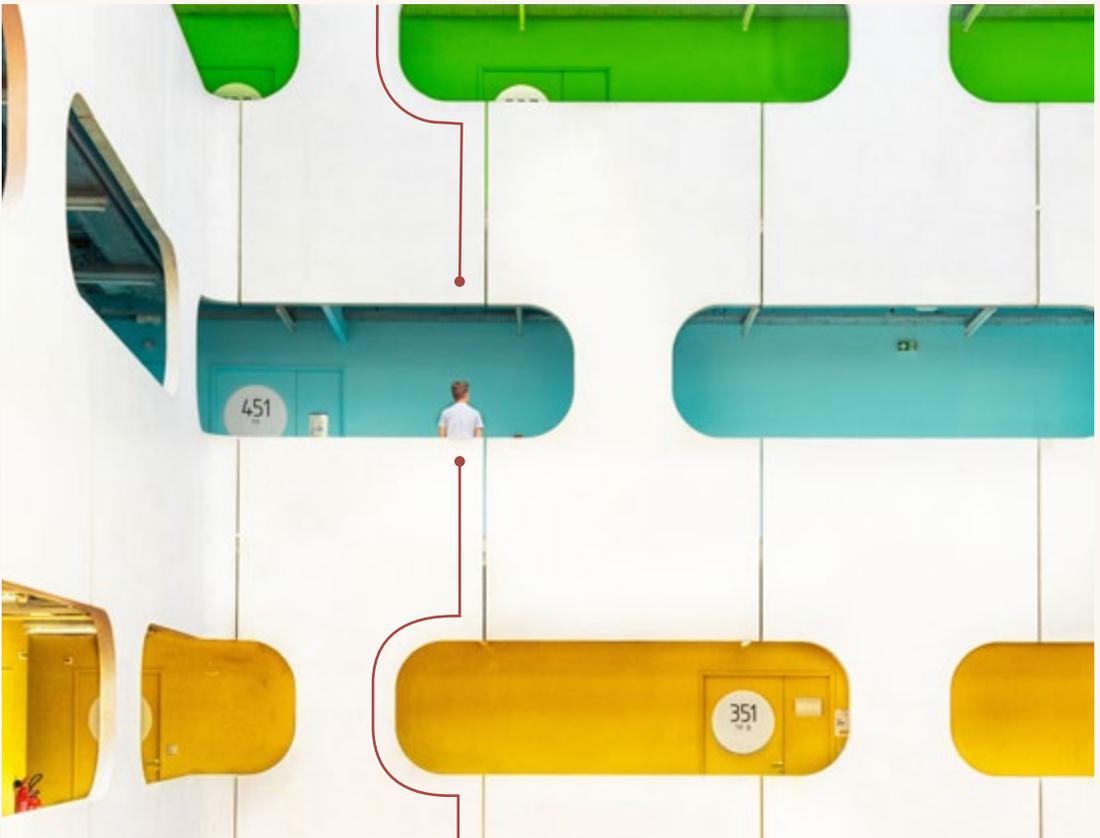
### The number of gene-therapy products in development is growing

Active trials for gene therapy products



Note: Trials for gene-therapy products using adeno-associated virus (AAV) vectors, the most common type of vector used for in vivo gene therapy.

Source: Bernstein Research, clinicaltrials.gov, as of 31 October 2018



Unsplash / Ole Witt

Much remains to be proven, and there have been false starts before. The latest generation of therapies, however, has demonstrated remarkable efficacy in treating certain rare diseases in selected patient groups. Four such products have been launched in the US market, with collective sales annualizing at over USD 1bn. New technologies like CRISPR have even brought gene-editing therapies to the clinic for the first time.

Genetic therapies align well with the UN Sustainable Development Goal 3 “Good Health and Well-Being;” in a positive scenario, they could go some way toward eliminating some incurable diseases. A key sustainability risk is ineffective regulation of potentially sensitive gene-editing technology, so we focus on companies with stringent management of their research process.



**50%**

of investors say “health technology” is one of the long-term themes they most want to invest in, a larger percentage than for any other theme.

Source: UBS Investor Watch on the Year Ahead, “Decisions, decisions,” 2 Volume 2019

If, in the decade ahead, genetic therapies can take the next step toward treating common illnesses at a manageable cost, they would profoundly disrupt the biopharma industry. Pharma and biotech companies, we believe, will begin to take such therapies increasingly seriously. We expect more acquisitions of the firms that develop them, and see the potential for marked capital appreciation of the theme if clinical trials and commercial rollouts meet our expectations.

Of course, as ever in drug development, idiosyncratic risk is high. So we recommend investing through a diversified portfolio of firms pioneering genetic therapies to manage the risks associated with clinical failure.

## Water scarcity

 **72%**  
of investors listed “clean water and sanitation” as the most pressing issue facing the world.

Source: UBS Investor Watch on the Year Ahead, “Decisions, decisions,” 2 Volume 2019

The world faces a mismatch between water demand and supply, and the effects of population growth could widen this gap in the decade ahead. China and India represent 35% of the world’s population yet have access to less than 10% of its freshwater resources.

Owing to the urgency and scale of water-related issues, and the vibrant capital spending in emerging markets, we see continuous revenue and profit growth as a likely prospect for the entire water value chain, including companies involved in water exploration, distribution, and treatment. In our view, water utilities and industrials both should benefit from rising water demand, the former through greater investment and higher water tariffs and the latter through increased equipment sales.

Investors can also potentially benefit from new environmental legislation targeted at reducing ocean pollution. The International Maritime Organization is introducing new regulations to reduce the environmental impact of ballast water. Used to improve the stability of large ships, ballast water, after its discharge on arrival, can introduce damaging, non-native species into aquatic ecosystems. We estimate that 50,000–70,000 ships worldwide still need to be fitted with water treatment systems by 2024, at an average cost of EUR 500,000 per ship. As a result, we expect ballast water treatment to be the fastest-growing part of the overall water market, with annual growth rates in excess of 10% forecast.

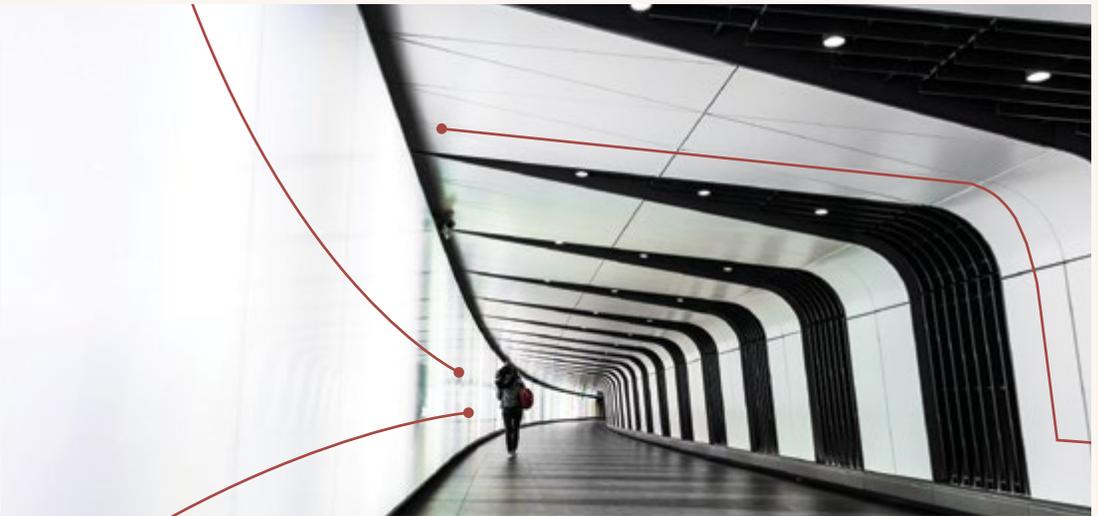
6.2

## Water imbalances

In the 16 most populous countries, in %



Source: The Factbook (CIA), UBS, as of 1 April 2019



Gettyimages

# Effecting change

A Decade of Transformation will require investors to adapt to change. But they can also use their capital to help achieve and shape it as well. Many of the UN Sustainable Development Goals have large-scale capital requirements that we believe offer compelling investment opportunities for private investors to earn attractive returns, while contributing to goals ranging from eliminating poverty and lessening inequality to ensuring access to clean water and quality education. By replacing traditional with sustainable investments, investors can position their portfolios to participate in the most significant trends over the next decade.

So how can investors ensure they have maximum impact as they seek to contribute to a better world?

## Fund disruption

Those wishing to promote sustainability without sacrificing return prospects could look at funding companies that are pioneering ways to reduce carbon emissions and pollution. We believe firms offering innovative new products and services in everything from renewable energy and energy-efficiency technologies to



82%

of investors believe the stocks of sustainable companies are good places to put their money because these companies are forward looking and better managed; another 80% want to invest in firms that represent their values. Yet only 44% of respondents said they have sustainable investments in their portfolio.

Source: UBS Investor Watch on the Year Ahead, "Decisions, decisions," 2 Volume 2019

alternative protein sources and waste management have scope to effect positive change and deliver attractive financial returns. The investments can be made via thematic public equity funds that buy company stock, or through private equity or debt. In private markets, we see particular opportunities to fund earlier-stage companies developing technology for carbon capture and utilization, as well as food companies creating plant-based meat and cheese substitutes to replace carbon-intensive animal farming.

### **Invest in the leaders**

Investors can also place funds with companies leading the way in addressing environmental, social, and governance (ESG) challenges in their industry. We believe such firms are likely to see attractive returns due to their leadership in key trends. Examples include health-care companies making medicines affordable in emerging markets, IT companies reducing energy usage and thereby shrinking the carbon footprint of their data centers, and industrial firms implementing innovative practices that improve worker efficiency and safety. Other ESG leaders include consumer firms redesigning products and packaging to minimize waste, offering, for instance, liquid laundry detergent refills to cut down on plastic.

### **Support firms with room to improve**

An “ESG engagement” approach identifies firms with the potential to improve ESG standards and uses investor influence to promote best practices. In doing so, it has a positive impact on sustainability and potentially on the long-term business prospects of the firms

themselves. Examples include influencing the behavior of a boat manufacturer whose waste plastic ends up in oceans, or of a financial services firm whose inflexible working hours make it harder for women to reach leadership positions. Engagement-focused investors could also advocate improving the standards of firms by, for example, encouraging the reduction of the use of antibiotics involved in factory farming, or pushing for safer work conditions in the garment industry. Engagement as a strategy for effecting change has gathered momentum in recent years, with more ESG data providers adding information on proxy voting, asset managers growing their stewardship teams, and shareholder coalitions increasing. For example, the Climate Action 100+ coalition represents over USD 35trn in AUM and has had numerous successes with the 161 companies it engages with. Over 70% have made long-term emissions reduction commitments, including high profile success with major resource-intensive companies.



## A sustainable Legacy

Using capital to effect long-term positive change can be a way for investors to leave a legacy that spans beyond personal wealth. Ideas such as funding disruption, investing in ESG leaders, or transforming underperforming companies could be themes suitable for either Longevity or Legacy strategies.

Liquidity. Longevity. Legacy. disclaimer:

Timeframes may vary. Strategies are subject to individual client goals, objectives, and suitability. This approach is not a promise or guarantee that wealth, or any financial results, can or will be achieved.



Stocksy / ACALU Studio

# Transforming your business

Taking advantage of opportunity in the Decade of Transformation while mitigating its risks could necessitate changes in the way entrepreneurs think about their businesses. In addition to our dedicated research for

executives and entrepreneurs, we surveyed private business owners and executives in our UBS Industry Leader Network\* to offer you insights into how they are tackling these trends.

\* The UBS Industry Leader Network is a global group of UBS clients and prospects who are private business owners and executives. Their views may differ from those of UBS.

## Adapting to demographic change

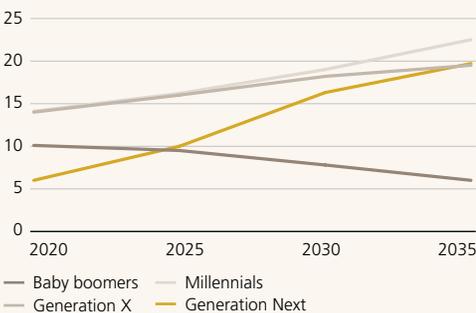
From a business perspective, the aging population is most relevant in the context of shifts in spending power. Over the next decade the aggregate income of the baby boomer generation will halve. That of millennials, by contrast, will grow by one-third, making them the world’s largest earners. An example of a response to this shift comes from the automotive industry. Industry Leaders\* note how older drivers buy cars based on brand, build quality, and performance. Younger drivers increasingly share or rent cars and favor sustainability, reduced emissions, and convenient access. Electric vehicle and smart mobility suppliers may benefit from such population shifts at the expense of traditional car manufacturers that fail to adapt.

For more, see our publication *“E&E: Five tips to prepare your company for demographic change.”*

8.1

### Millennial spending power looks set to rise

in USD trillions



Source: Brookings Institution, as of 30 April 2018

\* The UBS Industry Leader Network is a global group of UBS clients and prospects who are private business owners and executives. Their views may differ from those of UBS.

## Diversifying supply chains

The deglobalization trend could affect the robustness of multinational supply chains. Companies are already seeking out alternative sources of supply to avoid tariffs imposed in the US-China trade dispute. This trend could broaden should trade disputes begin to encompass the EU (see page 37). Localizing production may also grow in popularity. Industry Leaders\* said it can not only reduce exposure to trade levies but also enable businesses to meet growing demand for locally customized goods and services at scale and at speed. As with investing, diversifying your sources of supply, whether raw materials or technology, can help you mitigate risk.

For more, see our publication *“How global supply chains are reacting to trade tensions.”*

8.2

### US tariffs are at their highest levels in recent history

Average tariff rate for all imports, in %



Source: Deutsche Bank, as of 31 December 2018

## Identify areas of disruption

Staying on top of society-transforming technological shifts is difficult. Industry Leaders\* believe the best strategy for doing so is to identify the areas where disruption (and opportunity) may be largest – they pinpoint the auto and healthcare industries. In response, they are planning to invest in smart mobility, healthtech, and enabling technologies, such as AI and 5G, to offer more personalized services fulfilled faster.

For more, see our publications *“E&E: Industry 4.0 and the IIOT”* and *“Smart mobility.”*

## Look at how you work

Many businesses have profited in recent years from greater flexibility in labor laws, most notably in the “gig economy.” With some aspects of this trend reaching their political limits, business owners should remain mindful that more labor-friendly government policies may be enacted. Some businesses may consider investing more both in technology and in upskilling. Industry Leaders\* suggest that the workforce of the future will require investment in automation and in-house training, and will be focused both on technical skills for operating machines and on “softer skills” for raising the value of human capital.

For more, see our publication *“E&E: Health and well-being: Invest in your employees.”*

## Pricing power

A shift toward central bank financing of fiscal stimulus poses a risk of higher long-term inflation in some countries. In such an environment, businesses with pricing power or major economies of scale are likely to emerge the winners. Entrepreneurs who can move away from commoditized, low-margin goods into more personalized offerings with higher barriers to entry have the greatest chance of maintaining their competitive edge.

For more, see our publication *“E-commerce.”*

## Go greener

A focus on environmental impact will grow in the decade ahead. Businesses that do not consider ESG criteria may find themselves at a disadvantage. Members of our Industry Leader Network\* say they intend to invest heavily in environmental technologies, including electric vehicles, renewable energy, and alternatives to single-use plastic. They seek to tap new commercial opportunities (consumers increasingly demand greener products and services) and retain top talent (a recent survey of millennials showed that 40% have chosen a job based on sustainability criteria, compared with just 17% of baby boomers) while anticipating stiffer environmental regulation.

### Executives & Entrepreneurs

For more research on how business owners can adapt to the current environment, visit [ubs.com/cio](https://ubs.com/cio) and click on the Executives & Entrepreneurs tab.

\* The UBS Industry Leader Network is a global group of UBS clients and prospects who are private business owners and executives. Their views may differ from those of UBS.

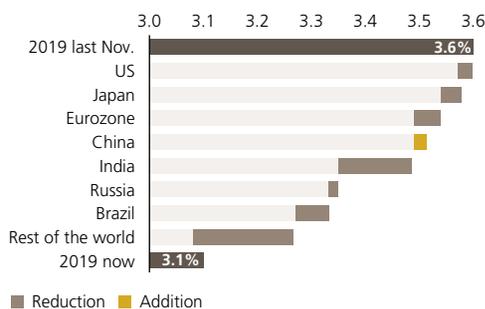
# 2019 in review

- **Growth.** We had forecast global economic growth would slow from 3.8% in 2018 to 3.6% in 2019. But due to a sharper-than-expected downturn in manufacturing and greater US-China trade tensions, it disappointed even those reduced expectations, and will likely be just 3.1%.
- **Rates.** The growth slowdown led to a surprise in rates. The Federal Reserve was on a rate hiking path as 2019 dawned, and we had forecast three hikes in 2019. Yet the slower economy and the US-China trade conflict led the Fed to cut rates three times.
- **Bonds.** We did not expect bond yields to rise meaningfully, forecasting the 10-year US Treasury yield to climb from 3.05% to 3.20%. But the unexpected policy shift and the growth slowdown led to a collapse in yields. Ten-year US Treasury yields fell to a low of 1.46% in September, and their German counterparts slid from 25bps at the start of the year to a record low of –72bps. Yields are currently 1.94% and –0.27%, respectively.
- **Stocks.** Our base case for equity returns was for mid single-digit returns amid greater volatility. Since publication of *Year Ahead 2019*, global equities have returned around 15%. Year-to-date returns have been higher given the violent December 2018 sell-off, and with the MSCI AC World returning 22%.
- **Currencies.** Against our expectations, US dollar strength has persisted. The US dollar index hit a two-year high in September on safe-haven flows. The Chinese yuan met our expectations by depreciating over the course of the year, but has recently regained strength on signs of a US-China trade accord.
- **Commodities.** At the time of *Year Ahead 2019* publication, we had forecast oil prices would rise from USD 60/bbl to USD 75/bbl over the following 12 months. Oil prices rallied in the first four months of the year, but have since declined on waning demand prospects.

9.1

## Global growth has slowed relative to our expectations

Change in global growth, attributed to select regions



Source: Haver, CEIC, national statistics, UBS, as of 11 November 2019

# Economic forecasts

	GDP growth (%)				Inflation (%)			
	2018	2019E	2020E	2021E	2018	2019E	2020E	2021E
<b>Americas</b>								
US	2.9	2.2	1.1	2.1	2.4	1.8	2.1	2.0
Brazil	1.1	0.9	2.5	2.5	3.7	3.6	3.7	3.8
Canada	1.9	1.5	1.4	2.0	2.2	2.0	1.9	1.9
<b>Europe</b>								
Eurozone	1.9	1.1	0.8	1.2	1.8	1.2	1.2	1.3
– Germany	1.5	0.5	0.6	1.1	1.9	1.3	1.1	1.2
– France	1.7	1.3	1.0	1.2	2.1	1.3	1.2	1.3
– Italy	0.7	0.2	0.4	0.5	1.2	0.6	0.6	0.7
– Spain	2.4	2.0	1.7	1.9	1.7	0.8	1.3	1.1
UK	1.4	1.2	0.9	1.2	2.5	1.8	1.8	1.8
Russia	2.3	1.0	1.8	2.3	2.9	4.5	3.2	4.0
Switzerland	2.8	0.7	0.9	1.3	0.9	0.4	0.5	0.7
<b>Asia</b>								
China	6.6	6.1	5.7	5.6	2.1	2.9	2.8	1.7
Japan	0.8	1.0	0.4	1.1	1.0	0.5	0.6	0.7
India	6.8	5.9	6.5	6.7	3.4	3.6	3.9	4.0
South Korea	2.7	1.8	1.9	2.7	1.5	0.3	0.9	1.8
<b>Developed markets</b>	2.2	1.6	1.1	1.8	2.0	1.4	1.6	1.6
<b>Emerging markets</b>	5.0	4.2	4.6	4.8	3.8	4.2	3.9	3.3
<b>World</b>	3.8	3.1	3.0	3.6	3.0	3.0	2.9	2.6

E= Estimate

Source: UBS, as of 11 November 2019

## Rates and bonds

	Base rates			10-year yields (%)		
	Current	2020E	2021E	Spot	Jun 20	Dec 20
<b>USD</b>	1.63	0.90	1.15	1.94	1.70	1.80
<b>EUR</b>	-0.50	-0.60	-0.60	-0.27	-0.50	-0.40
<b>CHF</b>	-0.75	-1.00	-1.00	-0.46	-0.80	-0.70
<b>GBP</b>	-0.75	0.50	0.50	0.77	0.60	0.75
<b>JPY</b>	-0.02	-0.30	-0.10	-0.08	-0.15	-0.05

Source: UBS, as of 11 November 2019

## Commodities

	Spot	Jun 20	Dec 20
<b>Brent crude oil (USD/bbl)</b>	61.7	55.0	60.0
<b>WTI crude oil (USD/bbl)</b>	56.4	50.0	55.0
<b>Gold (USD/oz)</b>	1,465	1,600	1,600
<b>Silver (USD/oz)</b>	16.9	19.5	19.0
<b>Copper (USD/mt)</b>	5,924	6,000	6,300

Source: UBS, as of 11 November 2019

## Currencies

## Developed markets

	Spot	Jun 20	Dec 20	PPP
<b>EURUSD</b>	1.10	1.15	1.19	1.28
<b>USDJPY</b>	109	102	100	75
<b>GBPUSD</b>	1.28	1.34	1.38	1.56
<b>USDCHF</b>	0.99	0.96	0.92	0.93
<b>EURCHF</b>	1.09	1.10	1.10	1.20
<b>EURGBP</b>	0.86	0.86	0.86	0.82
<b>AUDUSD</b>	0.68	0.71	0.68	0.67
<b>USDCAD</b>	1.32	1.33	1.29	1.21
<b>EURSEK</b>	10.7	11.2	10.8	9.8
<b>EURNOK</b>	10.1	10.2	10.2	10.6

Source: UBS, as of 11 November 2019

## Emerging markets

	Spot	Jun 20	Dec 20
<b>USDCNY</b>	7.0	7.0	7.0
<b>USDIDR</b>	14,067	14,000	13,900
<b>USDINR</b>	71.5	70.0	69.0
<b>USDKRW</b>	1,166	1,150	1,130
<b>USDRUB</b>	64	63	62
<b>USDTRY</b>	5.8	6.3	6.7
<b>USDBRL</b>	4.2	4.1	4.1
<b>USDMXN</b>	19.1	19.8	20.5

Source: UBS, as of 11 November 2019

# Impressum

## **Year Ahead 2020 – UBS House View**

This report has been prepared by UBS AG, UBS Switzerland AG and UBS Financial Services Inc. Please see the important disclaimer at the end of the document.

This report reflects the insights and perspective from the entire CIO team across the globe and demonstrates the intellectual leadership of UBS.

## **Global Chief Investment Officer**

Mark Haefele

## **Editor in Chief**

Kiran Ganesh

## **Supervisory analyst**

Mark Boehme

## **Editorial deadline**

12 November 2019

## **Publishing date**

19 November 2019

## **Design**

CIO Content Design  
UBS Switzerland AG

## **Cover photo**

Unsplash / yue su

## **Languages**

English, German, French, Italian, Spanish, Portuguese, Russian, Chinese (Simplified, Traditional), Japanese

## **Contact**

ubs-cio-wm@ubs.com  
ubs.com/cio

SAP-Nr. 82251E-1901

### **Liquidity. Longevity. Legacy. disclaimer**

Timeframes may vary. Strategies are subject to individual client goals, objectives, and suitability. This approach is not a promise or guarantee that wealth, or any financial results, can or will be achieved.

UBS Chief Investment Office's ("CIO") investment views are prepared and published by the Global Wealth Management business of UBS Switzerland AG (regulated by FINMA in Switzerland) or its affiliates ("UBS"). The investment views have been prepared in accordance with legal requirements designed to promote the **independence of investment research**.

### **Generic investment research – Risk information:**

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. 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 forecasts, estimates and market prices indicated are current as of the date of this report, and are subject to change without notice. Opinions expressed herein may differ or be contrary to those expressed by other business areas or divisions of UBS as a result of using different assumptions and/or criteria.

In no circumstances may this document or any of the information (including any forecast, value, index or other calculated amount ("Values")) be used for any of the following purposes (i) valuation or accounting purposes; (ii) to determine the amounts due or payable, the price or the value of any financial instrument or financial contract; or (iii) to measure the performance of any financial instrument including, without limitation, for the purpose of tracking the return or performance of any Value or of defining the asset allocation of portfolio or of computing performance fees. By receiving this document and the information you will be deemed to represent and warrant to UBS that you will not use this document or otherwise rely on any of the information for any of the above purposes. UBS and any of its directors or employees may be entitled at any time to hold long or short positions in investment instruments referred to herein, carry out transactions involving relevant investment instruments in the capacity of principal or agent, or provide any other services or have officers, who serve as directors, either to/for the issuer, the investment instrument itself or to/for any company commercially or financially affiliated to such issuers. 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 not suitable for every investor as there is a substantial risk of loss, and losses in excess of an initial investment may occur. Past performance of an investment is no guarantee for its future performance. Additional information will be made available upon request. 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 foreign exchange rates may have an adverse effect on the price, value or income of an investment. The analyst(s) responsible for the preparation of this report may interact with trading desk personnel, sales personnel and other constituencies for the purpose of gathering, synthesizing and interpreting market information.

Tax treatment depends on the individual circumstances and may be subject to change in the future. UBS does not provide legal or tax advice and makes no representations as to the tax treatment of assets or the investment returns thereon both in general or with reference to specific client's circumstances and needs. We are

of necessity unable to take into account the particular investment objectives, financial situation and needs of our individual clients and we would recommend that you take financial and/or tax advice as to the implications (including tax) of investing in any of the products mentioned herein.

This material may not be reproduced or copies circulated without prior authority of UBS. Unless otherwise agreed in writing UBS expressly prohibits the distribution and transfer of this material to third parties for any reason. UBS accepts no liability whatsoever for any claims or lawsuits from any third parties arising from the use or distribution of this material. This report is for distribution only under such circumstances as may be permitted by applicable law. For information on the ways in which CIO manages conflicts and maintains independence of its investment views and publication offering, and research and rating methodologies, please visit [www.ubs.com/research](http://www.ubs.com/research). Additional information on the relevant authors of this publication and other CIO publication(s) referenced in this report; and copies of any past reports on this topic; are available upon request from your client advisor.

**Important Information About Sustainable Investing Strategies:** Sustainable investing strategies aim to consider and incorporate environmental, social and governance (ESG) factors into investment process and portfolio construction. Strategies across geographies and styles approach ESG analysis and incorporate the findings in a variety of ways. Incorporating ESG factors or Sustainable Investing considerations may inhibit the portfolio manager's ability to participate in certain investment opportunities that otherwise would be consistent with its investment objective and other principal investment strategies. The returns on a portfolio consisting primarily of sustainable investments may be lower or higher than portfolios where ESG factors, exclusions, or other sustainability issues are not considered by the portfolio manager, and the investment opportunities available to such portfolios may differ. Companies may not necessarily meet high performance standards on all aspects of ESG or sustainable investing issues; there is also no guarantee that any company will meet expectations in connection with corporate responsibility, sustainability, and/or impact performance.

Distributed to US persons by UBS Financial Services Inc. or UBS Securities LLC, subsidiaries of UBS AG. UBS Switzerland AG, UBS Europe SE, 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 Puerto Rico 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.**

**External Asset Managers / External Financial Consultants:** In case this research or publication is provided to an External Asset Manager or an External Financial Consultant, UBS expressly prohibits that it is redistributed by the External Asset Manager or the External Financial Consultant and is made available to their clients and/or third parties.

**Austria:** This publication is not intended to constitute a public offer under Austrian law. It is distributed only for information purposes to clients of UBS Europe SE, Niederlassung Österreich, with place of business at Wächtergasse 1, A-1010 Wien. UBS Europe SE, Niederlassung Österreich is subject to the joint supervision of the European Central Bank ("ECB"), the German Central Bank (Deutsche Bundesbank), the German Federal Financial Services Supervisory Authority (Bundesanstalt für Finanzdienstleistungsaufsicht), as well as of the Austrian Financial Market Authority (Finanzmarktaufsicht), to which this publication has not been submitted for approval. UBS Europe SE is a credit institution constituted under German law in the form of a Societas Europaea, duly authorized by the ECB. **Bahrain:** UBS is a Swiss bank not licensed, supervised or regulated in

Bahrain by the Central Bank of Bahrain and does not undertake banking or investment business activities in Bahrain. Therefore, clients have no protection under local banking and investment services laws and regulations. **Brazil:** This publication is not intended to constitute a public offer under Brazilian law or a research analysis report as per the definition contained under the Comissão de Valores Mobiliários (“CVM”) Instruction 598/2018. It is distributed only for information purposes to clients of UBS Brasil Administradora de Valores Mobiliários Ltda. and/or of UBS Consenso Investimentos Ltda., entities regulated by CVM. **Canada:** In Canada, this publication is distributed to clients of UBS Wealth Management Canada by UBS Investment Management Canada Inc.. **China:** This report is prepared by UBS Switzerland AG or its offshore subsidiary or affiliate (collectively as “UBS Offshore”). UBS Offshore is an entity incorporated out of China and is not licensed, supervised or regulated in China to carry out banking or securities business. The recipient should not contact the analysts or UBS Offshore which produced this report for advice as they are not licensed to provide securities investment advice in China. UBS Investment Bank (including Research) has its own wholly independent research and views which at times may vary from the views of UBS Global Wealth Management. This report shall not be regarded as providing specific securities related analysis. The recipient should not use this document or otherwise rely on any of the information contained in this report in making investment decisions and UBS takes no responsibility in this regard. **Czech Republic:** UBS is not a licensed bank in the Czech Republic and thus is not allowed to provide regulated banking or investment services in the Czech Republic. Please notify UBS if you do not wish to receive any further correspondence. **Denmark:** This publication is not intended to constitute a public offer under Danish law. It is distributed only for information purposes to clients of UBS Europe SE, Denmark Branch, filial af UBS Europe SE, with place of business at Sankt Annae Plads 13, 1250 Copenhagen, Denmark, registered with the Danish Commerce and Companies Agency, under No. 38 17 24 33. UBS Europe SE, Denmark Branch, filial af UBS Europe SE is subject to the joint supervision of the European Central Bank (“ECB”), the German Central Bank (Deutsche Bundesbank), the German Federal Financial Services Supervisory Authority (Bundesanstalt für Finanzdienstleistungsaufsicht), as well as of the Danish Financial Supervisory Authority (Finanstilsynet), to which this publication has not been submitted for approval. UBS Europe SE is a credit institution constituted under German law in the form of a Societas Europaea, duly authorized by the ECB. **France:** This publication is distributed by UBS (France) S.A., French “société anonyme” with share capital of € 132.975.556, 69, boulevard Haussmann F-75008 Paris, R.C.S. Paris B 421 255 670, to its clients and prospects. UBS (France) S.A. is a provider of investment services duly authorized according to the terms of the “Code Monétaire et Financier”, regulated by French banking and financial authorities as the “Autorité de Contrôle Prudentiel et de Résolution”. **Germany:** This publication is not intended to constitute a public offer under German law. It is distributed only for information purposes to clients of UBS Europe SE, Germany, with place of business at Bockenheimer Landstrasse 2–4, 60306 Frankfurt am Main. UBS Europe SE is a credit institution constituted under German law in the form of a Societas Europaea, duly authorized by the European Central Bank (“ECB”), and supervised by the ECB, the German Central Bank (Deutsche Bundesbank) and the German Federal Financial Services Supervisory Authority (Bundesanstalt für Finanzdienstleistungsaufsicht), to which this publication has not been submitted for approval. **Greece:** UBS Switzerland AG and its affiliates (UBS) are not licensed as a bank or financial institution under Greek legislation and do not provide banking and financial services in Greece. Consequently, UBS provides such services from branches outside of Greece, only. This document may not be considered as a public offering made or to be made to residents of Greece. **Hong Kong:** This publication is distributed to clients of UBS AG Hong Kong Branch by UBS AG Hong Kong Branch, a licensed bank under the Hong Kong Banking Ordinance and a registered institution under the Securities and Futures Ordinance. UBS AG Hong Kong Branch is incorporated in Switzerland with limited liability. **India:** UBS Securities India Private Ltd. (Corporate Identity Number U67120MH1996PTC097299) 2/F, 2 North Avenue, Maker Maxity, Bandra Kurla Complex, Bandra (East), Mumbai (India) 400051. Phone: +912261556000. It provides brokerage services bearing SEBI Registration Number INZ000259830; merchant banking services bearing SEBI Registration Number: INM000010809 and Research Analyst services bearing SEBI Registration Number: INH000001204. UBS AG, its affiliates or subsidiaries may have debt holdings or positions in the subject Indian company/companies. Within the past 12 months, UBS AG, its affiliates or subsidiaries may have received compensation for non-investment banking securities-related services and/or non-securities services from the subject Indian company/companies. The subject company/companies may have been a client/clients of UBS AG, its affiliates or subsidiaries during the

12 months preceding the date of distribution of the research report with respect to investment banking and/or non-investment banking securities-related services and/or non-securities services. With regard to information on associates, please refer to the Annual Report at: [http://www.ubs.com/global/en/about\\_ubs/investor\\_relations/annualreporting.html](http://www.ubs.com/global/en/about_ubs/investor_relations/annualreporting.html). **Indonesia, Malaysia, Philippines, Thailand:** This material was provided to you as a result of a request received by UBS from you and/or persons entitled to make the request on your behalf. Should you have received the material erroneously, UBS asks that you kindly destroy/delete it and inform UBS immediately. Any and all advice provided and/or trades executed by UBS pursuant to the material will only have been provided upon your specific request or executed upon your specific instructions, as the case may be, and may be deemed as such by UBS and you. The material may not have been reviewed, approved, disapproved or endorsed by any financial or regulatory authority in your jurisdiction. The relevant investments will be subject to restrictions and obligations on transfer as set forth in the material, and by receiving the material you undertake to comply fully with such restrictions and obligations. You should carefully study and ensure that you understand and exercise due care and discretion in considering your investment objective, risk appetite and personal circumstances against the risk of the investment. You are advised to seek independent professional advice in case of doubt. **Israel:** UBS is a premier global financial firm offering wealth management, asset management and investment banking services from its headquarters in Switzerland and its operations in over 50 countries worldwide to individual, corporate and institutional investors. In Israel, UBS Switzerland AG is registered as Foreign Dealer in cooperation with UBS Wealth Management Israel Ltd., a wholly owned UBS subsidiary. UBS Wealth Management Israel Ltd. is a Portfolio Manager licensee which engages also in Investment Marketing and is regulated by the Israel Securities Authority. This publication is intended for information only and is not intended as an offer to buy or solicitation of an offer. Furthermore, this publication is not intended as an investment advice and/or investment marketing and is not replacing any investment advice and/or investment marketing provided by the relevant licensee which is adjusted to each person needs. The word "advice" and/or any of its derivatives shall be read and construed in conjunction with the definition of the term "investment marketing" as defined under the Israeli Regulation of Investment Advice, Investment Marketing and Portfolio Management Law, 1995. **Italy:** This publication is not intended to constitute a public offer under Italian law. It is distributed only for information purposes to clients of UBS Europe SE, Succursale Italia, with place of business at Via del Vecchio Politecnico, 3-20121 Milano. UBS Europe SE, Succursale Italia is subject to the joint supervision of the European Central Bank ("ECB"), the German Central Bank (Deutsche Bundesbank), the German Federal Financial Services Supervisory Authority (Bundesanstalt für Finanzdienstleistungsaufsicht), as well as of the Bank of Italy (Banca d'Italia) and the Italian Financial Markets Supervisory Authority (CONSOB - Commissione Nazionale per le Società e la Borsa), to which this publication has not been submitted for approval. UBS Europe SE is a credit institution constituted under German law in the form of a Societas Europaea, duly authorized by the ECB. **Jersey:** UBS AG, Jersey Branch, is regulated and authorized by the Jersey Financial Services Commission for the conduct of banking, funds and investment business. Where services are provided from outside Jersey, they will not be covered by the Jersey regulatory regime. UBS AG, Jersey Branch is a branch of UBS AG a public company limited by shares, incorporated in Switzerland whose registered offices are at Aeschenvorstadt 1, CH-4051 Basel and Bahnhofstrasse 45, CH 8001 Zurich. UBS AG, Jersey Branch's principal place business is 1, IFC Jersey, St Helier, Jersey, JE2 3BX. **Luxembourg:** This publication is not intended to constitute a public offer under Luxembourg law. It is distributed only for information purposes to clients of UBS Europe SE, Luxembourg Branch, with place of business at 33A, Avenue J. F. Kennedy, L-1855 Luxembourg. UBS Europe SE, Luxembourg Branch is subject to the joint supervision of the European Central Bank ("ECB"), the German Central bank (Deutsche Bundesbank), the German Federal Financial Services Supervisory Authority (Bundesanstalt für Finanzdienstleistungsaufsicht), as well as of the Luxembourg supervisory authority (Commission de Surveillance du Secteur Financier), to which this publication has not been submitted for approval. UBS Europe SE is a credit institution constituted under German law in the form of a Societas Europaea, duly authorized by the ECB. **Mexico:** This information is distributed by UBS Asesores México, S.A. de C.V. ("UBS Asesores"), an affiliate of UBS Switzerland AG, incorporated as a non-independent investment advisor under the Securities Market Law due to the relation with a Foreign Bank. UBS Asesores is a regulated entity and it is subject to the supervision of the Mexican Banking and Securities Commission ("CNBV"), which exclusively regulates UBS Asesores regarding the rendering of portfolio management, as well as on securities investment

advisory services, analysis and issuance of individual investment recommendations, so that the CNBV has no surveillance faculties nor may have over any other service provided by UBS Asesores. UBS Asesores is registered before CNBV under Registry number 30060. You are being provided with this UBS publication or material because you have indicated to UBS Asesores that you are a Sophisticated Qualified Investor located in Mexico. The compensation of the analyst(s) who prepared this report is determined exclusively by research management and senior management of any entity of UBS Group to which such analyst(s) render services.

**Nigeria:** UBS Switzerland AG and its affiliates (UBS) are not licensed, supervised or regulated in Nigeria by the Central Bank of Nigeria or the Nigerian Securities and Exchange Commission and do not undertake banking or investment business activities in Nigeria. **Portugal:** UBS Switzerland AG is not licensed to conduct banking and financial activities in Portugal nor is UBS Switzerland AG supervised by the portuguese regulators (Bank of Portugal "Banco de Portugal" and Portuguese Securities Exchange Commission "Comissão do Mercado de Valores Mobiliários"). **Singapore:** This material was provided to you as a result of a request received by UBS from you and/or persons entitled to make the request on your behalf. Should you have received the material erroneously, UBS asks that you kindly destroy/delete it and inform UBS immediately. Clients of UBS AG Singapore branch are asked to please contact UBS AG Singapore branch, an exempt financial adviser under the Singapore Financial Advisers Act (Cap. 110) and a wholesale bank licensed under the Singapore Banking Act (Cap. 19) regulated by the Monetary Authority of Singapore, in respect of any matters arising from, or in connection with, the analysis or report. **Spain:** This publication is not intended to constitute a public offer under Spanish law. It is distributed only for information purposes to clients of UBS Europe SE, Sucursal en España, with place of business at Calle María de Molina 4, C.P. 28006, Madrid. UBS Europe SE, Sucursal en España is subject to the joint supervision of the European Central Bank ("ECB"), the German Central bank (Deutsche Bundesbank), the German Federal Financial Services Supervisory Authority (Bundesanstalt für Finanzdienstleistungsaufsicht), as well as of the Spanish supervisory authority (Banco de España), to which this publication has not been submitted for approval. Additionally it is authorized to provide investment services on securities and financial instruments, regarding which it is supervised by the Comisión Nacional del Mercado de Valores as well. UBS Europe SE, Sucursal en España is a branch of UBS Europe SE, a credit institution constituted under German law in the form of a Societas Europaea, duly authorized by the ECB. **Sweden:** This publication is not intended to constitute a public offer under Swedish law. It is distributed only for information purposes to clients of UBS Europe SE, Sweden Bankfilial, with place of business at Regeringsgatan 38, 11153 Stockholm, Sweden, registered with the Swedish Companies Registration Office under Reg. No 516406-1011. UBS Europe SE, Sweden Bankfilial is subject to the joint supervision of the European Central Bank ("ECB"), the German Central bank (Deutsche Bundesbank), the German Federal Financial Services Supervisory Authority (Bundesanstalt für Finanzdienstleistungsaufsicht), as well as of the Swedish supervisory authority (Finansinspektionen), to which this publication has not been submitted for approval. UBS Europe SE is a credit institution constituted under German law in the form of a Societas Europaea, duly authorized by the ECB. **Taiwan:** This material is provided by UBS AG, Taipei Branch in accordance with laws of Taiwan, in agreement with or at the request of clients/prospects. **UAE:** UBS is not licensed in the UAE by the Central Bank of UAE or by the Securities & Commodities Authority. The UBS AG Dubai Branch is licensed in the DIFC by the Dubai Financial Services Authority as an authorised firm. **UK:** This document is issued by UBS Wealth Management, a division of UBS AG which is authorised and regulated by the Financial Market Supervisory Authority in Switzerland. In the United Kingdom, UBS AG is authorised by the Prudential Regulation Authority and is subject to regulation by the Financial Conduct Authority and limited regulation by the Prudential Regulation Authority. Details about the extent of regulation by the Prudential Regulation Authority are available from us on request. A member of the London Stock Exchange. This publication is distributed to retail clients of UBS Wealth Management.

Version 06/2019. CIO82652744

© UBS 2019. The key symbol and UBS are among the registered and unregistered trademarks of UBS. All rights reserved.

