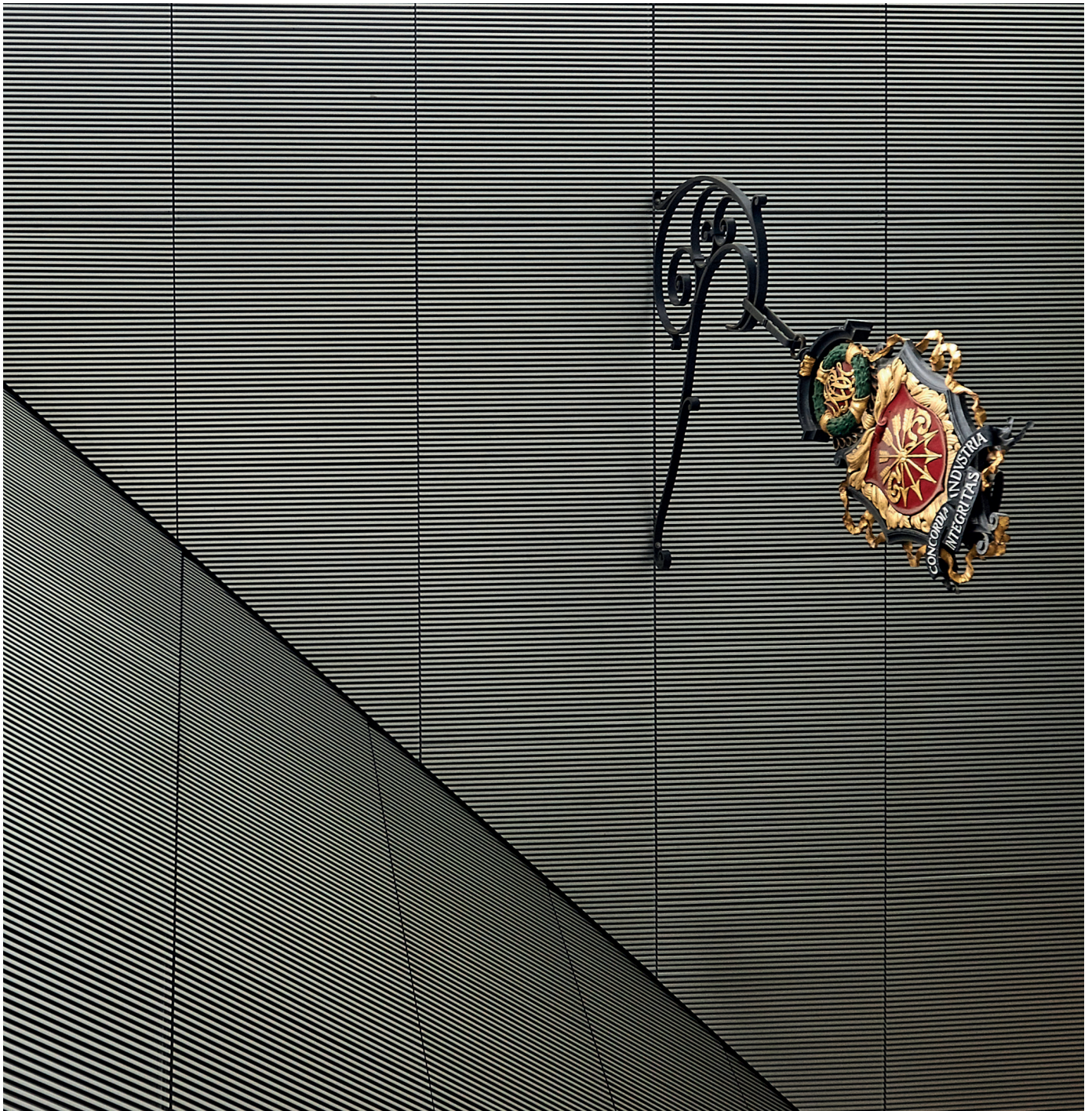


Market Perspective



Cause and FX | Technology v.2

Issue 99 | February 2018



Foreword

The return of volatility is unsettling, but overdue, as we've written here often. US pay growth seems to be the immediate cause. In fact, its upturn does little more than restore an earlier trend. But bonds have been expensive. And after 15 straight months of positive returns the S&P 500 didn't really need an excuse to sell-off: stock valuations were also higher than usual. Nonetheless, we have been – still are – braced for reversals, not collapses. In the case of stocks, we think they will eventually be made good.

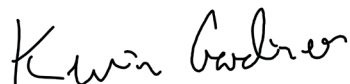
Currency volatility has also picked up in 2018. Despite its “safe haven” rally in recent days, the dollar has been the biggest loser, extending 2017's fall, and the pound has seen the biggest gains. Should this affect our investment views? We think not – or at least, not yet.

Globally, exchange rates are a zero-sum game, and leave the relative attractions of stocks and bonds intact. Their impact on regional returns can be muted: they can be more effect than cause, which seems the case now.

Dollar-based portfolios offer higher returns – but only in dollars, and they may need to in order to offset local inflation risk. With few dramatic misalignments, we doubt currencies will materially affect longer-term returns.

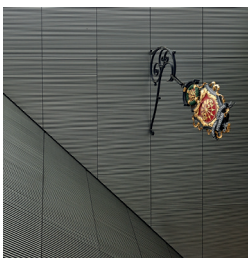
Meanwhile, the business cycle remains in rude health – hence those inflation nerves. Stocks are most volatile, but the lasting damage if inflation revives will be to bonds. And inflation-linked bonds are not risk-free: keep an eye on real yields.

Finally, with many investors hearing echoes recently of 2000's technology-led boom and bust, we look at how the sector has evolved in the meantime.



Kevin Gardiner

Global Investment Strategist
Rothschild Wealth Management



Cover:
A very public symbol of the heritage and values of the family business is the Rothschild shield positioned on the exterior wall of our New Court office in St Swithin's Lane, London. The five arrows combined with the family motto is the only advertisement for the business within.

© 2018 Rothschild Wealth Management
Publication date: February 2018.
Values: all data as at 31st January 2018.
Sources of charts and tables: Rothschild & Co or Bloomberg unless otherwise stated.

Cause and FX

A weak dollar needn't do much damage

The dollar seems to have fallen mostly because there has been better economic news elsewhere for most of the last year or so, and it had previously risen a long way.

In the eurozone, for example, low expectations left more room for positive surprises and second thoughts on interest rates. And the pound, after the EU referendum and some erratic balance of payments data, had priced in a lot of bad news – too much, we felt.

Do these moves matter? If big enough, they could start to become more cause than effect, and act as a sort of automatic stabiliser, rebalancing that economic news more in favour of the US, while damping growth and inflation in Europe and the rest of the world.

The US would effectively be importing inflation, and exporting deflation risk. A stronger euro might tighten eurozone monetary conditions, braking growth and making the ECB less likely to start raising interest rates.

But we think the dollar's fall is not yet big enough for this to be a material consideration. Moreover, it started from levels in late 2016 at which it was relatively expensive – with the US effectively exporting inflation risk – to begin with.

We didn't expect eurozone data to be quite so solid, or the dollar to be this weak, but it is not a big surprise. We cooled on the dollar last spring, and have long felt that eurozone stocks, for example, have been attractive.

Currencies are not always the prime movers of portfolios. They do of course affect investment returns, but their impact can be muted.

If you have a sizeable allocation to stocks you almost certainly have some currency exposure. Most blue-chip companies trade, operate or compete internationally.

A lower dollar boosts the dollar value of US companies' international earnings, and their stock prices will often rise (unless, say, it reflects a domestic crisis causing total US earnings to fall). The value of US stocks to overseas owners might fall, but by less than the dollar's decline.

A stock owner whose home currency is falling will likely receive higher returns than investors elsewhere – but only in local terms. Dollar-based

portfolios have recently been posting bigger returns than others. In 2016, sterling-based portfolios did particularly well.

Those higher returns help compensate for any extra local inflation generated by the lower exchange rate. This suggests a rule of thumb for currency exposure. If imports account for a third of your spending, then perhaps a similar portion of your investments should be in overseas assets (roughly speaking: both figures can only be approximations).

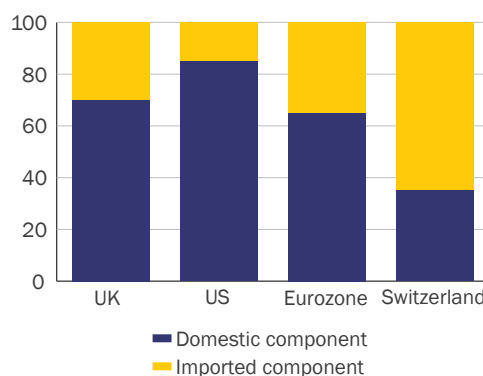
So Swiss investors might – if they agree the franc can go down as well as up these days – want big holdings of foreign currency assets (which, just to confuse things, could include some Swiss blue chips, as those make most of their money outside Switzerland). US investors should have smaller holdings of non-US assets (figure 1). UK investors might be somewhere in between (and their local stock market, like Switzerland's, is more international than most).

Other investors can benefit from higher local returns on depreciated-currency portfolios too, but only if they avoid the currency risk by “hedging”. This is not as easy as it sounds. Currency moves are hard to predict, and hedging is not free.

Generally, investments should be chosen on their merits: the currency of denomination is just one characteristic among many.

Figure 1: Imported and local inflation

Imports as a proportion of domestic expenditure (%)



Source: OECD, Bloomberg, Rothschild & Co

Exchange rate forecasting is not a predictable source of investment return – especially these days, when inflation and interest rates have converged, and few of the big currencies currently seem to be dramatically misaligned (figure 2).

Global growth pushes bond yields higher

Meanwhile, global economic growth continues to look both healthy and relatively evenly distributed, with few signs of excess. US consumers in particular are – remarkably – still acting as net suppliers of liquidity in the ninth year of an economic expansion.

As noted, markets are at last registering a bit more inflation risk, and bond yields have risen outside recent trading ranges in the US and core eurozone markets. Real yields too have been edging higher (figure 3), and may ultimately prove a bigger threat to bond prices than inflation (which is still strikingly well-behaved, even after the US pay data).

Interest rate expectations are unsettling stocks too. But with corporate earnings rising solidly, and US tax cuts restoring some headroom, stock valuations remain less expensive than many fear. Volatility is always unsettling, but we are still braced for a setback, not a rout.

Brexit secrets underwhelm

Finally, and more parochially, we note that recent reports of “secret” UK government estimates of the cost of Brexit are not as daunting as they seem.

The costs are calculated relative to a hypothetical situation in which the UK doesn’t leave. But that is just one of the many unseen alternative lives the UK might lead. The only visible scenario will be the outcome: life outside the EU. And in that, the UK may be collectively more, not less, prosperous than today.

The reported costs of even the “hardest” simulated outcome equate to roughly half a percentage point of GDP per annum for 15 years. If trend growth is in the 2–3% region – talk of “secular stagnation” is unconvincing – the economy can absorb that hit and still deliver meaningful gains.

This will be in spite of, not because of, leaving the EU. But this subtlety may be overlooked.

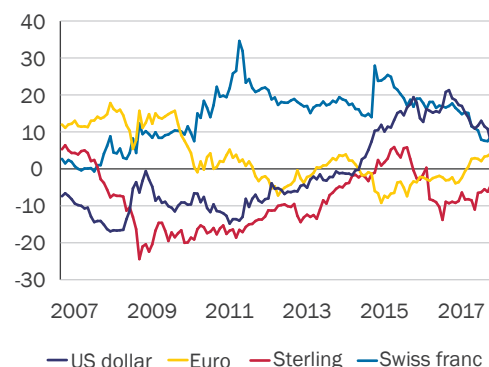
Investment conclusions

Stocks are moderately expensive, and some protection has been warranted. We still think, however, that a more substantial portfolio restructuring would risk leaving us stranded if markets rally. Tax cuts have restored some headroom to the US market; globally, profits are growing, interest rate risk remains modest and political tension seems manageable. Stocks can still deliver inflation-beating returns over the long-term.

- Government bonds have weakened but remain expensive (and more so than stocks), flattered by central bank buying. Most yields remain below likely inflation rates. We still prefer high-quality corporate bonds (credit), but they are also unlikely to deliver positive real returns. We view bonds and cash currently as part of portfolio insurance.
- In the eurozone and UK, we continue to favour relatively low-duration bonds. In the US we have been more neutral, and see some attraction in inflation-indexed bonds. Speculative grade credit has cyclical and policy support for now, but we think it ran out of longer-term headroom some months back, and after likely default and loss, returns may struggle to match inflation.

Figure 2: Trade-weighted currencies

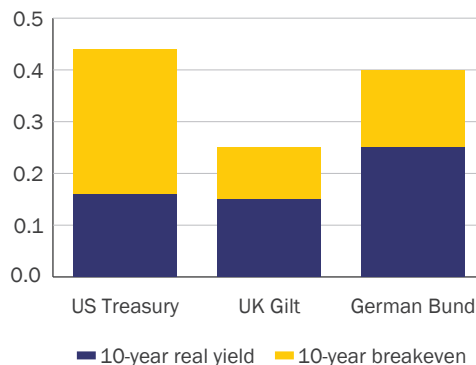
Deviation from 10-year moving average (%)



Source: JPM, Bloomberg, Rothschild & Co

Figure 3: Bond yields not just driven by inflation

Change in yields since 30th November 2017 (%)



Source: Bloomberg, Rothschild & Co

- We do not attempt to call markets tactically, but on a medium and longer-term view we prefer stocks to bonds in most places, even the UK (where the big indices are in any case driven by global trends). We continue to favour a mix of cyclical and secular growth over more defensive bond-like sectors.
- Trading currencies does not systematically add value, and we currently have even fewer convictions than usual. The pound has rallied as we'd thought it could, having been oversold on the EU referendum, and we no longer see it as relatively attractive. The Bank of England may raise rates faster than the markets

expect, but the domestic political backdrop feels even more precarious than in 2017. The dollar has fallen towards fair value, but is still above it, and expectations of higher interest rates are baked in. The euro has been rallying, and economic surprises there have been most positive, but it is no longer cheap. The yuan is dear relative to trend, but the softest of soft landings for the Chinese economy – and slower liberalisation – continues to support it. The yen is cheap, but has no cyclical catalyst. The Swiss franc is the only big currency we single out, and negatively: it remains dear, and its safe-haven status counts for less now euro risk has abated.

Technology v.2

Deja vu all over again?

The developed stock markets total return index recently just managed to revisit its 2000 all-time high relative to bonds (page 6). With technology leading the way again, parallels with the earlier episode have unsettled many investors.

Technology – together with telecoms and media sectors, the “TMT” bloc – was seen then as delivering a “new paradigm”: if you didn’t share this view, you just didn’t “get it”. Scarcity was seemingly a thing of the past in the “Information Age”. Valuations were ignored. Adding ‘dotcom’ to the name caused share prices to surge, and some fanciful business models took flight (as in pets.com).

Established software companies have dramatically scalable business models.

The “TMT” surge was the culmination of the “irrationally exuberant” rally of the late 1990s. After the market peaked in March 2000, the NASDAQ and S&P 500 fell 73% and 42%, respectively. Frothier indices like Germany’s Neuer Markt and Dax fell even harder. Lots of hasty deals were unpicked, and many companies – and eventually the Neuer Markt Index – disappeared.

2000 saw the highest-ever valuations on the major stock indices. The S&P 500 hit a forward PE of 27x, with 10-year Treasury bonds yielding 6.4% (today’s levels are 19x and 2.7% respectively).

What’s the angle this time?

In one sense it is never “different this time”: investment booms and busts are a fact of market life. Are we witnessing another?

The focus has moved on. Social media, cloud computing and cognitive technology – including artificial intelligence – are hallmarks today.

Hard on the heels of a reported third industrial revolution (communications, automation, additive manufacturing, materials science and nanotechnology), some see a fourth. The German government no less cites “Industry 4.0” as the “Internet of Things” approaches. Driverless cars and alternative energy are wrapped up in the mix.

Most recently, a very visible bubble has inflated around the technology underpinning cryptocurrencies. “Blockchain” is today’s “dot.com”.

But not all today’s technology sector is “new”. There are the traditional manufacturers of hardware, including semiconductors – an essential component of many manufactured devices in the way that steel once was.

This group includes companies such as Taiwan Semiconductor (TSMC), HP, Intel, Samsung and Apple. Their tangible assets can be large, and they can have leverage.

Established software companies have dramatically scalable business models, and few tangible assets. It is costly for Microsoft to create and roll out a new operating system, but its market position gives the company huge operational leverage.

“Platform” companies, including eBay, Alibaba, Airbnb, Uber, and Priceline, are an important sub-category, the most prominent being Amazon (now formally a retailer, not a technology company). Their low-cost solutions hugely disrupt “bricks and mortar” (another 2000 echo there) businesses.

The social media and search companies, such as Google (now Alphabet), Facebook and Snapchat, are newer, and reliant on advertising revenue. Their huge user bases give them a wealth of data to continually improve their offering and entrench their position.

Large tech companies are active across many subsectors (in alternative energy and driverless cars, for example). And many industrial businesses such as GE have technology operations.

Less investment banking, and a pivot to Asia

Compared to 2000, there seems less of a rush to go public. Globally, there are an estimated 250 private technology companies worth more than \$1bn. So many “unicorns” suggests today’s founders are content to take a longer term view and delay an initial public offering. Merger and acquisition activity generally feels less buoyant than in 2000. (Over)-ambitious cross-industry tie-ups such as Vivendi-Seagram and AOL-Time Warner seem to be missing now.

There has also been a geographical shift in the technology sector’s footprint. US companies may still be at the cutting edge, but globalisation and the outsourcing of supply chains, together with an affluent emerging consumer, has boosted the sector in Asia, while Europe has fallen by the wayside (figure 4).

Tech companies account for almost half of the 20 most valuable companies globally. Four are based in Asia: Samsung, TSMC, Tencent and Alibaba. The

latter two access a domestic consumer base of over one billion in a market largely closed to many western businesses. No European tech name makes the list.

No longer a political favourite?

US tech traditionally got tax breaks and government support. Politics now is less friendly, with a backlash against the internet giants’ influence. Some critics suggest breaking them up, just as the Sherman act did to Standard Oil in the early 1900s. However, while search engines and social media remain free, treating them as monopolies may be contentious.

More general concerns include the impact of automation on jobs as disillusioned electorates and their governments grapple with inequality.

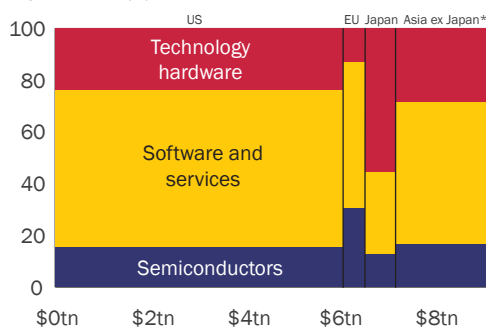
But excesses are fewer than in 2000

The larger tech companies are well capitalised, have strong cash flows and are highly profitable. They are expensive, but less obviously so than in 2000 (figure 5). The US technology sector’s trailing PE is 25x compared with 64x in 2000. This is slightly above the long-term average, but not unusually expensive relative to the market as a whole. Technology accounts for just under a quarter of the overall equity market, as (roughly) do its earnings. In 2000, these proportions were 35% and 15%.

Conclusion? The technology sector has been prone to bandwagon effects, and contributed to a dramatic overvaluation of the wider stock market in 2000. But it offers exposure to ongoing technical progress across a wide range of activities, and its overall valuation currently – like that of the wider market – is more restrained than in 2000.

Figure 4: Technology’s global footprint

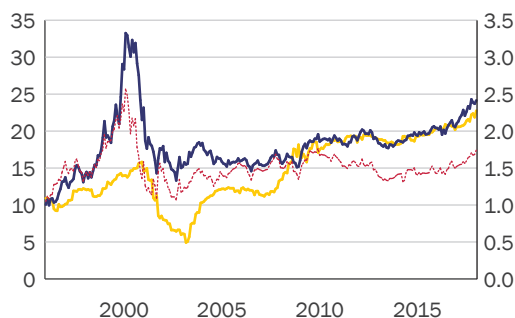
Selected MSCI regional technology subsector by market capitalisation (%)



* Includes China, South Korea & Taiwan. Source: MSCI, Bloomberg, Rothschild & Co

Figure 5: US technology valuations

The US technology sector is not unusually expensive relative to the wider market



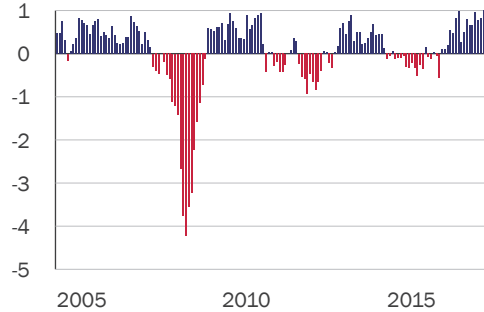
— Market capitalisation: US technology as % of US (left)
 — Earnings: US technology as % of US (left)
 US technology to US equity market PB ratio (right)

Source: MSCI, Bloomberg, Rothschild & Co

Economy and markets: background

Growth: major economies

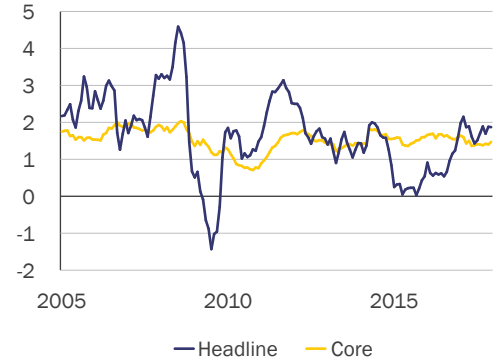
Business optimism: standard deviations from trend



Source: Bloomberg, Rothschild & Co
Composite of the forward-looking components of manufacturing surveys from China, Germany, Japan, UK and US loosely weighted by GDP

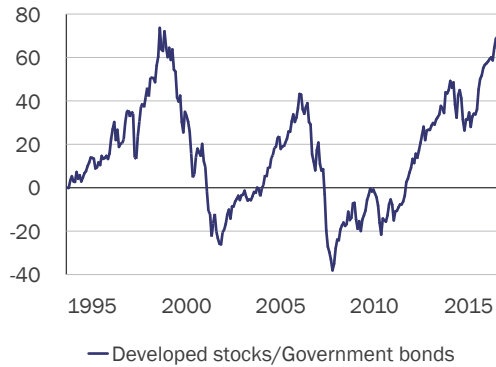
G7 inflation

%, year-on-year



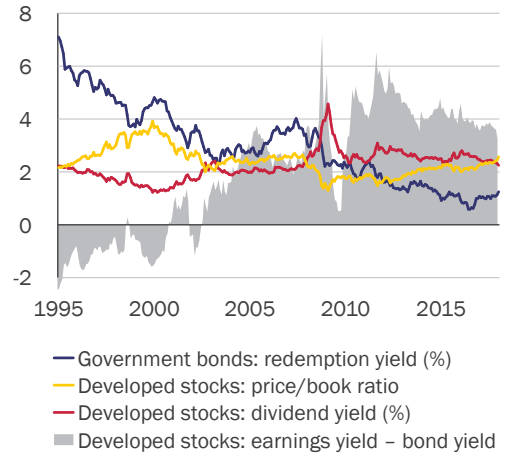
Source: OECD, Bloomberg, Rothschild & Co

Stocks/bonds – relative return index (%)



Source: MSCI, Bank of America Merrill Lynch, Bloomberg, Rothschild & Co

Stocks/bonds – relative valuations



Source: MSCI, Bank of America Merrill Lynch, Bloomberg, Rothschild & Co

Selected bonds

Current yields, recent local currency returns

	Yield (%)	1yr (%)	3yr (%)
10-yr US Treasury	2.7	0.2	-1.2
10-yr UK Gilt	1.5	0.8	4.9
10-yr German bund	0.7	-1.3	0.7
10-yr Swiss Govt. bond	0.1	-0.9	0.3
10-yr Japanese Govt. bond	0.1	0.4	2.6
Global credit: investment grade (USD)	1.8	2.7	5.5
Global credit: high yield (USD)	5.3	7.4	24.7
Emerging (USD)	4.7	6.6	19.6

Source: Bloomberg, Rothschild & Co

Selected stock markets

Dividend yields, recent local currency returns (MSCI indices)

	Yield (%)	1yr (%)	3yr (%)
World: all countries	2.2	22.8	38.2
Developed	2.2	21.4	37.5
Emerging	2.1	34.1	42.1
US	1.8	25.5	47.2
Eurozone	2.8	17.4	24.0
UK	4.2	10.1	24.2
Switzerland	3.1	15.7	22.5
Japan	1.9	21.2	32.1

Source: Bloomberg, Rothschild & Co

Selected exchange rates

Trade-weighted indices, nominal (1980 = 100)

	Level	1yr (%)	3yr (%)
US dollar (USD)	101	-8.5	0.8
Euro (EUR)	126	6.6	10.3
Yen (JPY)	87	-4.0	6.9
Pound sterling (GBP)	79	1.9	-9.6
Swiss franc (CHF)	154	-4.4	-5.7
Chinese yuan (CNY)	135	2.3	-2.7

Source: Bloomberg, Rothschild & Co

Commodities and volatility

	Level	1yr (%)	3yr (%)
CRB spot index (1994 = 100)	197	2.8	-9.8
Brent crude oil (\$/b)	69.1	24.0	30.3
Gold (\$/oz.)	1,345	11.1	4.8
Industrial metals (1991 = 100)	283	20.6	20.1
Implied stock volatility (VIX, %)	13.5	12.9	-35.4
Implied bond volatility (MOVE, bp)	57.2	-21.1	-35.2

Source: Thomson Reuters, Bloomberg, Rothschild & Co

Notes

At Rothschild Private Wealth we offer an objective long-term perspective on investing, structuring and safeguarding assets, to preserve and grow our clients' wealth.

We provide a comprehensive range of services to some of the world's wealthiest and most successful families, entrepreneurs, foundations and charities.

In an environment where short-term thinking often dominates, our long-term perspective sets us apart. We believe preservation first is the right approach to managing wealth.

Brussels

Avenue Louise 166
1050 Brussels
Belgium
+32 2 627 77 30

Frankfurt

Börsenstraße 2 - 4
60313 Frankfurt am Main
Germany
+49 69 40 80 260

Geneva

Rue de la Corraterie 6
1204 Geneva
Switzerland
+41 22 818 59 00

Guernsey

St. Julian's Court
St Julian's Avenue
St. Peter Port
Guernsey GY1 3BP
Channel Islands
+44 1481 705194

Hong Kong

16/F Alexandra House
18 Chater Road
Central Hong Kong SAR
People's Republic of China
+852 2525 5333

London

New Court
St Swithin's Lane
London EC4N 8AL
United Kingdom
+44 20 7280 5000

Manchester

82 King Street
Manchester M2 4WQ
United Kingdom
+44 161 827 3800

Milan

Via Agnello 5
20121 Milan
Italy
+39 02 7244 31

Paris

29 Avenue de Messine
75008 Paris
France
+33 1 40 74 40 74

Singapore

North Tower
1 Raffles Quay #10-02
Singapore 048583
+65 6535 8311

Zurich

Zollikerstrasse 181
8034 Zurich
Switzerland
+41 44 384 7111

Important information

This document is strictly confidential and produced by Rothschild & Co for information purposes only and for the sole use of the recipient. Save as specifically agreed in writing by Rothschild & Co, this document must not be copied, reproduced, distributed or passed, in whole or part, to any other person. This document does not constitute a personal recommendation or an offer or invitation to buy or sell securities or any other banking or investment product. Nothing in this document constitutes legal, accounting or tax advice.

The value of investments, and the income from them, can go down as well as up, and you may not recover the amount of your original investment. Past performance should not be taken as a guide to future performance. Investing for return involves the acceptance of risk: performance aspirations are not and cannot be guaranteed. Should you change your outlook concerning your investment objectives and/or your risk and return tolerance(s), please contact your client adviser. Where an investment involves exposure to a foreign currency, changes in rates of exchange may cause the value of the investment, and the income from it, to go up or down. Income may be produced at the expense of capital returns. Portfolio returns will be considered on a "total return" basis meaning returns are derived from both capital appreciation or depreciation as reflected in the prices of your portfolio's investments and from income received from them by way of dividends and coupons. Holdings in example or real discretionary portfolios shown herein are detailed for illustrative purposes only and are subject to change without notice. As with the rest of this document, they must not be considered as a solicitation or recommendation for separate investment.

Although the information and data herein are obtained from sources believed to be reliable, no representation or warranty, expressed or implied, is or will be made and, save in the case of fraud, no responsibility or liability is or will be accepted by Rothschild & Co as to or in relation to the fairness, accuracy or completeness of this document or the information forming the basis of this document or for any reliance placed on this document by any person whatsoever. In particular, no representation or warranty is given as to the achievement or

reasonableness of any future projections, targets, estimates or forecasts contained in this document. Furthermore, all opinions and data used in this document are subject to change without prior notice.

This document is distributed in the UK by Rothschild Wealth Management (UK) Limited. Law or other regulation may restrict the distribution of this document in certain jurisdictions. Accordingly, recipients of this document should inform themselves about and observe all applicable legal and regulatory requirements. For the avoidance of doubt, neither this document nor any copy thereof may be sent to or taken into the United States or distributed in the United States or to a US person. References in this document to Rothschild or Rothschild & Co are to any of the various companies in the Rothschilds Continuation Holdings AG Group operating/trading under the name "Rothschild & Co" and not necessarily to any specific Rothschild & Co company. None of the Rothschild & Co companies outside the UK, nor companies within the Rothschild Trust Group are authorised under the UK Financial Services and Markets Act 2000 and accordingly, in the event that services are provided by any of these companies, the protections provided by the UK regulatory system for private customers will not apply, nor will compensation be available under the UK Financial Services Compensation Scheme. If you have any questions on this document, your portfolio or any elements of our services, please contact your client adviser.

The Rothschild & Co Group includes the following wealth management and trust businesses (amongst others): Rothschild Wealth Management (UK) Limited. Registered in England No 4416252. Registered office: New Court, St Swithin's Lane, London, EC4N 8AL. Authorised and regulated by the Financial Conduct Authority. Rothschild Bank International Limited. Registered office: St Julian's Court, St Julian's Avenue, St Peter Port, Guernsey, GY1 3BP. Licensed and regulated by the Guernsey Financial Services Commission for the provision of Banking and Investment Services. Rothschild Bank AG. Registered office: Zollikerstrasse 181, 8034 Zurich, Switzerland. Authorised and regulated by Eidgenössischen Finanzmarktaufsicht FINMA.