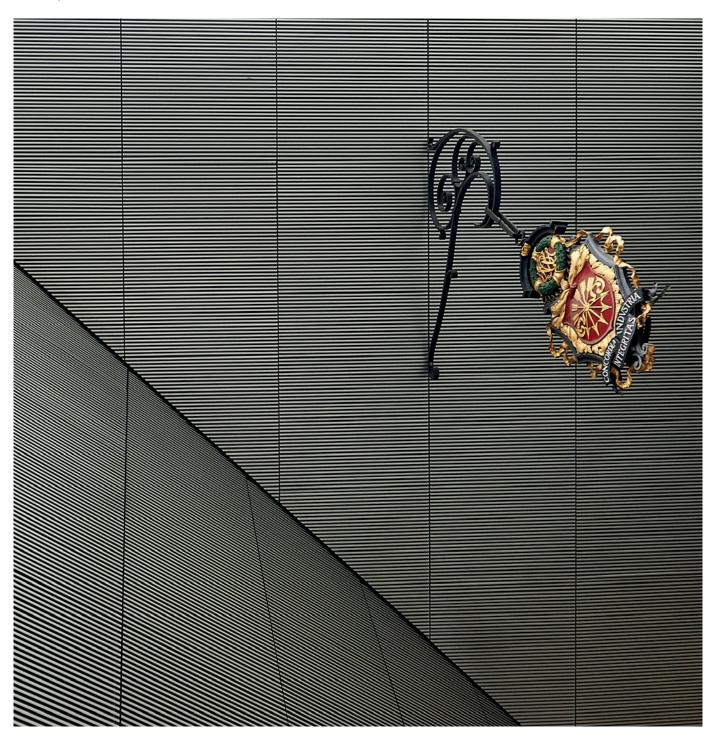
Market Perspective



What will we leave behind?

Issue 110 | March 2019





Foreword

"The biggest big business... is not steel, automobiles or television. It is the manufacture, refinement and distribution of anxiety."

Eric Sevareid (1964)

There goes another big anniversary: the low point in the stock market slump that accompanied the Global Financial Crisis (GFC).

The intervening decade has been filled with cyclical and structural worries – double dips, debt deflation, financial repression and secular stagnation. But despite – because of? – those concerns, most assets have done well.

Stocks have performed especially strongly, and for clear, macro-related reasons: notwithstanding that wall of worry, economies and profits were growing, and interest rates and starting valuations were low. From the close on 9 March 2009, total returns for US stocks have been roughly 400%; and even Swiss and UK stocks have delivered roughly 200% (in local currencies).

In mid-2019, this may become the longest US expansion on record. This makes investors nervous. Meanwhile, profits have to slow sharply – much more so than economies – and US interest rates may eventually start to rise again. And after stocks' rebound – from the GFC and more recently from late 2018's sell-off – headroom is lower now.

Nonetheless, the absence of big cyclical excesses – in households, banks or consumer price indices – suggests little need yet for retrenchment or a more dramatic monetary normalisation. Profits may pause, but not collapse. And ongoing geopolitical tensions (in the UK, embarrassments) may remain manageable – from a narrow investment viewpoint at least. That headroom might still be enough, we think, to offer further inflation-beating returns over the next 10 years too.

In the essay below, we raise our horizon a little further and suggest that in contrast to the prevailing gloom about the world we'll be leaving behind, we suspect our children – like us – will likely be better off than their parents.

Kevin Gardiner

Global Investment Strategist Rothschild & Co Wealth Management

Kun badrer



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.

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What will we leave behind?

The kids are alright

"On what principle is it that, when we see nothing but improvement behind us, we are to expect nothing but deterioration before us?" Macaulay (1830)

A discussion on the theme of succession and stewardship got us thinking about some wider economic issues. We talk a lot about the sorts of individual portfolios that will best allow investors' nest eggs to be passed on intact to future generations. But collectively, what sort of world will we be leaving behind us?

Received wisdom is not optimistic. On top of the short-term cyclical issues usually discussed here – including geopolitical tensions, tariff tussles, strained EU relations, an increasingly mature business cycle and some rather elevated bond and credit prices – we find investors worrying about several longer-term, structural and even existential themes.

We suspect the worries are overdone. Just as we are better off than our parents, our children will likely be better off than us.

We tackled one of those concerns, debt, in February. In addition to worries about what it might mean for today's economy, some very smart people have also suggested that we are somehow borrowing from future generations. Collectively, however, we can no more borrow from the future than we can borrow from Mars.

We've also discussed the related theme of secular stagnation often in these pages. With unemployment in the US, UK, Germany and Japan at generational lows, and trends in developed world corporate profitability close to 50-year highs, the identified shortfalls in measured output growth may not be as meaningful as pundits like to suppose. The diagnosis is arguably a wise-after-the-event explanation of the GFC and its aftermath offered by an embarrassed economic establishment.

Some of the other concerns are more difficult to dismiss. The environmental challenge is real, and seems alarming. New technology, and the prospect of artificial intelligence (AI), can be daunting. And amid today's fast and furious political debate, some important societal lessons are being forgotten.

"Look again at that dot. That's here. That's home. That's us. On it everyone you love, everyone you know, everyone you ever heard of... lived out their lives... on a mote of dust suspended in a sunbeam."

Carl Sagan: earth seen from Voyager 1

The pale blue dot

It's an old and intuitive idea: we are using up the world's scarce resources. How can Carl Sagan's pale blue dot possibly sustain us for long? More recently, the worry has broadened into an awareness that we may also be causing a catastrophic change in its climate.

In practice, however, our ability to measure accurately how much food, water, oil and metal we have left is not what we think it is – and to date we have erred on the side of underestimating them.

When Malthus published *An Essay on the Principle of Population* in 1798, warning that the world would be unable to feed itself, there were around one billion people on the planet. There are now seven billion. Famines sadly do happen, but they reflect local failures – of fertility, weather, or government – rather than a global shortage.

Writing in 1956, the geophysicist M. King Hubbert predicted that US oil output would peak in the early 1970s – which it did, before shale extraction

Figure 1: The pale blue dot

The world as seen from Voyager 1 (1994)



Source: NASA/JPL-Caltech

lifted it to today's record levels. In 2001, Professor Kenneth Deffeyes predicted that global oil production would peak in the next decade: it too is currently at record levels (figure 2).

In 1980, the US economist Julian Simon challenged the pessimistic environmentalist Paul Ehrlich to a public wager. Despite Ehrlich's claim of encroaching depletion, Simon bet that the inflation-adjusted prices of a list of five commodities – to be chosen by Ehrlich – were more likely to fall than rise over the following 10-year period. This was a brave call: 10 years is a short period in this context, and all sorts of things could have boosted prices, even if Simon's underlying diagnosis were true. But as it happened, the prices of all five metals chosen by Ehrlich fell over the period, and he duly wrote the cheque (see Paul Sabin's *The Bet*).

Generally, we have too little confidence in innovation and the price mechanism. We live on the wafer-thin surface of that pale blue dot, and can only guess at exactly what lies in and beneath it. Exploration and extraction techniques are evolving, and when scarcity does prevail, higher prices can spur further efforts, and boost recycling (where feasible) and the use of substitutes. Two-thirds of that surface is water – and may become more available to us as desalination processes improve.

Further climate change is unavoidable, and attempts at limiting its extent have not been helped by America's withdrawal from the UN Paris Climate Accord. Nonetheless, there is still room for mitigation, adjustment – and perspective.

Arranging intergovernmental action is like herding cats, but it can be done: emissions of CFC gases were taken in hand several decades ago. Bringing 'externalities' into the realm of markets – as with carbon trading – can help. So too can the development of renewable and non-carbon-based fuels, including, perhaps, a revival of interest in nuclear fission (and maybe, one day, fusion).

It sounds defeatist to talk of adjustment, but mitigation is not costless: it may make more sense to learn to live with much of the further climate change ahead. Cold weather kills more people than hot; some regions will become more fertile; higher sea levels, and more disruptive weather – which has not yet arrived – can be planned for.

Similarly, we have to ask – feelings run high here – if there are other, less stark, perspectives out there. The prospective increase in average temperature is small by comparison to the existing variation across regions. After the rapid ascent in living standards in the last 200 years (figure 3), some mitigating moderation in growth in the decades ahead would hardly be catastrophic; and one of the byproducts of the current low-interest rate regime is that we are already implicitly valuing the welfare of future generations more highly than ever before. The low discount rates used in the Stern review in 2006 no longer look quite so outlandish.

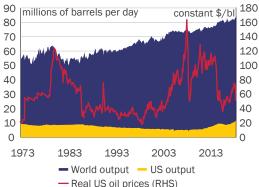
Finally, and at the risk of stating the obvious, to suggest the earth's resources may be more sustainable than feared does not mean we should not care for the environment. Similarly, climate change may not be an existential threat, but we might still hope and vote to mitigate its effects.

The singularity

The robots are coming, and with them the moment when Al matches and surpasses our own – the so-called 'singularity'. At least, that's what we're told.

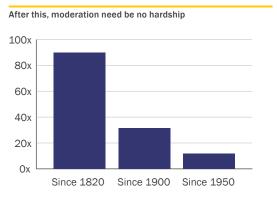
Figure 2: Oil output and prices

Global and even US output have never been higher



Source: Bloomberg, EIA, Rothschild & Co Past performance should not be taken as a guide to future performance.

Figure 3: Global real GDP: multiples of starting levels



Source: Our World in Data, Rothschild & Co Past performance should not be taken as a guide to future performance. The Bank of England's chief economist warned in 2015 that 15 million UK jobs could be taken by robots (there are currently 24 million full-time jobs in the UK, the most ever, and 1 million more than when he made the comment). Professor Stephen Hawking warned in 2014 that Al could result in the end of the human race. The 'paperclip maximizer' is reportedly set to turn the world into a stationery cupboard.

But we see new technology as the creator, not destroyer, of long-term prosperity. It makes us more efficient, more capable, healthier and happier – and helps us obtain more of those scarce resources. And we suspect that genuine AI is still some way away. The room for robots to replace people rather than serve them can be overstated.

Unease is understandable: new technology can also be disruptive. Processing jobs – in finance and legal services now, for example, as well as in factories – are vulnerable, and the Luddites, remember, did lose theirs. We need a decent safety net and retraining for those of us who are displaced. However, new industries and occupations will help fill the gaps – though we never know beforehand what they will be – and historically, the adoption of new technology has been associated with rising overall living standards.

Processing jobs are not the only ones. Financial services, for example, are not just about datamining, trading and settlement, but also involve the provision of advice, connections, and yes – occasionally – even service. The big questions we face tend to be conceptual, about causality rather than correlation, and are not easily answered – by us, or machines.

For example: what really drives interest and exchange rates? Is a price-earnings (PE) ratio of 16 too high? Will investors fund a new issue? Does a merger make commercial sense? Can we insure against catastrophe? What is a 'true and fair' picture of a company's health? How might we best safeguard the real value of our savings?

Other service sectors also face questions – and/ or involve genuine customer engagement – that cannot be covered by pushing more computing power at them.

Meanwhile, there are still many physical tasks that even the most dexterous and agile robots will not be able to do any time soon. This may trigger some interesting shifts in real pay: carers and construction workers, for example, may do better relative to many production and clerical workers. Plumbers and Premier League footballers may get even more expensive.

What about that bigger claim made for machines – that they are on the brink of independent thought and consciousness?

"A complete epistemological description of a language A cannot be given in the same language A, because the truth of sentences in A cannot be defined in A." Kurt Godel

"The general problem of software verification is not solvable by computer." Michael Sipser

We are sceptical. Computers crunch lots of numbers, and identify patterns, very quickly. But they don't think – and they don't create: they copy, from examples we've shown them. If they are to start thinking and creating, they will have to become conscious, and start acting independently, spontaneously. This seems unlikely any time soon.

We don't know how our own minds work, so we can hardly program consciousness into machines. Indeed, what we do know is that whatever it is that underpins intelligence, it is not a single, complete and watertight system of logic or language. Such a system cannot exist (Kurt Godel demonstrated this in 1931).

The various languages at our disposal are all unavoidably incomplete or inconsistent. Suppose I write that I am a liar – do you believe me? Or consider (as Bertrand Russell did) the set of all sets which do not contain themselves as members: does it contain itself? Nonetheless, we are able to communicate and function – we somehow recognise that different contexts require different languages and work-arounds. But we don't know how we shift our frames of reference accordingly, let alone how we might instruct a computer to do so.

It's not just the human mind that has us baffled. Other organic intelligences – starlings, fish, termites – display uncanny capabilities that are currently beyond our understanding.

For now, then, the 'A' in 'Al' may variously stand for artificial, autonomous or augmented, but the 'l' – intelligence – is missing. The questions we ask machines to answer have to be chosen carefully if the answer is to be usable. In *The Hitchhiker's Guide to the Galaxy* by Douglas Adams, remember, the computer Deep Thought was asked for "the answer to life, the universe and everything". After 7.5 million years, Deep Thought concluded that the answer was 42.

If none of this convinces you, just consider this: if robots are going to do everybody's job, who will buy the stuff they make? As Henry Ford said, it's not a good idea to sack your customers.

The political pendulum

Declaration of interest: 60 years ago, the German SPD – the Social Democratic Party – came up with a statement that I think has yet to be improved, about how best to organise an economy: "markets where possible, governments where necessary".

If society moves far from this mixed economy mid-point in either direction, things get worse. If policies focus mainly on markets, and on making the cake bigger, the result is intolerable inequality. But if the focus is mainly on government intervention, and on slicing the cake equally, the result is a much smaller cake.

The biggest departures have been in the direction of bigger government and collectivism. There have been no libertarian experiments to match those in the USSR, China, North Korea, Cambodia and elsewhere. Without exception,

the big experiments ended badly – in lower living standards, and worse. There are few empirical laws in economics, but this seems to be one.

We are usually wary of 'big picture' analysis. For example, we've argued that Trump and Brexit represent nothing more profound than a populist wish to 'stick it to the man' – a backlash against a complacent establishment that might yet fade as quickly as it arrived. But on both sides of the Atlantic, we see the pendulum perhaps swinging quietly back towards collectivism – even as the Venezuelan experiment sadly delivers the usual result. Are future generations going to have to re-learn that economic law all over again?

We think not, but this could be a closer call. On the one hand are the enlightenment values of reason and empiricism. But on the other are unthinking belief – and kitsch. And we are all watching cats on the internet.

Current investment conclusions

We thought stocks' sell-off in late 2018 was overdone, but the bounce now may have used up much of 2019's headroom. We see corporate profits pausing, not going into reverse, but it may be some time before that is clear; meanwhile, the Fed may have paused its monetary normalisation too soon - we would not be surprised to see US rates rising once again later in the year. Corporate creditworthiness also seems more likely to fade as the cycle matures further. Overall, we still see stocks as capable of delivering long-term inflation-beating returns - in marked contrast to most bonds - but cyclical conviction must be lower now than it has been since the market rally began exactly 10 years ago.

- We still see most bonds and cash as portfolio insurance, not as likely sources of real investment return.
- Most government bond markets look expensive, especially as US yields have fallen back, and offer little compensation for inflation and duration risk. Few high-quality yields exceed current inflation rates.
- After their rally, we no longer favour highquality corporate bonds to government bonds in the US. In Europe, where the ECB has now stopped buying, spreads are less tight (over much lower government yields).
- We favour relatively low-duration bonds in the eurozone and UK, and now in the US too.

We still see some attraction in US inflationindexed bonds. Speculative grade credit did not reach sufficiently attractive levels in the sell-off, and the markets have now rallied – and supply has returned. We still see little appeal in local currency emerging market bonds for multi-asset portfolios.

- We still prefer stocks to bonds in most places, even the UK (where the big indices are really global in nature), but after their rebound, we see tactical risk from the ongoing earnings slowdown and/or a rebound in US rates. We have few regional convictions, but still believe emerging Asia's structural appeal remains intact, trade tensions notwithstanding, and US profitability seems set to stay high. We still mostly favour a mix of cyclical and secular growth, but the balance has tilted more towards the latter.
- Trading currencies does not systematically add value, and there are currently few big misalignments among the majors. The Fed's softening of tone hurt the dollar, but we expect economic growth and current interest carry to boost it. In contrast, the euro faces both sluggish growth and an even more doveish central bank. The pound is hostage to Brexit tensions in the short term, but is competitive, and on a long-term view is capable of rallying (eventually) even after a no-deal exit.

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

Stocks/bonds - relative return index (%)



Developed stocks/Government bonds

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

Selected bonds

Current yields, recent local currency returns

	Yield (%)	1 yr (%)	3yr (%)
10-yr US Treasury	2.7	4.5	0.3
10-yr UK Gilt	1.3	3.7	6.3
10-yr German bund	0.2	5.0	2.9
10-yr Swiss Govt. bond	-0.2	2.9	-0.2
10-yr Japanese Govt. bond	-0.0	1.2	0.5
Global credit: investment grade (USD)	2.0	3.9	7.9
Global credit: high yield (USD)	6.4	3.5	30.5
Emerging (USD)	5.5	3.0	19.2

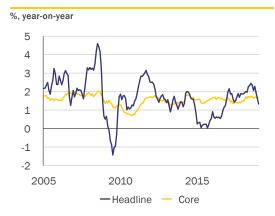
Source: Bloomberg, Rothschild & Co

Selected exchange rates

Trade-weighted indices, nominal (198			
	Level	1yr (%)	3yr (%)
US Dollar (USD)	107	5.3	-0.2
Euro (EUR)	124	-0.9	5.5
Yen (JPY)	90	0.3	1.3
Pound Sterling (GBP)	80	2.6	-5.1
Swiss Franc (CHF)	155	0.5	-1.3
Chinese Yuan (CNY)	134	-0.9	-4.4

Source: Bloomberg, Rothschild & Co

G7 inflation



Source: OECD, Bloomberg, Rothschild & Co

Stocks/bonds - relative valuations



- Government bonds: redemption yield (%)
- Developed stocks: price/book ratio
- Developed stocks: dividend yield (%)
- Developed stocks: earnings yield bond yield

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

Selected stock markets

Dividend yields, recent local currency returns (MSCI indices)

	Yield (%)	1yr (%)	3yr (%)
World: all countries	2.6	1.6	42.1
Developed	2.5	2.5	41.6
Emerging	2.8	-5.1	46.9
US	2.0	4.3	49.9
Eurozone	3.4	-2.9	25.5
UK	4.9	2.1	30.7
Switzerland	3.0	8.6	28.9
Japan	2.4	-6.4	28.2

Source: Bloomberg, Rothschild & Co

Commodities and volatility

	Level	1yr (%)	3yr (%)
CRB spot index (1994 = 100)	183	-5.8	13.0
Brent crude oil (\$/b)	66.0	0.4	88.1
Gold (\$/oz.)	1,313	-0.4	7.4
Industrial metals (1991 = 100)	255	-8.1	37.7
Implied stock volatility: VIX (%)	14.8	-25.5	-25.4
Implied bond volatility: MOVE (bps)	47.2	-25.0	-42.8

Source: Thomson Reuters, Bloomberg, Rothschild & Co

Data correct as of 28th February 2019.

Notes

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