Deutsche Bank
Research

Global

Strategy

Long-Term Asset Return Study

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The Age of Disorder

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Executive Summary

Economic cycles come and go, but sitting above them are the wider structural super-cycles that shape everything from economies to asset prices, politics, and our general way of life. In this note we have identified five such cycles over the last 160 years, and we think the world is on the cusp of a new era – one that will be characterised initially by disorder.

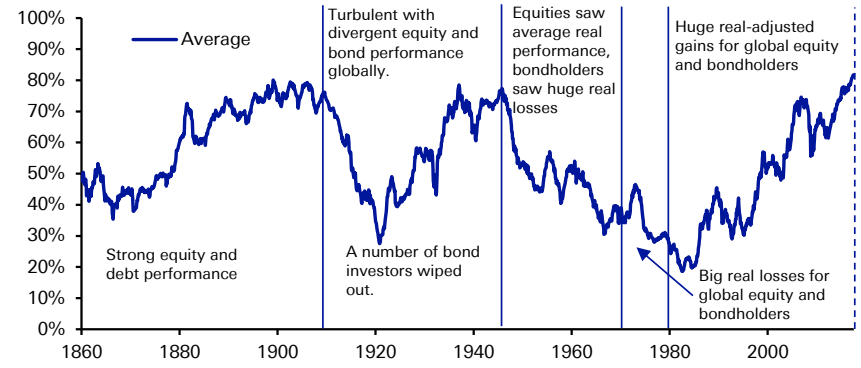
Not all disorder is 'bad'. Indeed, if the themes of the world economy swing like a pendulum, then it may be that some have swung too far from a 'sensible centre' and are due to revert. This can have a cleansing effect. What is worrying, though, is that several themes appear poised to revert at a similar time. This is the point – that simultaneous changes to structural themes will create a level of disorder that will define a new era.

Before we review the key themes of the upcoming "Age of Disorder", we must note that while some historical super-cycles have begun and ended abruptly, others were slower to evolve and end. The most recent era – the second era of globalisation, during 1980-2020 – is much more like the latter. It started slowly and has been gradually fraying at the edges over the last half-decade. The end of this era has been hastened by Covid-19 and – when, in years to come, we look at the rear-view mirror – we may see 2020 as the start of a new era.

By our measure, there have been five distinct eras in modern times, with a sixth likely starting this year:

1. The first era of globalisation (1860-1914)
2. The Great Wars and the Depression (1914-1945)
3. Bretton Woods and the return to a gold-based monetary system (1945-1971)
4. The start of fiat money and the high-inflation era of the 1970s (1971-1980)
5. The second era of globalisation (1980-2020?)
6. The Age of Disorder (2020?-????)

Figure 1: Aggregated 15 DM country average bond (nominal yields) and equity percentile valuations (100% = most expensive; 0% = cheapest)



Source : Deutsche Bank, GFD

The era of globalisation to we are likely waving goodbye saw the best combined asset price growth of any era in history, with equity and bond returns very strong across the board. The Age of Disorder threatens the current high global valuations, especially in real terms. We believe this coming new era will be marked by at least eight themes, which we will briefly summarise in this executive summary and then expand upon in the full note.

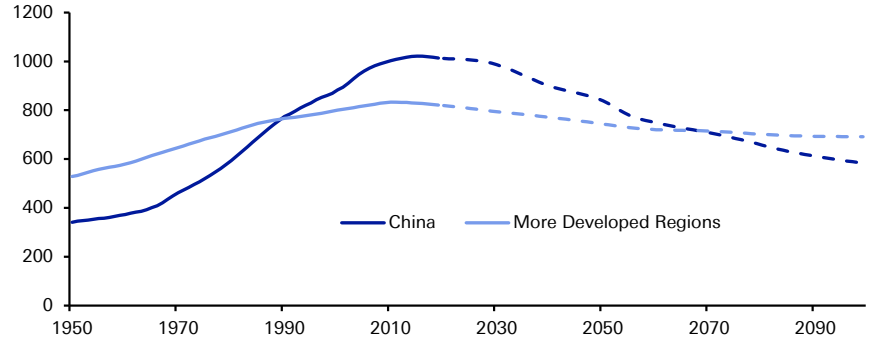
1. Deteriorating US/China relations and the reversal of unfettered globalisation.
2. A make-or-break decade for Europe, with muddle-through less likely following the economic shock of Covid-19.
3. Even higher debt and MMT/helicopter money becoming mainstream.
4. Inflation or deflation? As a minimum, it is unlikely it will calibrate as easily as we saw over the last few decades.
5. Inequality worsening before a backlash and reversal takes place.
6. The intergenerational divide also widening before Millennials and younger voters soon start having the numbers to win elections and, in turn, reverse decades of policy.
7. Linked to the above, the climate debate will build, with more voters sympathetic and thus creating disorder to the current world order.
8. We're in the midst of a technology revolution with astonishing equity valuations reflecting expectations for a serious disruption to the status quo. Revolution or Bubble? Also, if WFH becomes more permanent, it will cause major changes to societies and economies. Big cities were huge winners in the previous era, and this could now reverse.

Although some of these themes have been around for some time, it is only recently that they have begun to feed off each other to hasten the demise of the second era of globalisation. Their increased interaction has thus created the conditions to start their own new era of much change.

The key to understanding this new age of disorder, then, is to see how its themes emerged during the most recent era of globalisation. This was the era that began around 1980, when the world accelerated the move to abolish regulations and capital controls, which subsequently boosted free trade (and global capital flows) and begat a more liberal world order. Global demographics massively supported this phenomenon and ensured a huge increase in workers, many of them from China and other low-income countries. By the mid-1980s, the second era of globalisation was in full flow.

This era was win-win for most of the globe, and everything fell into place over the next three to four decades. Inflation fell largely due to a huge surge in workers (now behind us), and there was also downward pressure on wage inflation due to global labour market integration. In addition, there was help from direct central bank policy, including increased independence around the world. Lower inflation meant lower bond yields (real and nominal) and lower interest rates, and this all allowed for ever-higher equity valuations and profits. As a result, equities generally performed very well relative to what was slowing developed-market growth.

Figure 2: Working age population (millions) now starting to decline after huge recent decades' surge, with implications for inflation, a return to labour vs capital, and inequality



Source : United Nations, Haver Analytics, Deutsche Bank

The cracks in this era began to emerge after the GFC, which revealed that ever-higher leverage had papered over the problems that globalisation had created in many Western countries. Firmly in the spotlight were issues including low real wage growth, the outsourcing of many low-paid jobs, and increased inequality. In response, authorities used heavy intervention (especially monetary) to prop up the existing system (rather than reform it), but populism and resentment built. The Brexit and Trump victories were manifestations of this anger in the UK and US, but populism increased across the globe. It was then that most people realised the era of full-feted globalisation was certainly fraying and the problematic issues it had incubated were about to take centre stage.

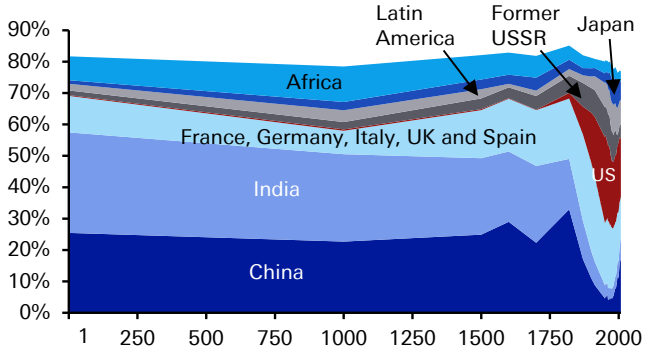
As the Age of Disorder begins, we believe one of the biggest issues will be the political tension between the US and China. Indeed, this should characterise the era of disorder because China has been at the heart of the most recent era – that of globalisation. The future of this relationship can only be forecast by understanding the past. We delve into this in more detail later, but to summarise: China is looking to restore the position it held for much of history as a global economic powerhouse. To illustrate, from two thousand years ago until the early nineteenth century, the country represented around 20-30% of the global economy. It then suffered under colonial powers, particularly in the century before Mao established the modern Chinese state in 1949. By the early 1960s, China's share of the global economy hit an all-time low of 4%. It is now back to 16%.

While China's fortunes rapidly grew during the era of globalisation, so too did tensions with the West. Partly, this came from the incorrect assumption in the West that as China developed it would increasingly become more Western in its outlook and values, and fully integrate into the liberal world order, which contains much American architecture. With hindsight, this was naïve as China has a long, proud and powerful history with its own values.

A clash of cultures and interests therefore beckons, especially as China grows closer to being the largest economy in the world. From the West's point of view, China would not be in its current position if the West had not accepted China into its economic orbit during the latest era of globalisation. Now, the Covid-19 pandemic will likely speed the symbolic point at which China overtakes the US economy as the largest in the world. China has seen a post-Covid V-shaped recovery already, while it has become obvious that recovery in many Western countries will

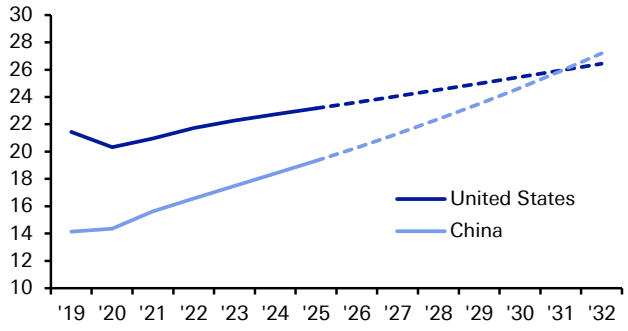
be a lengthier process. Assuming its current trajectory continues, China could become the world's largest economy around the end of this decade or soon thereafter. Regardless, the crossover point with the US seems only a matter of time.

Figure 3: Shares of global GDP through history



Source : Madison Database, Deutsche Bank

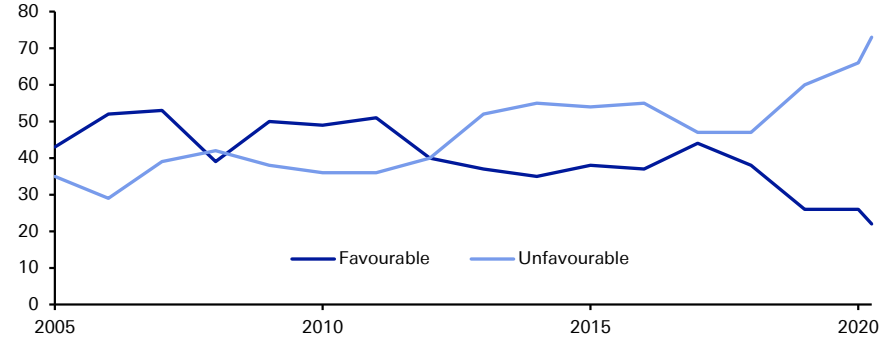
Figure 4: Real GDP (2019 USD, trillions)



Note: Based on DB's forecasts to 2025 and then extrapolating those growth rates beyond that point
Source : IMF, Deutsche Bank

As the economic gap between the US and China narrows, many worry about the so-called Thucydides Trap. This refers to the fact that on 16 occasions over the last 500 years, a rising power has challenged the ruling one, and on 12 occasions it ended with war. While a military conflict today seems highly unlikely, an economic battle is likely to ensue, with the benign global trading conditions of the globalisation era likely to be resigned to the history books. The result of the US election in November is unlikely to change the direction of travel. Over the course of this decade, relations will likely deteriorate into a bipolar standoff as both the US and China seek to prevent encirclement by the other. Companies that have embraced globalisation will be stuck in the middle if relations sour as we fear.

Figure 5: Percentage of US adults who say they have a(n) ____ opinion of China



Source : Pew Research Center, Americans Fault China for Its Role in the Spread of COVID-19, July 30 2020, https://www.pewresearch.org/global/2020/07/30/americans-fault-china-for-its-role-in-the-spread-of-Covid-19/

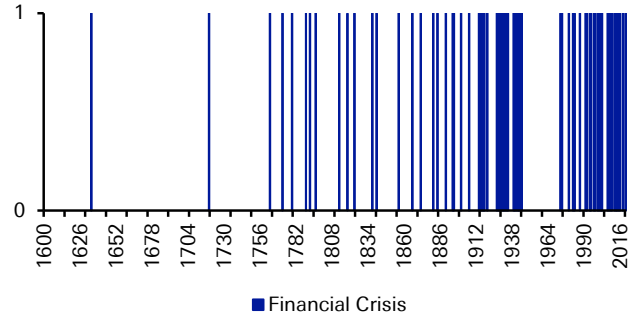
The second theme of the Age of Disorder is that the 2020s could be a make-or-break decade for Europe. The strains on the continent were evident prior to Covid-19, but the virus has probably reduced the chance of the 2020s being a muddle-through decade like the 2010s. The economic divergence between countries will likely be even more pronounced and, as such, it feels like the probability of both integration and disintegration has increased over the last six months. On the one hand, the

Recovery Fund is a genuine and welcome step in the right direction, but it needed to be. On the other hand, given the economic issues ahead, further measures will probably become necessary in the years ahead to prevent maximum disorder.

Even if further economic stimulus can be negotiated as needed, it is likely to be done against a backdrop of consistent volatility and brinkmanship, particularly if domestic politics across the continent gravitate away from those consistent with further EU integration. With the Covid economic shock, that must be a greater possibility now. So the chances of muddling through for Europe have decreased, while the potential for both further integration or disintegration has increased post-Covid. Even if integration wins out, it may still take an acute threat of disintegration to concentrate political minds.

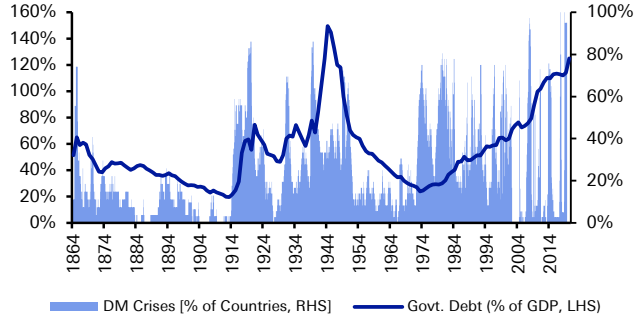
A key problem Europe faces is that many of its countries have too much debt, and this leads straight to our third theme in the Age of Disorder. Far from being just a problem in the European periphery, debt is a global issue – and it is only because central banks have distorted free markets that global borrowing can be financed at a viable interest rate. Given central banks have committed to underwriting the post-Covid recovery, they will have an even more outsized role over the years ahead. Our work in a previous long-term study "The Next Financial Crisis" suggests that periods of higher debt lead to a higher intensity of financial shocks and crises. This trend will be amplified by the Covid-19 crisis and means we will likely see more crises, more disorder and even more money printing in the years ahead. Yes, lower interest rates mean we can run with more debt, but a high-leverage society is always likely to be more shock-prone.

Figure 6: Years with a financial crisis since 1600 (internet search). Binary '1/0' outcome for each year



Source : Deutsche Bank, GFD

Figure 7: Percentage of DM countries in 'financial stress' vs. G7 government debt to GDP

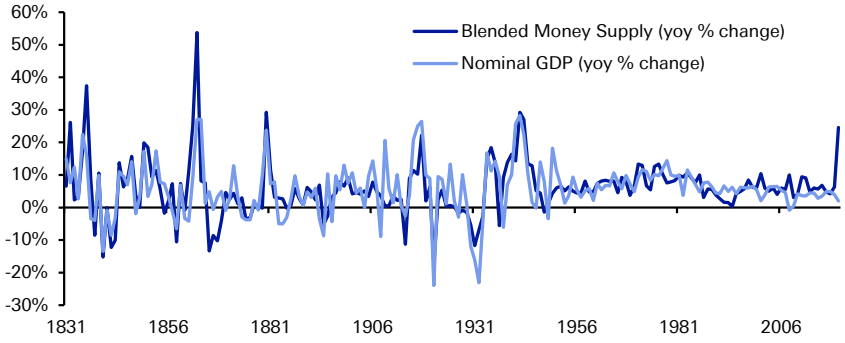


Source : Deutsche Bank, GFD, Haver Analytics

The extent to which we can reduce the huge global debt burden depends heavily upon the fourth theme in the Age of Disorder – inflation. On this topic, DB is still split on whether the debt and Covid-19 crises will be inflationary or disinflationary. Although this team is in the inflationary camp, we acknowledge that the outcome is path-dependent. If we move to a MMT/helicopter-money type world, where both fiscal and monetary policy are expansionary, it is pretty easy to see a jump in inflation. For us, Covid-19 has forced global policy makers to cross the Rubicon with regards to expansionary fiscal policy, and it is unlikely that they'll go back to the austerity of the early-2010s – and with ultra-loose monetary policy almost guaranteed, this will put us in a completely different world order to that seen previously and create a very different macro environment. However, if we're wrong

and governments prioritise the repair of their balance sheets, then – even if central banks keep printing – we are likely to be stuck with low inflation for a longer period. With so much debt, such a scenario will also almost certainly ensure its own elements of disorder ahead.

Figure 8: US money supply and nominal GDP growth. Are we setting the scene for a rise in inflation?

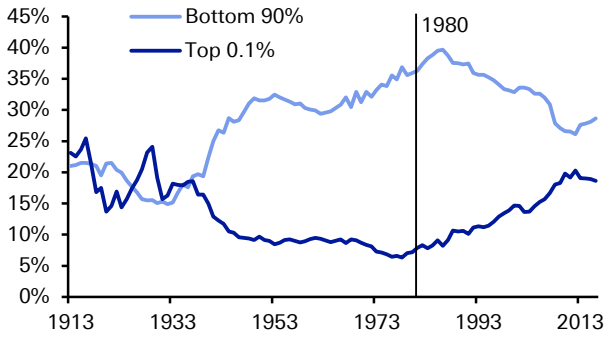


Note: We've used the broad definition of the money supply available. This means it's a blend of currency in circulation (1831), M1 (1930-1948) and M2 (1949-current). The Fed discontinued M3 in 2006, so we did not blend that in historically.
Source : GFD, Deutsche Bank

Regardless of which outcome materialises, it feels that the ability of policymakers to perfectly calibrate inflation towards target in a post-Covid world will be incredibly difficult given the size of the opposing forces. So we expect a higher probability of more extreme outcomes going forward.

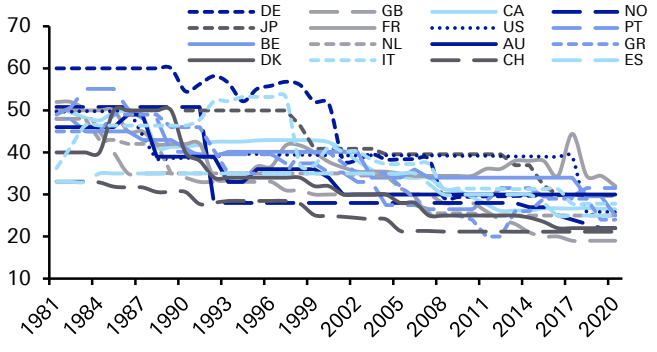
As the outcomes become more extreme, they will heavily influence how progress is made on inequality – our fifth key theme. It may initially worsen, but the need to pay for the Covid shock, and perhaps the reduction of globalisation, may encourage governments to increase taxation on those with deeper pockets. This is likely to be biased towards the highest-paid individuals, but also companies as they have benefited from a race to the bottom in corporate tax in the globalisation era. Technology firms are already attracting greater attention on this front, especially as they have largely benefited from the pandemic.

Figure 9: US household wealth shares (individual unit with equal split)



Source : World Inequality Database., Deutsche Bank

Figure 10: Statutory corporate income tax rates (%)

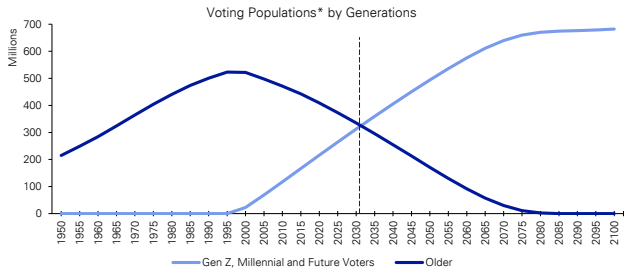


Source : OECD, Deutsche Bank

The discussion of inequality within and between countries will not be limited to wealth and income. In fact, an issue that is quickly emerging as a political force is the intergenerational gap. This is our sixth theme in the Age of Disorder. This segment of inequality has been allowed to build and build in the globalisation era. The general assumption is that the divide between the young and old will worsen as the population ages, and the self-interest of the older generation will ensure that the status quo continues. However, this misses the key point: the age at which the intergenerational divide begins is not constant. It is likely that this age will increase over time as those left behind are unable to catch up and thus the average age of discontentment with the status quo continues to increase over time.

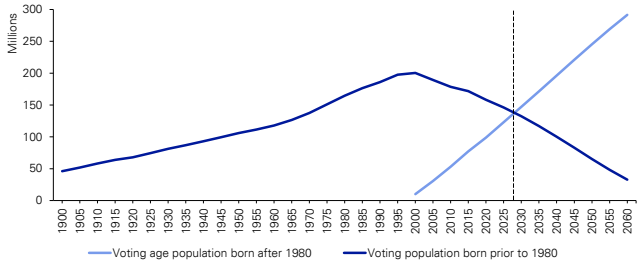
The Millennial generation (born in the early 1980s), along with Generation Z and younger voting cohorts, are firmly established as generational 'have nots'. Yet in G7 countries, the combined size of these groups is fast catching up to that of the generations born prior to the Millennials. The two groups on either side of the divide will be close to neck-and-neck by the end of this decade in aggregate and slightly earlier in the US.

Figure 11: Millennials, Generation Z and younger cohorts will have nearly as many voters as those in older generations in the G7 by the end of this decade



Source : United Nations, Haver, Deutsche Bank
**Voting population estimated from 17.5 years and older*

Figure 12: Millennials and younger generations will make up the majority of the US voting populations by the latter part of this decade



Source : US Census Bureau, Deutsche Bank

Assuming life does not become more economically favourable for Millennials as they age (many find house prices increasingly out of reach), this could be a potential turning point for society and start to change election results and thus change policy. This is particularly the case when we recognise that the votes for Brexit and Trump in 2016 left many younger people feeling angry and alienated by political decisions that a sizable majority of them were against.

Such a shift in the balance of power could include a harsher inheritance tax regime, less income protection for pensioners, more property taxes, along with greater income and corporates taxes already mentioned, and all-round more redistributive policies. The "new" generation might also be more tolerant of inflation insofar as it will erode the debt burden they are inheriting and put the pain on bond holders, which tend to have an ownership bias towards the pensioner generation and the more wealthy. The older generation may also have to be content with lower (or even negative) asset price growth if the younger generation does not have a sudden income boost.

Whether or not individuals see the above as 'good' or 'bad' is not necessarily the point. Rather, it seems clear that this will be a big break from the status quo and lead to far more disorder than in the prior era of globalisation.

Amidst the clash between the young and old, an increasingly fraught issue will be climate change – something that increased during and because of the recent globalisation era. This is our seventh key theme and is one where heavily polarised opinions exist – not just about the extent of the problem, but around the various options available to respond. Although the pandemic has displaced climate change from the front pages for now, as the size of the pro-climate younger generation grows, so too will the pressure on leaders to act.

We are likely to see huge pressures for a greener response to the post-pandemic economic rebuild. To move the world to a consumption-driven model of measuring and judging carbon emissions, we believe a carbon border adjustment tax is needed and this will likely be implemented this decade. Given more Millennials will be elected into positions of power over the coming decade, this tax will probably not suffer from the same watering-down as other environmental legislation. As such, a strong carbon border tax will reinforce the disruption to the status quo and create disorder for both companies and countries in terms of the relationships between them that in the era of globalisation were relatively calm.

Most of the trends identified here would likely have occurred without Covid-19, but many are now likely to be accelerated by its arrival. However, the pandemic brings disorder of its own, which leads us to our final point. As we go to print, we've now marked six months of working from home with no immediate end in sight for many. It's reached a stage where much of this trend will have an element of permanence. This has major implications for cities, residential and commercial property, transport, workers and many ancillary sectors and general activities we've taken for granted over the last several decades. Big/mega cities have been major winners in the globalisation era. Will this trend reverse post-Covid? If so, this will have a major disorderly impact on society as we currently know it.

On a related theme, this is all occurring alongside record tech valuations in equity markets, with some astonishing valuations. It feels this could go one of two ways, both of which would bring large disruption. Either these valuations are proved to be justified and we're close to major technological advancements impacting all facets of life, or we run the risk of a repeat of 2000 where a bubble burst even if much of the technology survived and progressively became integrated into our lives in a more normal evolutionary manner. The latter would have major financial market consequences for a period of time, but would be less revolutionary. The answer is perhaps a combination of both: rapid technological change that is both positive and disruptive but with stark winners and losers in both the tech sector and the wider global economy.

So, the Age of Disorder is likely upon us. In the years ahead, simply extrapolating past trends could be the biggest mistake you make.

LT Returns on a page

Here are bullets summarising the data-heavy back section of this report, where we look at returns of equities and bonds from around the world, and commodities, extending back up to 200 years where we have the data.

- In the US, over the last 100 years (since end-1920) – where we have data for the widest selection of assets – equities have outperformed 10yr and 30yr governments by more than +4.5% p.a., corporates by +3.7% p.a. and T-bills (cash proxy) by +6.8% p.a. They have also outperformed gold by 5.6% p.a., oil by 8.4%, and US housing (prices only) by 6.6% p.a.
- In real terms, over the past 100 years, commodities have generally seen negative returns. Only gold (+2.0% p.a.) and copper (+0.5% p.a.) have seen positive real returns, with the overall commodity index providing -1.1% p.a. While housing ex-rents (+1.1% p.a.) real returns have been positive, they look underwhelming compared to equities (+7.7% p.a.), 10yr Treasuries (+2.7% p.a.) and corporate bonds (+3.8% p.a.). Over recent years, assets like residential housing (to live in) and commodities have been used as portfolio alternatives to equities/bonds. In fact, with the surge in gold prices this year, gold is actually the best-performing asset in our sample over the last 5 years. That said, history suggests that this strategy is unlikely to produce superior long-run results vs. equities.
- Since 1800, US equities have had only two negative decades in nominal terms: the 1930s (-0.5% p.a.) and the 2000s (-0.9%). There have been three in real terms (1910s: -2.8%, 1970s: -1.5%, 2000s: -3.4%). In nominal terms, three of the five best decades for equities since 1800 have occurred in the last four decades (including the most recently completed decade). However, this period also included the worst decade (the 2000s).
- 10yr Treasuries and corporate bonds have never seen a negative-return decade in nominal terms, but six of the 12 decades since 1900 have seen a negative real return from Treasuries, including four successive decades from the 1940s. The last four decades have seen remarkable positive real returns for bonds – although with each decade, we have seen these annualized returns decline, and we can't help thinking that we're setting ourselves up for a return to a few negative-real-return decades ahead in bonds as we move into our Age of Disorder.
- Internationally, there is a survivor bias in fixed income. The majority of the analysed countries with data back to 1900 have provided positive real returns, but there are some notable exceptions; France (-1.2% p.a.), Italy (-1.8% p.a.) and Japan (-0.6% p.a.) all saw negative real returns. Germany would be the worst if we had reliable data for the hyperinflation era. This shows that negative real returns in bonds are easily possible over even very long periods – and once they occur, they can be irreversible. With debt levels so high and yields so low, such an outcome looks likely in the future for a number of countries.
- Since the Euro was introduced (1999), there is little doubt that real equity returns in Europe have been relatively disappointing. Compared to the US and UK (+4.4% and +2.3% p.a. real adjusted, respectively) only Austria, France and Germany have outperformed the UK, but none of the Eurozone equity markets have outperformed the US in real terms. Spain (-1.2% p.a.), Portugal (-0.5% p.a.) and Italy (-0.4% p.a.) have actually failed to provide positive real returns since the introduction of the single currency more than 20 years ago – some worrying stats for supporters of the Euro.

The Age of Disorder

Introduction – The eras that have shaped the last 160 years

Economic and investment cycles tend to be both cyclical and structural. The structural waves shape careers and life experiences and can often last for many decades. It feels like we're coming towards the end of one of these eras now – one that started in the early 1980s. This era has been fraying at the edges in the last half decade, but the aftermath of Covid-19 may accelerate its demise and throw disorder into a relatively controlled world order.

Before we examine the current era in more detail and how it's coming to an end, let's first detail some of the eras seen over the last century and a half and preview what we think the new Age of Disorder will be characterised by.

1. The first era of economic globalisation (1860-1913). A strong period for global growth, increasing global trade, high population growth, low inflation and strong asset prices.
2. The Great Wars and the Depression (1914-1945). The most turbulent period in modern economic history, characterised by conflict and economic hardship; we saw a reversal in global trade. We saw countries struggle with re-pegging their currencies to Gold. Inflation went to both extremes in many countries.
3. Bretton Woods and the brief return to gold (1946-1970). This period was characterised by strong economic growth, low stable inflation after an initial spike post WWII, large debt develeraging, financial repression, and the birth of society as we know it today with welfare-state and big-society movements providing a safety net for citizens across the globe. Government spending and tax rates soared. Global population growth rose and peaked with the birth of the baby bombers.
4. The start of fiat money and the high inflation of the 1970s (1971-1979). The gold/USD-based Bretton Woods system saw pressure build until it broke down in 1971, which left the globe's money moving to a fiat system. Substantial economic turbulence ensued with inflation soaring across the world. The final wave of deleveraging from the 1914-1945 era was completed.
5. The second era of globalisation (1980-2020?). China reintegrated into the global economy, global trade surged. Developed-market baby boomers coming of age and a surge in EM workers (especially China) led to the global workforce exploding in size. Volcker led the global central bank assault on inflation, but globalisation/cheap labour did most of the heavy lifting on keeping inflation low. Asset prices went from the cheapest in history to the most expensive, and lower and lower interest rates and deregulated financial systems led to a huge increase in debt. DM/EM inequality narrowed, but DM inequality increased.
6. The Age of Disorder (2020-). This era is likely to be marked by China overtaking the US as the largest economy in the world, with economic tensions high as this moment approaches. This would help reverse some of the trends of the globalisation era, which reversing demographics would further support. Elsewhere, Europe will likely be on a more binary path towards integration or disintegration now that Covid has further intensified the economic divergences between strong and weak. Debt will continue to

explode higher with MMT/helicopter-money type policies likely proving irresistible. Inequality could initially increase with the after-effects of the pandemic, but soon the need to pay for it and political pressure should start to reverse multi-decade trends. Indeed, as the decade progresses Millennials and younger cohorts will start to rival elder voters in elections in terms of numbers. This could lead to major political changes coming. In addition to the huge economic implications, remember that this group is far more pro climate-protection measures, which again should be a major source of disorder over the coming decade.

How have asset prices performed in these eras?

Although these periods don't necessarily fit neatly into well-defined periods of contrasting asset price returns, you can see some clear trends in the table below.

1. The first globalisation era was generally good for both bonds and equities across the globe.
2. The second globalisation era (1980-2020) saw remarkable returns across both equities and bonds. No country in our sample saw negative nominal or real returns in either bonds or equities in this period.
3. The 1914-45 period saw a fair amount of dispersions of returns. For the winners there was some good performance, but there were big losers. Some of the losses were so bad that our data stops when investors were wiped out. So we can't show the full extent of the permanent destruction of capital in this period.
4. The 1946-1971 period was terrible for bondholders on a real adjusted basis as post-war inflation and a longer period of financial repression dominated the era.
5. The 1970s continued this terrible period for fixed income investors but also saw equities suffer across the globe on a real adjusted basis as inflation climbed aggressively.
6. Interestingly, the only period where commodities all outperformed on a real adjusted basis was during the inflationary 1970s period. Outside of that, commodities tend to have negative real adjusted returns. A big exception has been gold, which continued to outperform in the period since 1980. We believe gold took a structural break upwards from 1971 as in a world of fiat money it became a fiat money hedge. So while returns aren't as strong as equities since 1971, gold has been used increasingly as a hedge to monetary stability.

Figure 13: Global Equity, Bond and Commodity Performance History. Negative numbers shaded.

	Nominal					Real				
	1860-1913	1914-1945	1946-1971	1972-1979	1980-2020	1860-1914	1915-1945	1946-1971	1972-1979	1980-2020
EQUITY										
Australia		11.4%	12.4%	12.7%	10.7%		9.6%	6.9%	1.5%	6.7%
Austria				6.9%	6.3%				0.5%	3.8%
Belgium		6.4%	6.1%	6.9%	9.1%				-0.9%	6.3%
Canada	5.9%	7.5%	10.1%	12.6%	8.5%	6.4%	6.1%	6.6%	3.6%	5.4%
Denmark		3.4%	7.6%	10.3%	13.8%		-0.3%	3.1%	-0.1%	10.7%
France	6.3%	11.0%	12.4%	9.9%	10.1%	5.6%	-0.4%	2.5%	-0.1%	7.0%
Germany	7.6%	1.2%	6.4%	4.8%	8.5%	5.0%	-55.0%	3.3%	-0.3%	6.3%
India	7.5%	5.1%	6.2%	20.2%	17.9%		2.1%	2.1%	10.9%	9.6%
Ireland	4.6%	6.0%	9.9%	16.2%	10.4%			5.6%	1.9%	6.8%
Italy			13.5%	0.8%	9.5%			7.4%	-12.3%	5.0%
Japan		8.6%	23.9%	13.1%	4.3%		2.0%	6.3%	3.2%	3.3%
Netherlands		4.6%	8.3%	8.7%	10.8%		2.8%	3.7%	1.3%	8.4%
New Zealand		8.0%	10.9%	8.1%	12.5%		6.9%	6.0%	-4.0%	7.9%
Norway				12.1%	9.5%				3.5%	5.7%
South Africa	6.6%	11.6%	7.1%	23.6%	15.4%		10.5%	3.4%	11.1%	6.3%
Spain			13.8%	-3.2%	10.5%			7.1%	-16.8%	5.9%
Sweden		2.9%	10.1%	8.1%	15.1%			5.7%	-1.0%	11.4%
Switzerland		5.1%	8.0%	2.5%	8.6%		2.7%	5.5%	-2.1%	7.0%
UK	3.5%	6.1%	11.7%	8.0%	10.9%	3.4%	4.1%	7.3%	-5.5%	7.1%
US	8.5%	8.1%	11.6%	5.0%	11.6%	7.2%	6.4%	8.2%	-2.9%	8.3%
BOND										
Australia	4.1%	5.4%	3.8%	7.1%	9.6%		3.7%	-1.3%	-3.6%	5.6%
Austria			6.4%	8.4%	6.7%			-3.8%	1.9%	4.2%
Belgium	3.8%	4.8%	4.7%	5.4%	8.2%				-2.3%	5.4%
Canada	4.4%	4.6%	3.5%	5.0%	8.7%	4.8%	3.2%	0.2%	-3.4%	5.6%
Denmark	4.2%	5.4%	5.8%	10.0%	9.8%	3.8%	1.5%	1.4%	-0.3%	6.8%
France	4.2%	4.3%	4.2%	6.1%	8.6%	3.5%	-6.5%	-5.0%	-3.5%	5.6%
Germany			-3.4%	8.4%	6.6%			-6.3%	3.2%	4.5%
India	3.5%	5.5%	3.4%	5.4%	8.5%		2.7%	-0.6%	-2.8%	0.9%
Ireland		4.8%	3.6%	7.6%	10.0%			-0.4%	-5.6%	6.4%
Italy	5.8%	4.8%	3.3%	6.6%	10.6%	5.1%	-11.3%	-2.3%	-7.2%	6.0%
Japan		5.1%	8.6%	6.8%	4.8%		-1.3%	-6.9%	-2.6%	3.9%
Netherlands	3.7%	4.6%	1.7%	7.2%	7.1%	3.7%	2.0%	-2.6%	0.0%	4.7%
New Zealand		4.9%	2.5%	1.9%	10.3%		3.7%	-1.9%	-9.5%	5.8%
Norway	3.9%	6.6%	1.8%	4.1%	8.5%	3.5%	3.4%	-2.1%	-3.9%	4.8%
Portugal	5.1%	6.7%	3.0%	1.4%	12.6%			0.0%	-15.6%	6.0%
South Africa		4.1%	4.3%	9.2%	12.2%		2.3%	0.7%	-1.8%	3.4%
Spain	5.9%	5.6%	3.2%	7.0%	10.6%	5.6%	0.6%	-2.9%	-8.1%	6.0%
Sweden	4.2%	4.8%	3.5%	5.6%	7.9%			-0.6%	-3.3%	4.4%
Switzerland		4.3%	3.3%	5.7%	4.2%		2.2%	0.8%	0.9%	2.6%
UK	2.5%	4.4%	1.5%	7.3%	9.0%	2.2%	2.5%	-2.5%	-6.1%	5.3%
US	4.6%	4.0%	2.4%	4.0%	7.9%	3.5%	2.1%	-0.8%	-3.9%	4.8%
COMMODITIES										
Gold	0.0%	1.9%	0.6%	36.0%	3.3%	-0.9%	0.0%	-2.5%	25.8%	0.3%
Copper	-1.0%	-0.8%	5.7%	9.4%	2.6%	-1.9%	-2.6%	2.4%	1.1%	-0.4%
Oil	-3.8%	0.0%	1.2%	35.2%	0.1%	-4.7%	-1.9%	-1.9%	25.0%	-2.8%
Wheat	0.1%	1.9%	-0.2%	12.8%	0.5%	-0.9%	0.0%	-3.3%	4.3%	-2.4%
Commodities (CRB Index)			1.3%	13.3%	0.0%			-1.8%	4.8%	-2.9%

Source :Deutsche Bank, GFD

To understand the upcoming decade of disorder, it is worth walking through the themes of the globalisation era and how they are slowly giving way to a new regime.

Why we are coming to the end of an era

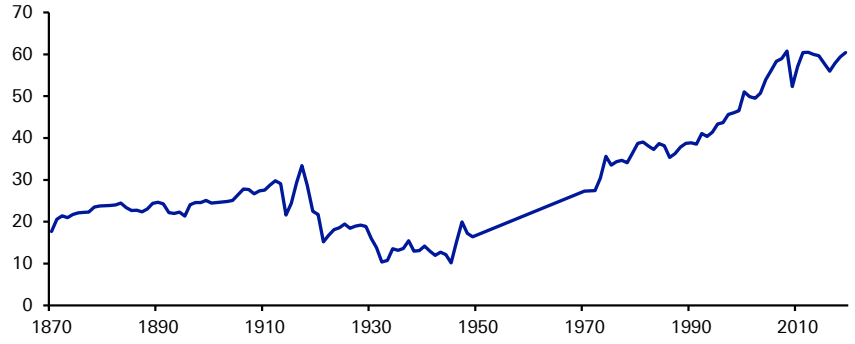
It's easy to argue that the most recent era of globalisation has been the optimal system for global growth. After all, it dramatically improved poverty levels, reduced inequality between rich and poor nations, and produced strong asset price gains. Yet, the side effects have become increasingly evident. Many of the benefits the world consumed during this era relied on runaway levels of debt, the hollowing-out of traditional manufacturing jobs, and low wage growth for the masses. As a result, many countries have experienced a loss of domestic political autonomy, rising concerns over immigration, and an increasingly-polarised political narrative. So while the globalisation era was still shiny on the outside, for many years it has been corroding from within.

While it is easy to point the finger at runaway globalisation as being the catalyst for the death of one era and the birth of another, it is not that simple. In fact, we cannot begin to forecast how the future era may look without understanding how some of the nuances in the decisions and events of the last economic era have led to its demise.

The current economic era perhaps started at the very end of the 1970s with China's reemergence into the global economy after a couple of centuries of being largely dormant. As Figure 23 shows in the next section, China was very much a sleeping giant – one that was accustomed to being one of the dominant forces on the planet. So perhaps the old order was being restored, and – as we'll see in the next section on deteriorating US/China relations – China largely believes it is returning to its natural place at the centre of the global economy. However, before it could properly reclaim this place, it needed to catch up first. It did this rapidly for the four decades after 1980, and for most of this period the rest of the world saw this as a big positive. It wasn't until recent years that concerns arose over this rapid reshaping of the world order.

Although China has been the main driver, it has been the era of global liberalisation. China's global economic reentry was enhanced a decade later by the collapse of the Iron Curtain (1988-91) and the economic liberalisation of India in 1991 following the IMF bailout. Combined, this has basically added over a billion cheap workers to the global economy over this period, opened up global trade, reduced global inequality and led to dramatic changes in the balance of economic power across the world.

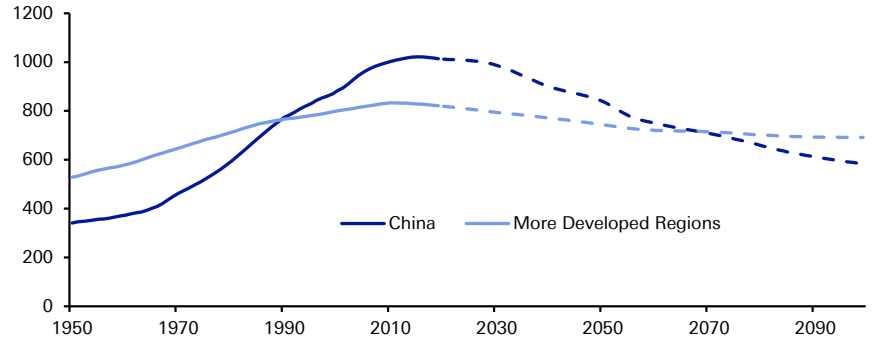
Figure 14: Global Trade (% of GDP)



Source :Deutsche Bank, Klasing and Milionis, World Bank

This liberation of workers from previously closed economies coincided with a global demographic surge in those of working age to create an abundance of workers. This, we argue, has shaped the entire last four decades in the global economy, inflation, politics and asset prices, amongst other things. As the graph shows, this natural demographic dividend has been peaking over the last decade and will now gently reverse after decades of rapid growth. This could now herald the global direction of economic and political travel in many areas.

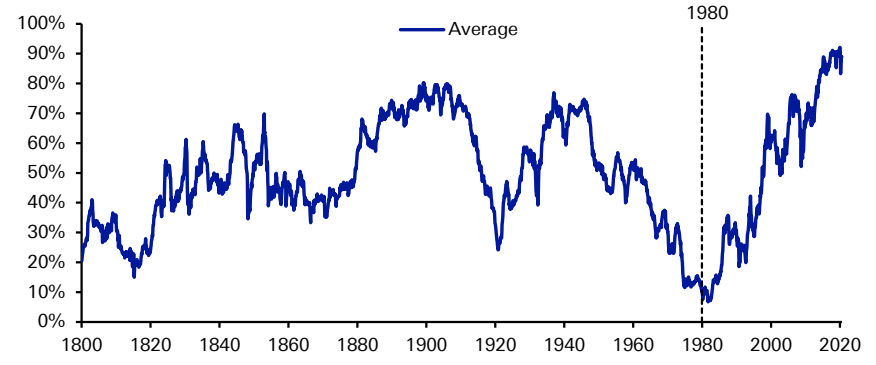
Figure 15: Working Age Population (millions)



Source : United Nations, Haver Analytics, Deutsche Bank

Just as the current era of globalisation began 40 years ago, inflation was high, global economic growth was patchy, global trade had only just recovered to pre-WWI levels (as a percentage of GDP), real and nominal government bonds were high, and equity valuations and profits were severely depressed. Indeed, on our measure, combined equity and bond valuations were the cheapest in history across 15 developed market countries for which we track long-term data.

Figure 16: Aggregated 15 DM country average bond (nominal yields) and equity percentile valuations (100% = most expensive; 0% = cheapest)



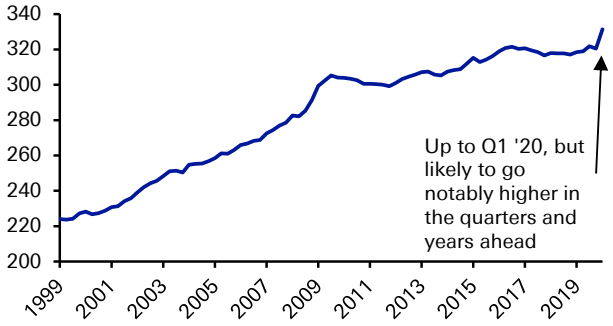
Source : GFD, Deutsche Bank

Everything fell into place over the next three to four decades. A surge in workers helped suppress inflation due to downward pressure on wages as the world integrated the Chinese and EM labour markets. There was also the impact of direct central bank policy biases and the increased independence of monetary policy around the world. Lower inflation meant lower bond yields (real and nominal) and lower interest rates – and that, in turn, allowed for higher and higher company profits and equity valuations. So despite the slowing of growth in developed

markets, stock markets generally performed well, increasing wealth for shareholders and revenue for governments.

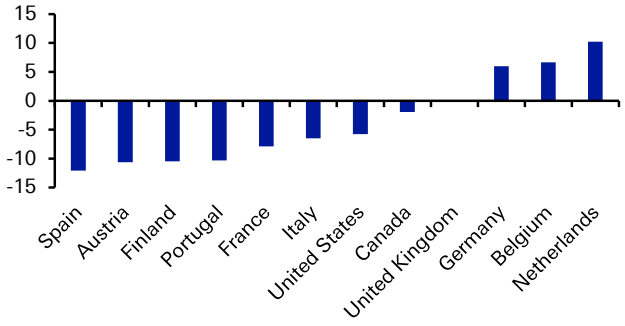
The problem was that this slowing of developed market growth was masked by ever-growing levels of debt, especially in the years leading up to the financial crisis in 2008-09.

Figure 17: Total global debt (% of GDP)



Source : IIF, Haver Analytics, Deutsche Bank

Figure 18: Cumulative change in labour share of GDP, 1980-2020 (%-pt)…



Source : European Commission, Haver Analytics, Deutsche Bank

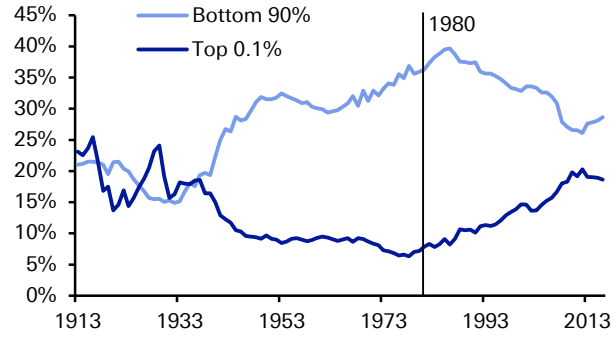
Indeed, the GFC probably signaled the first cracks in the globalisation era as it cast severe doubts in the pyramid-type scheme of ever-increasing debt levels to aid general prosperity and offset and mask the fact that real wages had been pretty stagnant for large parts of the developed market population since the early 1980s.

The regime certainly had a stay of execution during the GFC as central banks prevented a mass default cycle by propping up debt while a huge program of quantitative easing ensured that the debt pyramid scheme could continue.

Whilst this prevented an economic collapse, it perhaps only papered over the cracks in some areas and exacerbated issues elsewhere.

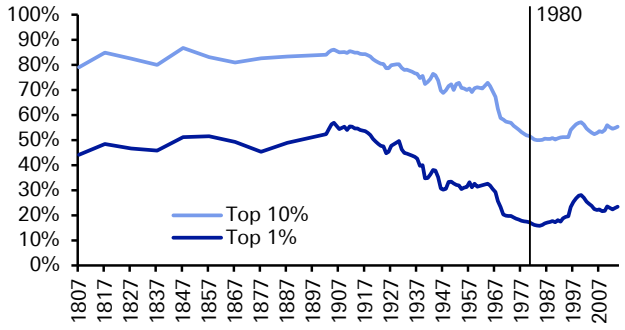
On the former, it didn't change the fact that real wages had been essentially stagnant for three decades, with lower-income earners now seeing less availability of credit to mask their lack of income growth. On the latter, it further encouraged inequality across many parts of the world. Figure 19 shows that in the US, the now 40-year widening inequality trend wasn't interrupted for long, and there is some evidence it has actually worsened since QE propped up the existing financial system. Even in countries like France, where society is generally deemed to be more equal, decades of wealth redistribution started to reverse around the start of the globalisation era.

Figure 19: US net personal wealth shares



Source : World Inequality Database, Deutsche Bank

Figure 20: French wealth shares



Source : World Inequality Database, Deutsche Bank

So the period 1980-2008 was the sweet spot for the globalisation era. The optimists saw it as a win/win for rich and poor countries, and borrowers and lenders. Yet in retrospect, the signs of decay were obvious. It took QE to maintain the status quo during and after the GFC. Meanwhile, Europe was dealing with the spectre of sovereign default, which created an existential risk to the EU and fuelled populism. Just as people began to admit the globalisation era was fraying at the edges, the landmark moments of Brexit and the election of Donald Trump rammed home the reality that the side effects of the era had been unpicking the world's economic fabric for some time.

We think a key moment that marked the beginning of the coming decade of disorder occurred towards the end of the 2010s when US and China ramped up their trade war. Such a schism was probably on the cards for some time and will likely now be accelerated and amplified by the Covid shock.

Covid-19 has been a caffeine shot for regime change, hastening the inflection points in demographics, globalisation, liberalism, domestic politics, geopolitics, and asset prices. It is true that rapid change has occurred many times in the past. The difference this time, though, is that many, somewhat independent, changes are poised to occur at the same time. The collision of multiple, rapid changes will have unexpected secondary and tertiary effects on the global economy that may last for decades and define future eras.

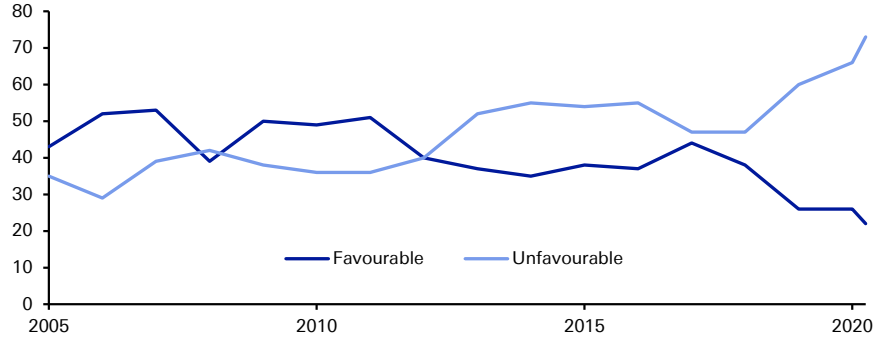
Of course, it is difficult to forecast the exact minutiae of the themes that will define the coming era of disorder. So, in the following sections, we use long-run evidence and data to develop the likely path of the key themes as they variously mean-revert, rebel against their current position, or use recent developments as a foundation to grow and become era-defining mega-themes.

A Cold War between the US and China

In 2000, twenty years into our current era, the global geopolitical structure was relatively simple. The three key political blocs were the US, China, and the EU. China and the US were joined in a dollar zone, wherein China would be permitted to emerge and integrate its labour force as a benign player in the global economic and security system. Meanwhile, the EU would politically integrate further and emerge as a heavyweight geopolitical power.

It has not turned out that way. Over the course of this coming decade, these tri-partite relations will likely deteriorate into a bipolar standoff as both the US and China seek to prevent encirclement by the other. The Covid-19 pandemic will likely accelerate this trend. It is being used as a heavy political wedge by both countries and will be a central theme in the upcoming US election given that public opinion against China is strongly bipartisan.

Figure 21: Percentage of US adults who say they have a(n) ____ opinion of China



Source : Pew Research Center, Americans Fault China for Its Role in the Spread of COVID-19, July 30 2020, https://www.pewresearch.org/global/2020/07/30/americans-fault-china-for-its-role-in-the-spread-of-Covid-19/

Yet, no matter who wins this year's US presidential election, we believe the US and China are headed for a decade of high tensions, and disorder will likely be the end result. It seems probable that this will somewhat mirror those of the US/Soviet Cold War. The trade war will likely escalate and include more tariffs, sanctions, capital controls, blocked technology transfers and border crossings. In this scenario we would expect fights over technological standards, an arms race, asset seizures, and attempts to accumulate and influence allies. Although the Thucydides Trap suggests the prospect of war, a full-blown military conflict seems unlikely.

Out of this new Cold War, two semi-frozen blocs are likely to emerge. On one side will be China with its allies, and on the other the US and its allies. We would expect this to develop into a stand-off with no side 'winning'. Taiwan could well be a political sticking point. ASEAN will be drawn into China's orbit by the sheer weight of economic dependence. Japan, South Korea, and Australia will likely be in the US camp. Meanwhile, as US energy self-sufficiency makes it increasingly indifferent about the Middle East, China, the EU, Russia, and Turkey will contend for influence in the region, as well as in Africa.

Europe and the rest of the world cannot remain neutral. Indeed, the EU will probably be increasingly encouraged to side with the US in its Chinese containment strategy and the battle over technology. Already, some European countries have raised concerns about the 17+1 meeting of Central and Eastern European countries, along

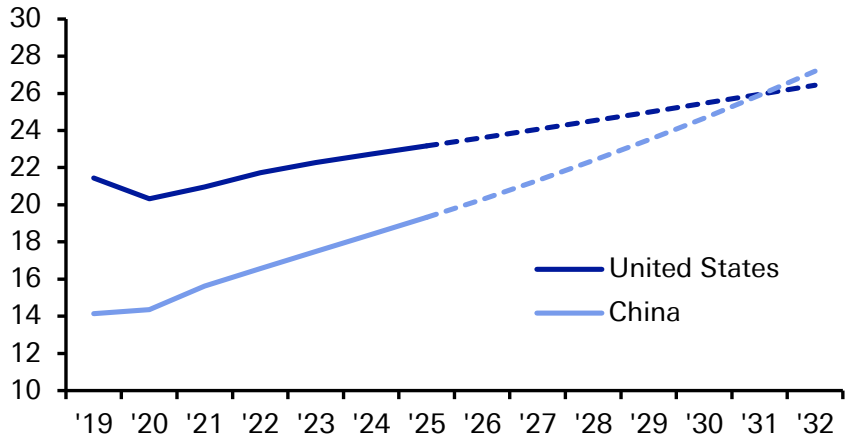
with China's Belt and Road Initiative projects.

Under a Cold War scenario, corporates aligned to countries on both sides may be encouraged to decouple themselves from the other country, while strategic corporate acquisitions could be blocked. To facilitate this, the US can continue its strategy of weaponising the dollar to force corporates onside via control of payment systems. At the same time, China will compete after rolling out its own payment system. Countries that wish to avoid US oversight will thus use it and align themselves with China.

Why relations between the US and China will likely deteriorate

Four decades after its reform and opening began, China's economy has grown to become as imposing as its geography. It is the world's second-largest in dollar terms at $14.3tn in 2019 and the largest in terms of purchasing power parity. It is the world's largest trading economy, exporting as much last year ($2.5tn) as France, Germany and Italy combined. It also has the largest trade surplus, which – at $430bn last year – is 1.5 times that of the whole Euro Area. On the demand side, household consumption in China is as large as that of Germany, France, Italy, and the Netherlands combined, and it is growing many times faster.

Figure 22: Real GDP (2019 USD, trillions)



Note: Based on DB's forecasts to 2025 and then extrapolating those growth rates beyond that point
Source : IMF, Deutsche Bank

As China grows to almost certainly become the world's biggest economy, it will likely continue with its current suite of policies. Yet some of those policies conflict with the US desire for China to fit into a global architecture of American design. As the US becomes more assertive in its desire to contain China, we would expect US leaders to increasingly move away from prior policies of accommodation. They will likely look to impose economic and financial sanctions to encourage China into the international architecture. We think China will retaliate in turn.

There is a big difference between a US/China Cold War and the one between the US and the Soviet Union several decades earlier. Most importantly, China is far more integrated into the world economy than was the USSR. Since China's accession to the WTO in December 2001, foreign capital has poured in to take advantage of the vast, cheap labour force. Cumulative inflows of foreign direct investment over the decade following WTO accession reached $1.4tn, four times the flows over the

previous decade. At the same time, China's share of world exports has quadrupled to 13 per cent since WTO accession. This has transformed not just China itself, but also the world as the large population was integrated into the global economy.

The US position

While the economic tension between the US and China has existed for some time, it came sharply into focus when the US declared China a "strategic competitor" in 2017. Indeed, President Trump had opposed 'engagement policy' long before entering politics, so it was no surprise that he adopted a more assertive posture against China than had prior US presidents.

Among others, the US administration launched its trade war with China for three reasons: China's subsidies and excess state-owned enterprise capacity in steel and aluminium that damaged key US industries, the alleged theft or forced transfer of intellectual property from US businesses and universities in contravention to China's WTO commitments, and trade practices that led to a large trade surplus with the US.

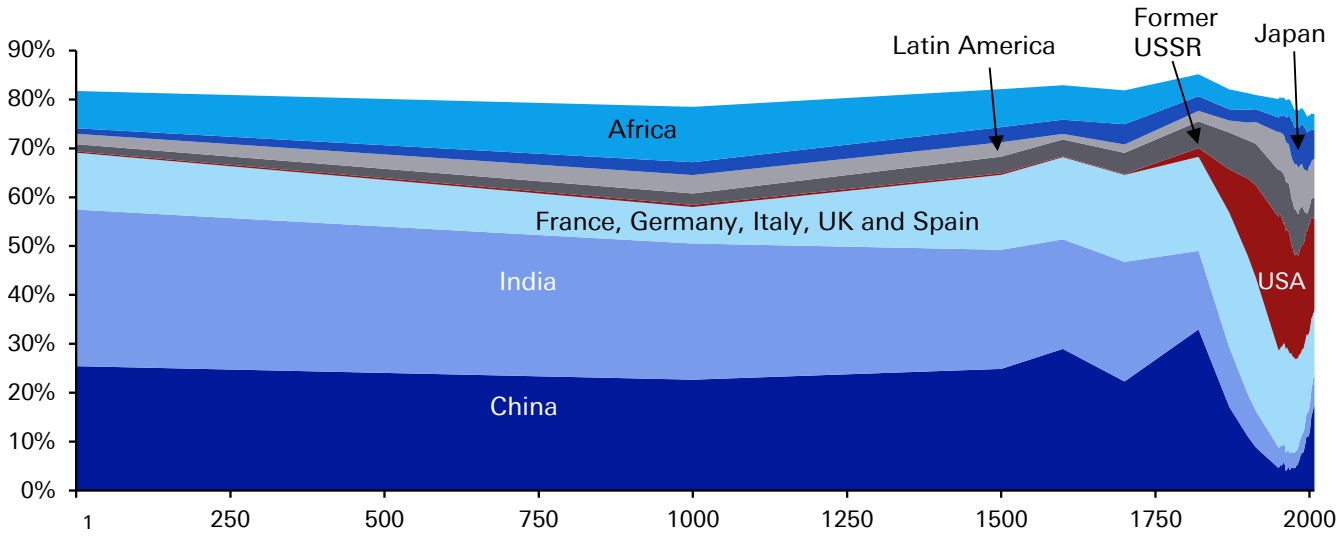
In addition to these grievances, the US has argued that China has reneged on promises for many liberalising reforms in various respects except for financial market policies. For example, restrictions on foreign investment in the financial services sector, which has really only been freed up since 2018. The US has also long had qualms about the value of the renminbi, which has appreciated very gradually, allowing China to capture an increasing share of world markets. Meanwhile, foreign firms are not allowed to provide telecommunications services in China and were, until recently, excluded from logistics services. While the comparative advantage of the West is broadly in services as compared with China's comparative advantage in manufacturing, most services activities in China have been restricted to domestic firms.

In addition to economic arguments, the US has vocally opposed some of China's activity in the South China Sea and along its borders with other countries.

The Chinese position

China sees its economic rise as part of the "Chinese dream of national rejuvenation". The history of intervention by Western countries hurt China both culturally and economically, and Chinese leaders are keen to recoup the losses experienced in the century before Mao established the modern Chinese state in 1949.

Figure 23: Global GDP Shares through history



Source : Maddison Database, Deutsche Bank

China's medium-term planning includes the 'Two Centenary goals'. The first is for China to become a "moderately prosperous" society by the time of the Communist Party's centenary in 2021. This goal has been summarised as doubling GDP between 2010 and 2020, a target likely to be narrowly missed due to the pandemic.

The second centenary observation is the 100th anniversary of the founding of the People's Republic in 2049, by which time China should be established as a "modern socialist country that is prosperous, strong, democratic, culturally advanced, and harmonious".

'National rejuvenation' also means restoration of China to its prior position as the largest economy in the world and one of the great powers. China is likely to overtake the US as having the world's largest economy in around a decade and, at the same time, China will likely seek to establish strong influence over the Asian region, though not over the US or Europe in their hemispheres.

Technology: a critical sticking point

While the US and China may eventually bridge some of their disagreements over trade and politics, a far more difficult issue is technology. As artificial intelligence becomes more important, neither side seems likely to budge from its position. Instead, we expect that each will resort to an arms race for the best AI platforms and applications. A key battleground will be semiconductors and, specifically, the software used to design them and the machinery used to make them.

From the US point of view, it has long made allegations that Chinese companies have improperly taken US intellectual property. In addition, the US has been frustrated at China's procurement policies, which excluded some foreign firms and technologies, particularly from banking, telecommunications, and other sectors. The US has excluded Huawei from its 5G rollout, arguing that Huawei has been used to support spying by China's security agencies. The US has also demanded its allies and partner countries do the same with various levels of success.

From China's point of view, it has introduced various controls to protect foreign intellectual property, even if they have not had the effect the US has demanded. The

two sides have jostled about points of patent law, and the scale of this disagreement is only likely to worsen.

A technology arms race seems inevitable. While the US is the global leader in technology, China is now close to parity in terms of research and development in terms of purchasing power parity. The Chinese priority for technology stems from the "Made in China 2025" strategy. This focusses on the technologies of the future in which the government has sought to achieve global dominance. Of course, China is not alone in this regard. Many countries have ambitious industrial policies, and the MIC2025 plan consciously follows Germany's "Industrie 4.1" program. As China has increased its technology expertise, other OECD countries have been slow to appreciate just how dependent they already are on China for existing technologies.

If disagreements over technology worsen during this decade, the effects will reverberate throughout the globe. The US and China will likely continue to build rival global technology standards – resulting in a 'Tech Wall' that leads to very little interoperability or interaction between rival internet platforms, satellite communication networks, telecom infrastructure, CPU architecture, payment systems and others. Companies and countries will either have to choose a side, or deploy two different communication and networking standards to ensure interoperability. In all, it could cost technology groups up to $3.5tn. (See DB's Apjit Walia's note here for more on the upcoming Tech Wall and the associated costs to the global economy.)

A second issue is supply chain disruption. Although Covid-19 has accelerated some corporate plans to diversify international operations, particularly if they are concentrated in a single country such as China, this is a slow process. Indeed, it could take up to ten years to transition operations to countries such as Vietnam, India, Malaysia, Indonesia, and the Philippines as many chief executives worry that these countries lack the infrastructure, skilled labour, and clustered networks of China.

The US strategy and China's likely response

No matter who wins this year's US election, they will likely pursue a policy of Chinese 'containment'. If President Trump is reelected, we expect that he will continue with tariffs and export controls. He may also enact his threatened capital controls. Although Trump's first term has seen him seek to act unilaterally, it is likely that he would eventually recognise the need to engage with allied nations if he wants them to join US policies.

If Joe Biden wins the election, he will almost certainly seek to confront China over many of the issues that President Trump has identified. However, Biden will likely seek to build an international coalition in this effort. That coalition may include, at a minimum, the 'Five Eyes' countries (US, UK, Australia, New Zealand, and Canada), Japan, and the EU.

No matter which president is in power, his playbook for engagement with China will likely follow that used during the Cold War between the US and the Soviet Union. The trade war will escalate and include more tariffs, sanctions, capital controls, blocked technology transfers and border crossings, fights over technological standards, an arms race, asset seizures, and the poaching of allies. Some suggest US export controls could hurt China more than the retaliatory measures, but export controls will not be effective for long if China begins to source competing products

from other providers.

Both sides will likely take measures to ensure their own, and block each other's, access to vital commodities and raw materials (China has a particular grasp on rare earths). That said, both sides will likely find access to the resources they need. In an extreme scenario, China could lose access to the US and EU markets. Minimal interbank cooperation would be needed to facilitate the low level of trade and investment flows that remain, and the world would be far less globalised.

Both sides will probably also scramble for position and look to create bases over strategic maritime routes. This could lead to a naval and aviation arms race in many countries in the region. As in the US/Soviet Cold War, we expect to see a continually posted bid as both sides seek to rope regional and other allies into their now closed systems. This 'cold' conflict could extend from the Western Pacific, through the Indian Ocean, to as far as Africa.

The desire to decouple will not be one-way. Indeed, China has already raised its own concerns about its dependence on the US. In particular, China wishes to diversify its export markets and reduce its reliance on exports as a growth driver. Many countries may be happy to side with China and its systems, while decoupling themselves from the requirements of the current global systems enforced by the US.

Countries and companies may be forced to choose a side

In the early days of the US-China trade conflict, European countries tried to remain neutral, as did other countries. We expect that maintaining that neutrality over the course of this decade will be difficult if not impossible.

Already, the EU is grappling with whether it should take sides on certain issues. Some inside the EU view China as interfering in 'internal' affairs. Just one example is its participation in the 17+1 meeting of Central and Eastern European countries, along with the Belt and Road Initiative projects in some EU countries. Other member states, however, are far more comfortable with Chinese engagement.

The debate runs particularly deep in Germany. For decades, the German strategy on China was dominated by the motto "Wandel durch Handel" (change through trade). Recently, however, various leaders have led a rethink on this policy. The takeover of the German technology company Kuka by Midea in 2016 was one milestone event. German politicians perceived Kuka as a key player in its Industrie 4.0 strategy. Months after Kuka, the US administration forced Germany to withdraw its approval for a Chinese takeover of the German chip-maker Aixtron, which provided chips for the Patriot system. The real pushback actually came from German industry itself. In January 2019, the Federation of German industries (BDI) published an extremely critical Strategic Position Paper.

Corporates may be stuck in the middle. Indeed, corporates in the US and Europe across several key sectors are particularly reliant on China for a material amount of revenue. With much of the developed world in a slow growth phase over the last decade, China has been a key source of corporate growth. China's place in the corporate supply chain (particularly for technology) is critical.

If Europe is drawn into the fray, the effects on its corporates will be profound. There is the risk of a shortage of electronic parts, which are partially single-sourced in China. European firms have significant on-the-ground investment in China, which

leaves them exposed.

In addition to writing off investments made in China, US and European firms will need to replenish their supply chains by investing in new capacity to replace that lost to China. This will be an expensive and time-consuming process.

While US and European firms will endure significant pain if they decouple from China, the effects of a decoupling will also ripple throughout Chinese firms. The lack of interaction with Western firms could mean Chinese firms miss out on access to Western intellectual property. Just one example is that for electric and autonomous vehicles. Furthermore, access to metals and mining products, particularly steel, iron ore, and copper could be at risk.

Finally, US, European, and Chinese firms should all anticipate that investors' ESG policies could soon be used to penalise them. For example, if a specific investor group in one country decides upon ethical policies that run contrary with those of the company in another country, they may force the company to de-couple its operations. No matter if that company is American, Chinese, or European, its management may simply have no choice but to bow to investor demands.

So after 40 years of a benign attitude towards China's return to being one of the world's great economic powerhouses, the next decade will likely see a much tenser world order as the country gets closer and closer to becoming the largest economy in the world.

A make-or-break decade for Europe?

Europe has frequently shown its skill in muddling its way through crises, and we should never underestimate the ability of EU countries to compromise on key issues. Yet, the Covid-19 pandemic has exacerbated a number of Europe's preexisting weaknesses and set up the continent up for a make-or-break decade.

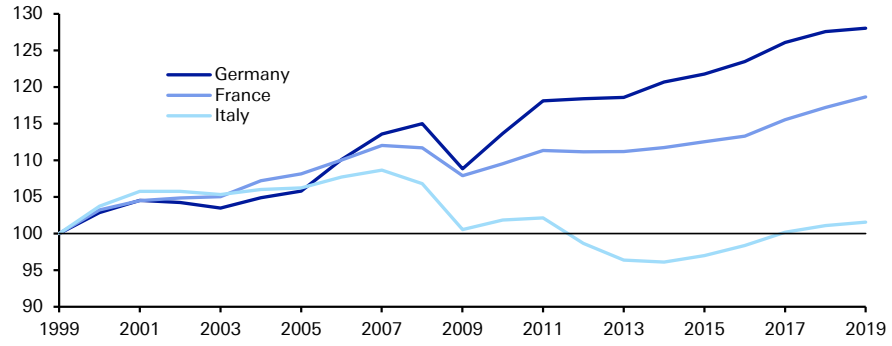
Disorder seems inevitable, yet it will not necessarily be 'bad'. Indeed, the pandemic has created fresh impetus for further integration. The question is whether Europe can build on this progress, reboot its economy and move towards a sustainable growth path, or remain mired in economic stagnation and political turmoil. The worry is that the latter scenario will lead to further fragmentation.

To examine the numerous pressure points on the continent, it's worth looking back at the last decade to highlight the turmoil that Europe has faced and how it has led to its current precarious position.

The 2010s proved to be the most tumultuous decade for the EU project since the formation of the then-EEC back in the 1950s. It started in the aftermath of the Global Financial Crash, which had already sent unemployment spiralling and living standards tumbling across the continent. As the recovery from that was underway, the sovereign debt crisis hit, further undermining the EU's cohesion between north and south, and even raising existential questions about the future of the single currency.

The economic outcomes over this period were dire, particularly for southern Europe. Just look at the divergence in real GDP per capita between Germany and Italy. Up to 2019 before the pandemic, Germany had seen growth of 28% since the formation of the Euro two decades earlier, whereas Italy had seen just 2%, with this performance gap widening noticeably after the financial crisis.

Figure 24: Real GDP per capita (1999 = 100)



Source : Eurostat, Haver Analytics, Deutsche Bank

Against this sluggish economic backdrop, populist and Eurosceptic parties proved increasingly successful across the continent, undermining the institutions of the European Union further. In Germany, the AfD entered the Bundestag for the first time in the 2017 federal elections. In France, Marine Le Pen reached the second round of the presidential election, winning more than a third of the vote. In Italy, the right-wing Lega joined with the antiestablishment Five Star Movement to form a governing coalition in 2018, though that coalition split the following year. And in Spain, the right-wing Vox party won over 15% of the vote in last year's general

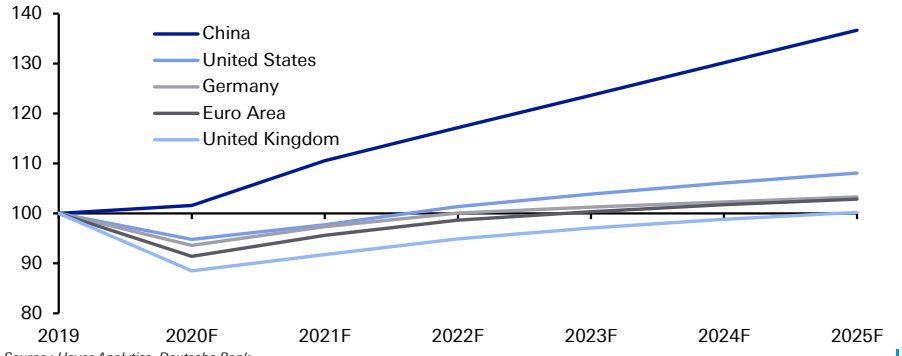
election.

As the domestic economic situation deteriorated, the external environment for Europe was becoming increasingly troublesome: the election of President Trump saw a rise in trade tensions with the US, a previously reliable ally; instability in the Middle East saw over a million refugees flee to Europe for a better life, which put a number of governments under intense pressure; and in 2016 the United Kingdom saw a small majority of voters choose to leave the EU altogether.

So even before the pandemic hit, Europe faced a number of substantial challenges. With Covid-19 exacerbating these further, the stage has been set for yet another tumultuous decade ahead.

Starting with the economy, the pandemic has worsened an already-weak situation. This year the Euro Area is set for its biggest economic contraction since its formation over two decades ago, with DB forecasting a -8.6% fall in GDP in 2020. Furthermore, the recovery is expected to be a slow one, with economic activity not expected to recover to its pre-Covid levels until early 2023. And even that forecast is based on the assumption that there won't be a notable second wave of the virus, which would hamper the recovery further. By the end of 2025, real activity should be only 2.9% above end-2019 levels, lagging behind both the US and China.

Figure 25: Real GDP (2019 = 100) Forecasts (DB)



Source : Haver Analytics, Deutsche Bank

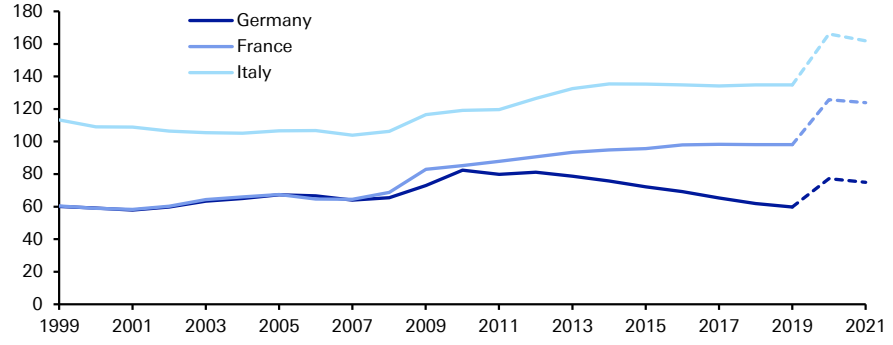
The shock is also likely to widen existing divergences between EU member states. This is partly because Italy and Spain were hit harder by the pandemic in the first place, but also because their economies are more dependent on industries such as tourism that have been hit disproportionately. Hence DB sees Italy and Spain undergoing contractions of -11.0% and -13.7%, respectively, in 2020, while Germany (which was in a better situation in the first place) experiences a smaller -6.4% decline.

To be fair, European policymakers have recognized this issue – hence the agreement for a €750bn recovery fund, which will have a joint borrowing capacity and allocate €390bn in grants and €360bn in loans to European member states, to assist them with the recovery. This is the EU's first countercyclical fiscal capacity, and fixed a major design flaw in the single currency, in that there was no EU-wide fiscal firepower to help member states cushion the effects of economic shocks. Furthermore, the proposed fiscal transfers to be allocated are partly in proportion to the fall in GDP in 2020 and 2021, and the €750bn sum is around 5.5% of EU GDP in 2019, so a significant total.

Nevertheless, this agreement has already strained the politics between member states, with the so-called "frugal four" forcing a change in the balance between grants and loans away from an original allocation of €500bn in grants and €250bn in loans to the current 390/360 split. And this recovery fund is also a temporary instrument, so it doesn't represent a US-style "Hamiltonian" moment, when the federal government assumed responsibility for state debts. In the event of a future shock, there will therefore be renewed questions as to whether a similar fund is needed once again, or whether something more permanent is necessary – a step in the right direction and one that could mark the start of a drive towards full economic integration. Make no mistake, though: without the recovery fund, and further schemes as necessary, the European project could have been and can remain in grave danger.

Meanwhile, the problem of high government debt levels in Europe has not gone away. Before the pandemic hit, the Italian debt-to-GDP ratio was more than double that of Germany's, at 135% of GDP, and is now set to soar higher still. And while Italy has still been able to finance itself and spreads have come down a long way from their highs during the sovereign debt crisis, they are still elevated when compared with pre-financial-crisis levels.

Figure 26: General Government Debt (% of GDP) including IMF forecasts



Source : Eurostat, Haver Analytics, IMF, Deutsche Bank

The legacy of Europe's accumulated debts will not only help define the direction of the continent, but is also hampering current economic performance. For example, though Italy has run consistent primary surpluses in recent years (i.e. a surplus before interest payments), its heavy debt burden means that the country is forced to spend large quantities on debt interest payments rather than other productivity-enhancing investments. In turn, this low potential growth further undermines its debt dynamics, creating a vicious circle.

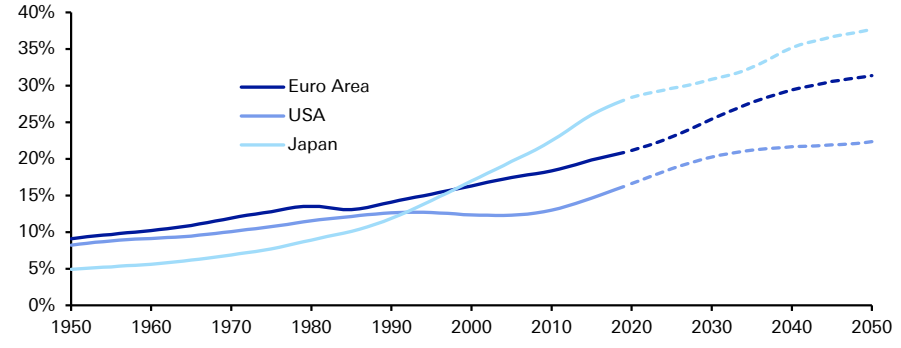
While the size of the recovery fund is significant and will have a meaningful impact on the recipient countries, it's not obvious that, in the long run, it will be consequential enough to permanently change the dynamics that led to divergence in the first place. Furthermore, with fiscal policy reluctant or unable to act effectively, monetary policy is approaching the limits of its firepower. If the equilibrium rate of interest r* continues to decline, then it is even plausible to envisage a Japanification scenario, whereby monetary policy becomes trapped in negative rates, the central bank is unable to generate sustained inflation, and the banking system slowly atrophies.

Adding to the concern about the long-run efficacy of the recovery fund is the potential for an austerity agenda to recapture the mood of the political core in Europe once the pandemic has receded. If it does, disinflation trends will be hard to fight. This could lead to adverse consequences that are similar to, but more amplified, than those we saw over the last decade. Should the EU decide to tighten its fiscal purse strings, economic and political divergence could widen despite the recovery fund. This disinflation, combined with greater political strife, would set the scene for an era of European disorder.

Over the coming decade, the continent's economic woes will be aggravated by its demographics. Specifically, Europe will experience a noticeable ageing of its population, which is likely to become an increasingly obvious issue as we move through the 2020s. Currently, the share of over-65s in the Euro Area stands at 21%, up from 16% in 1999 when the single currency was launched. But by 2030, the UN's forecasts see that share rising to 25%, before reaching 29% by 2040. For a sense of perspective, the figure of 29% by 2040 is higher than that for Japan today in 2020.

This trend towards an older population will raise the pressure on government finances, since a shrinking share of working-age citizens will need to pay the taxes that fund the pensions and healthcare of an expanding elderly population. In addition, as the elderly will comprise an increasingly large proportion of the electorate, this imbalance sets the stage for intergenerational clashes as the electoral incentives of politicians mean they increasingly focus on the interests of older citizens over the young. We have devoted a separate chapter to this theme and note that changes may be afoot here as Millennials (and younger groups) start to approach parity in electoral numbers. This will happen later in Europe than it will in the US and the UK, but the trend is still slowly moving in their direction in most of the continent. As we'll see, Italy will be very late to hit the inflection point due to greater demographic imbalance, and this could create more embedded self-interest in the status quo here than elsewhere.

Figure 27: Share of population aged 65+ with UN forecasts



Source : UN, Haver Analytics, Deutsche Bank

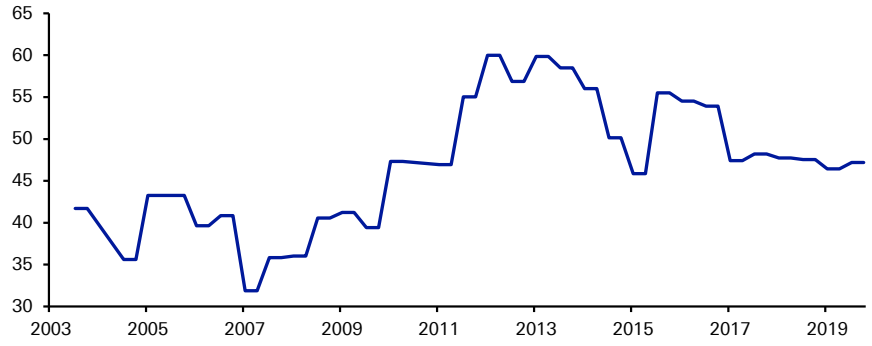
It is not simply the ageing of the population that is the problem in Europe. Just as worrisome is the shrinking size of the population. Indeed, over the coming decade overall population growth will likely turn negative, making Europe something more like Japan.

So with the coming European decade likely to see a slow recovery from Covid, unemployment remaining high, and demographic issues causing further problems

for government balance sheets, it will be no surprise to see economic turmoil once again go hand-in-hand with political turmoil. This turmoil may be exacerbated by the EU's sometimes cumbersome institutional processes. Decisions on many issues take place via qualified majority voting, whereby 55% of the EU member states representing at least 65% of the EU's population are needed to support measures. On some other topics, such as the recovery fund, complete unanimity is required.

A strained economy and cumbersome decision-making process are key ingredients for further populist successes. Youth unemployment is incredibly high in much of Europe, particularly in the south, and that is likely to be driven higher still thanks to the pandemic. Meanwhile, disenchantment at the European Union remains elevated in many countries. For instance, the EU's own Eurobarometer surveys show that almost half of Europeans say they "tend not to trust" the EU. Although that proportion has fallen from the high levels during the sovereign debt crisis, it is still well above the levels seen before the financial crisis.

Figure 28: Eurobarometer Survey: Percentage who say they tend not to trust the EU



Source : European Commisssion, Haver Analytics, Deutsche Bank

The siren call of populism is likely to be further aided by the growth of new methods of communication that bypass traditional media. Indeed, the ubiquity of social media has been critical in enabling new movements that have shaken traditional parties. In Italy, the Five Star Movement, which is the largest party in parliament, exploded in popularity despite only being founded in 2009. Meanwhile in Germany, the AfD is now the third-largest party in the Bundestag, despite only being founded in 2013.

It has not just been right-wing groups that have seized on the communication revolution and captured the hearts of disenfranchised voters. Perhaps the best example of political upheaval on the other side of politics occurred when Emmanuel Macron won the Elysee at the head of an entirely new party founded just a year earlier. Perhaps European politics in the 2020s will be defined by parties that currently don't exist or are at a fledgling stage of development.

A rapid upheaval in politics set against a precarious debt-laden economy means the coming years will not only be crucial for the future of the EU, but also filled with disorder that could see Europe go down entirely different paths. Key near-term events will be the German election in 2021, the French presidential election in 2022, and the Spanish and Italian votes that must be held by 2023. And that is before

considering the issues taking place in Eastern Europe, where the Polish and Hungarian governments have already clashed with EU institutions over the rule of law.

With an array of domestic issues, Europe risks falling behind on the world stage. Over recent decades, Europe's global influence has been continuously diminishing as its share of both the global population and the global economy have shrunk, a process that is likely to continue over the 2020s. To some extent this is an unavoidable process, as the emerging markets see living standards increasingly converge with those in the advanced economies. But the EU's diminished heft has left the US and China as the only two remaining global powers with the ability to project their influence, not least since the EU lags substantially in military terms.

With tensions escalating between the US and China, and Europe proving unable to resolve its many domestic issues, the risk is that the continent finds itself squeezed between the two great powers and merely playing a supporting role.

With Europe facing domestic political instability set against the backdrop of a highly uncertain economic future and potentially hostile external environment, there is a serious question to be asked about whether the European Union can sustain itself over the decade ahead. That question becomes more pressing given the demographic overhang that will increasingly burden the continent. Although the EU has a tradition of stumbling from crisis to crisis and doing just enough each time, the continued use of sticking plasters rather than forging durable solutions risks ending in failure. Furthermore, we haven't considered the possibility that another shock could occur in the coming decade that creates further havoc, just as the GFC did in 2008 or the Coronavirus did in 2020.

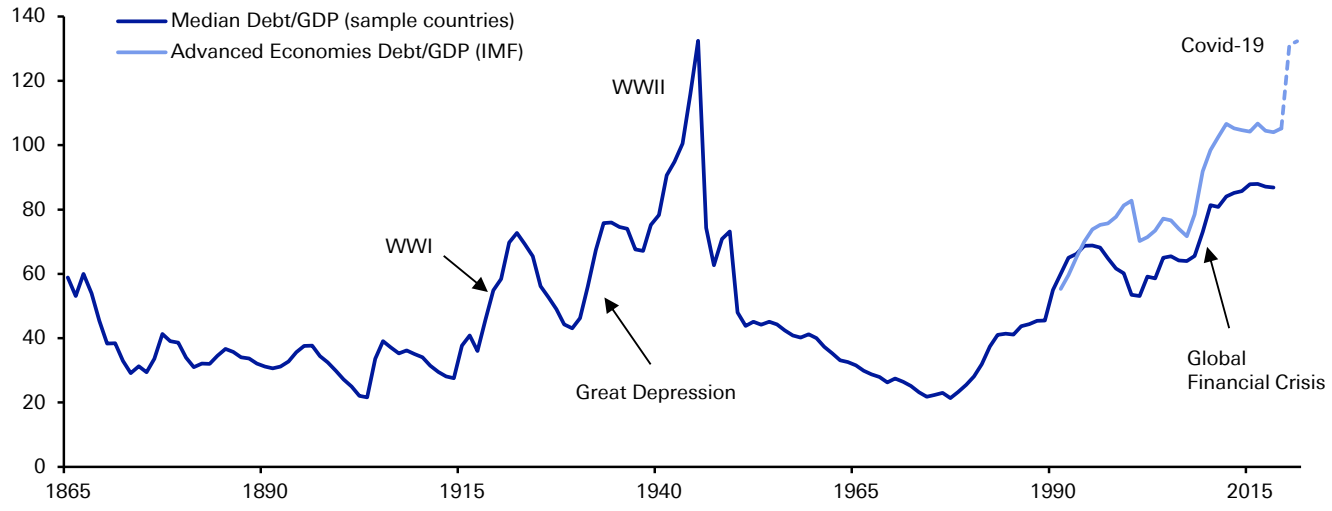
Europe will need to build on the success of the Recovery Fund and use this momentous agreement as a stepping stone towards a much more fiscally and politically integrated union to ensure its long-term survival. The muddle-through scenario seems less and less likely to be tenable in a post-Covid world where economic divergences will likely become starker and not less. It's clear we're in for a bumpy ride even if the end result is ultimately positive. Failure, though, would be an economic and social catastrophe.

Will even higher debt levels herald in an MMT world?

Last year's Long-Term Study, "The History and Future of Debt", dedicated a whole report to this subject and whilst the themes are the same, the intensity of the rise in current and future debt and scale of the likely financial repression have increased due to the Covid-19 shock. Figure 29 shows that we'll be adding around 15-20% to the debt/GDP ratios of advanced countries in 2020, with the likelihood that this climbs another 5-10% in 2021 as recovery from the virus remains relatively muted.

There is every evidence that a combination of ever-higher levels of debt and the fiat currency system is a cocktail that encourages financial shocks and crises. In such an environment of higher debt and even more money printing, it's pretty clear to us that more disorder and financial market chaos will be a regular feature of the macro/economic landscape. Yes we can run with more debt, but a high-leverage society is always likely to be more shock-prone.

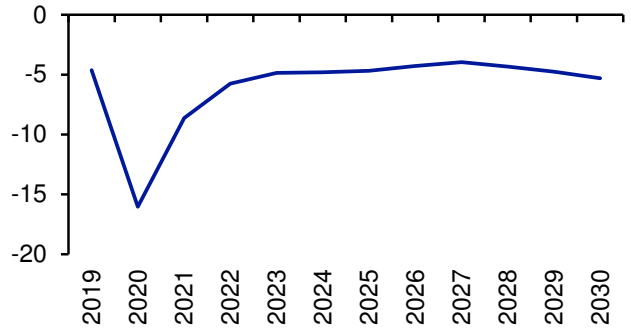
Figure 29: Historical median Debt/GDP for a sample of advanced economies, along with the IMF's forecasts for the advanced economies



Source : GFD, IMF, Deutsche Bank
Note: US, Netherlands, France, Great Britain, Italy, Australia and Sweden included from 1865, Germany from 1869, Canada from 1870, Japan from 1875, Switzerland from 1880. Germany without data 1915-24 and 1939-49, France from 1915-19, Netherlands from 1942-47

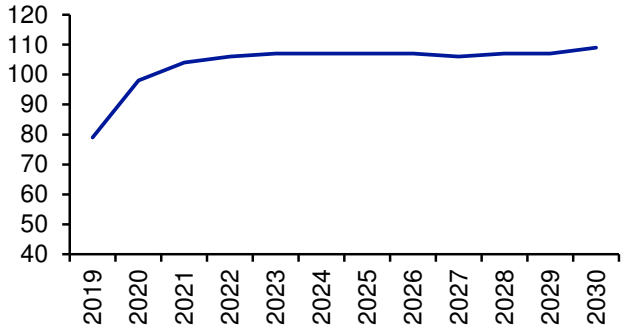
So, how much debt will countries take on? Long-term forecasts for government debt/GDP are relatively difficult to come by and highly uncertain, but both DB and the CBO in the US do make forecasts. Relative to a 2019 figure of c.80%, DB expects US government debt/GDP to be 105% in 2020, 111% in 2021 and 124% by 2030.

Figure 30: US CBO deficit forecast (% of GDP)



Source : CBO, Deutsche Bank

Figure 31: US CBO debt-to-GDP forecast (%)

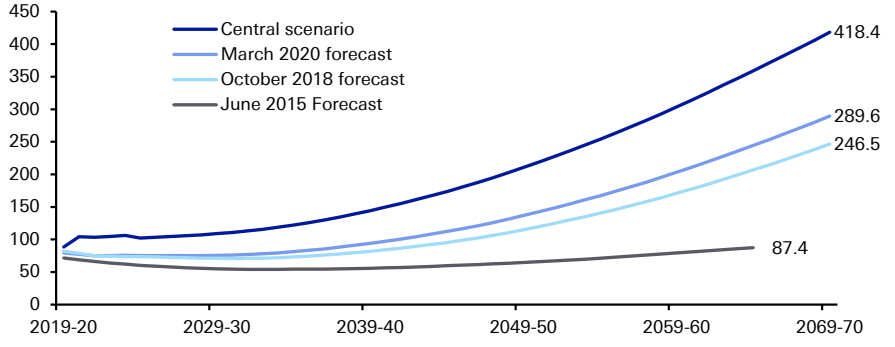


Source : CBO, Deutsche Bank

For the UK, the Office for Budget Responsibility forecasts out 50 years and although the next decade isn't where the steepest increase occurs, it's clear that the current path of public finances is completely unsustainable, and this will come increasingly into view in the years ahead even if the largest problems aren't immediate. Covid has accelerated and exaggerated this problem. The fact that the national debt is expected to double in a generation should increasingly focus the minds of politicians and voters in the decade ahead.

The OBR analysis also shows how quickly things have changed in the last five years as growth has been revised down, austerity ended and the pandemic arrived. Clearly the assumptions can change again, but it'll be difficult to impose fresh austerity on a post-pandemic world.

Figure 32: OBR long-term forecasts for UK public sector net debt



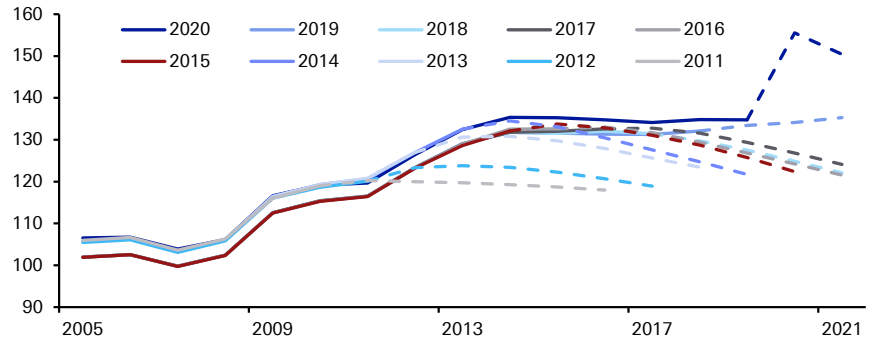
Source : OBR, Deutsche Bank

In the prior section looking at the future of Europe, we showed how the size of debt across the continent had diverged in recent years, something that the pandemic looks set to intensify.

Most forecasts for European debt tend to mean-revert to respect the rules of the Maastricht treaty once the forecasting horizon extends beyond the next couple of years. However, as the graph below shows, the IMF (and economists generally) have generally been too optimistic on Italy's debt/GDP forecasts in recent years. Over successive five-year forecasting horizon periods, they have generally assumed that debt/GDP will fall. However, in the years before Covid-19, it was at best stabilising in what were very supportive funding conditions and a growth

environment that had been improving. Then we had the Italian budget rebellion in the latter half of 2019 and now Covid-19, so the path of the last 10 years has been one of consistent underestimation of the rise. Why should we assume that forecasting will improve now?

Figure 33: Italian Gross Debt (% of GDP), successive IMF April forecasts (dotted)



Source : IMF, Deutsche Bank

A decade of tight fiscal policy is coming to an end

Prior to Covid-19, it felt we were coming to an end of a mini post-GFC era of tight fiscal and loose monetary policy. This era helped stabilise debt at high levels by ensuring that QE and ZIRP kept interest costs low and demand for fixed income high, whilst relatively tight government budgets and austerity ensured that debt didn't climb too much – an artificial holding period for government debt.

However, we thought this era was likely unsustainable as the relatively tight fiscal policy was clearly encouraging a weak and unsatisfactory growth environment – one that was encouraging populist movements around the world and also causing fissures in the European Union construct. It was only as recently as July 2019 that the EU decided not to pursue an excessive deficit procedure against Italy after the country took action to reduce its 2019 deficit.

At the other end of the European spectrum, Germany was under increasing pressure to move away from "Black Zero" type polices. In the UK, a government was elected at the end of 2019 to level up the country, respond to the symptoms behind the Brexit vote, and likely increase fiscal spending. Prior to this, President Trump had instigated large tax cuts for the US economy and created a couple of years of c.3-5% deficits. So we would argue the tight fiscal era was approaching natural limits and was likely on the turn.

Covid-19 has accelerated this and has for now placed Western-world austerity into the history books. The big question is whether governments try to reengage with tighter fiscal policy after the pandemic is behind us.

The narrative soon after the GFC was that governments had to move to repair their balance sheets as soon as possible or risk seeing a sovereign debt crisis. That Peripheral Europe had such a crisis before the ECB intervened was used by many as proof that public finances needed to be urgently put on a more sustainable path.

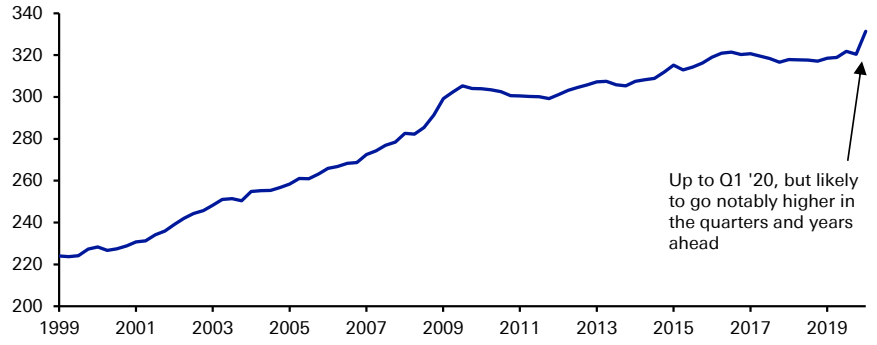
In our opinion, though, Covid-19 has likely opened up a Pandora's Box in terms of government spending. We've seen strong evidence that you can see deficits

explode without seeing sovereign yields rise, and as such we believe governments will continue to spend and central banks will increasingly facilitate this by near-continuous QE over the years ahead.

Indeed, with central banks now much more proactive with QE, we see greater temptation to run with larger deficits going forward alongside aggressive central bank policies (QE and ZIRP or NIRP). With the new public mood, which politicians will be brave enough to place renewed austerity on nurses, doctors and the other key workers that have been so admired through the pandemic? Also, for those workers furloughed and/or laid off during this crisis, are governments really going to allow them to revert to the most basic of benefits packages whilst unemployed? It feels that Covid-19 has changed everything and governments will now be politically incentivised to run much higher levels of deficits as we continue to move out of the pandemic and beyond.

This will leave public sector debt structurally higher for a long period to come, alongside business and consumer debt – both of which have been stressed by the pandemic.

Figure 34: Total global debt (% of GDP)



Source : IIF, Haver Analytics, Deutsche Bank

What we are describing above is a move towards MMT and/or helicopter money. We went through a description in last year's study on their main features, including areas where they are similar and areas where they are different. See pages 45-51 here for more on this. Given the lengthy prose on this in last year's study, we won't explain it but instead discuss how likely it is and the consequences.

At the moment we are certainly in an immediate MMT/helicopter-money world where both monetary and fiscal policy are operating at full throttle to ease the worst impact of the pandemic. Where opinion amongst economists and strategists then divides is over whether this will be a more permanent feature of our landscape.

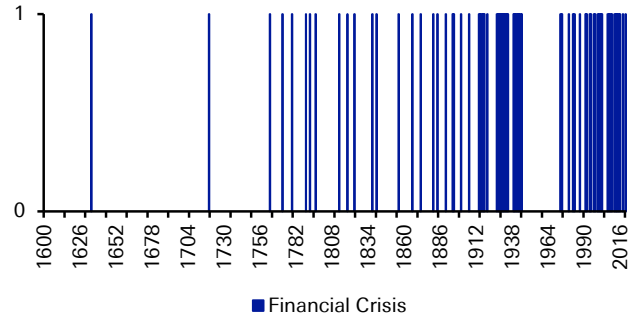
Our thoughts are that it will be and that rebuilding the economy post-Covid will be the perfect 'excuse' to spend. Remedial climate-change investment may also return to the agenda before too long and be another good excuse to print money to spend.

Does debt matter?

Over the last decade, it's been increasingly clear that economies can run with much higher levels of debt than standard debt sustainability analysis may have suggested pre-GFC. However, the fact that they can run with higher debt levels doesn't mean

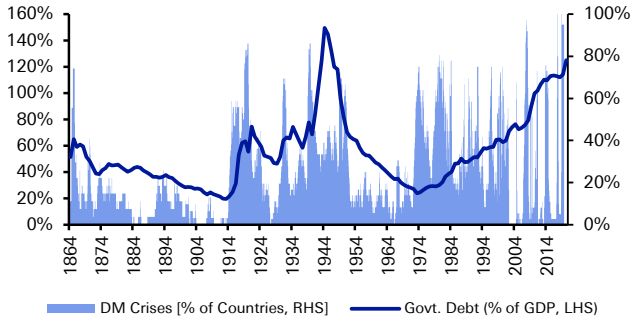
that the path will be smooth. In fact, far from it. With the high levels of debt, we think we will continue to be prone to financial crises – and it's not a coincident that we've seen two once-in-a-lifetime crises in just over a decade. Although Covid-19 is exogenous to the financial system, the severity of the shock and response was necessary given the high-leverage global economy.

Figure 35: Years with a financial crisis since 1600 (internet search)



Source : Deutsche Bank, GFD

Figure 36: Percentage of DM countries in financial stress vs. G7 government debt to GDP



Source : Deutsche Bank, GFD, Haver Analytics

As we highlighted in our 2017 Long-Term Study "The Next Financial Crisis", our modern global economic system has been increasingly prone to regular financial crises. In that report, we showed that since the Bretton Woods system collapsed in the early 1970s and we moved into an era of fiat currencies where we broke all ties to gold, financial crises have been more regular. Figure 35 shows a graph back to the year 1600 using an internet search to highlight as many financial crises as we could find through history. As can be seen, prior to the post-WWII Bretton Woods system, financial crises existed, but the frequency was not as intense as the post-Bretton Woods world. Interestingly, this period between the mid-1940s and early 1970s was the longest stretch without an observable financial crisis for 200-300 years. In addition, we've shown average G7 government debt/GDP versus the percentage of countries that have seen a financial shock** over any 12-month period (Figure 36). A similar picture emerges. [1]

Since the Fed of the late 1990s decided to help bail out the financial system following the LTCM collapse, we've had rolling state-sponsored capitalism and large moral hazard, which has changed corporate and investor behaviour in favour of leverage. This has meant that each subsequent default cycle (or mini-market cycle) has been less severe than the free market parallel universe version would have been and has left increasingly more debt in the system as a result – and has meant that the intervention necessary to protect the system has become ever greater. There is little sign that this super-cycle is anything other than ongoing.

We should stress that this shouldn't be seen as a reason not to buy financial assets, as in this era financial stress brings huge intervention and liquidity – but it should help raise awareness of the structural regime we are living through and how it relates to history.

1 ** DM shocks refer to the percentage of countries around the world that over a 12-month period see equities -15%, bonds -10%, FX -10%, inflation +10% or a sovereign default

Should we 'dis' inflation?

If there is one theme that has the ability to cause all sorts of disorder in the coming decade and beyond, it is inflation. Indeed, opinion is split on whether the developed world will experience high levels of inflation or disinflation in the near future. What seems highly likely is that given the scale of the response to the Covid-19 crisis, the numbers on both sides are so big that a return to low, stable inflation close to central bank target is less likely going forward. And no matter whether we see inflation or deflation, the turbulence caused by either scenario will ripple across the world.

We'll say it upfront – this team is in the inflationary camp. But the reality is that disinflation trends could easily win out without specific policy action. Indeed, the topic divides DB Research, and many believe it will be very difficult to generate inflation going forward.

Disinflation and the consequences

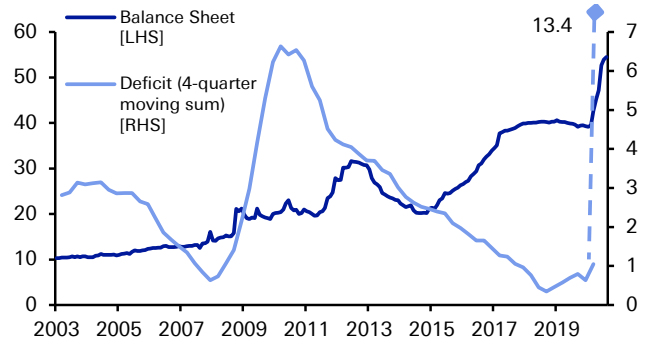
In the more normal post-pandemic times that we hope lie ahead, disinflation or deflation is most likely to occur if governments decide to prioritise a balanced budget, or if central banks step back from their extraordinary policies. Of the two, the former seems far more likely than the latter as the ideology from the 2010s may return in some or many countries. In this scenario, the Western world may resemble Japan and most of the following will likely happen: Rates and yields are floored, nominal and real GDP are likely very low, debt burdens remain very high, banking systems are under pressure, the EU project sees further stresses, QE is very high, asset holders do better than workers, inequality remains and populism is likely to continue due to frustration with low growth and perceived inequalities.

As such, disinflation would cause similar issues to the ones we've had over the last decade but probably more intense given the fragile political situation prior to the pandemic. Could Europe really prosper in an era where Germany again tightened fiscal purses? Would such a scenario not cause the German/Italian economic and political divergence to widen again, notwithstanding the progress made on the Recovery Fund? As a minimum this fund would need to be the basis for a more substantial and permanent move towards fiscal union to ensure that performance divergence doesn't again create fresh financial and political crises. In short, disinflation would likely bring disorder in economics and politics given our starting point.

Inflation

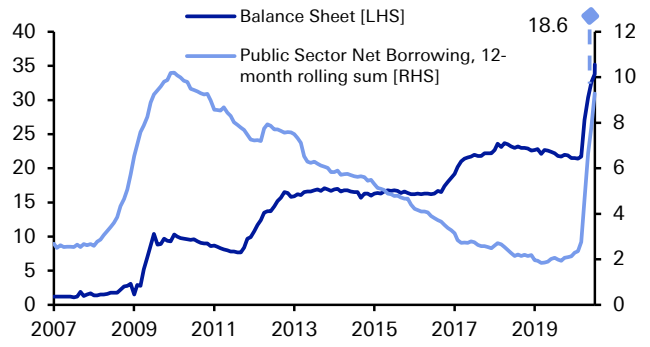
The main reason we didn't witness much inflation after the GFC is that fiscal policy started to retrench soon after the recovery was under way as economic orthodoxy and fears of sovereign defaults focused the minds of policymakers. As such, even though monetary policy remained extremely loose, in what was a quasi-liquidity trap, the economy struggled to create enough activity to generate inflation (other than in many asset prices), especially in an era when globalisation and demographics were still around their peak disinflationary influence on the global economy.

Figure 37: ECB Balance Sheet and Euro Area Budget Deficit (% of GDP) with '20 forecast



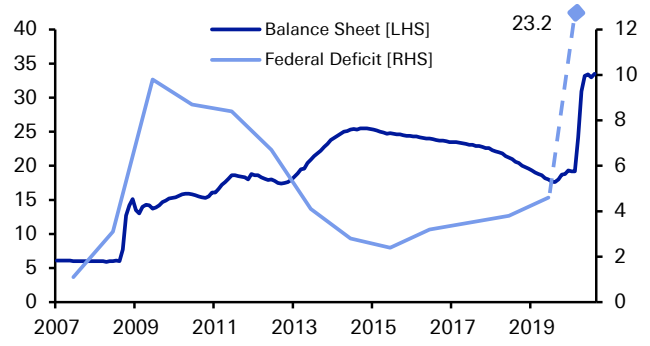
Source : Deutsche Bank, ECB, Haver Analytics, Bloomberg Finance LP

Figure 38: Bank of England Balance sheet and UK Budget Deficit (% of GDP) with '20 forecast



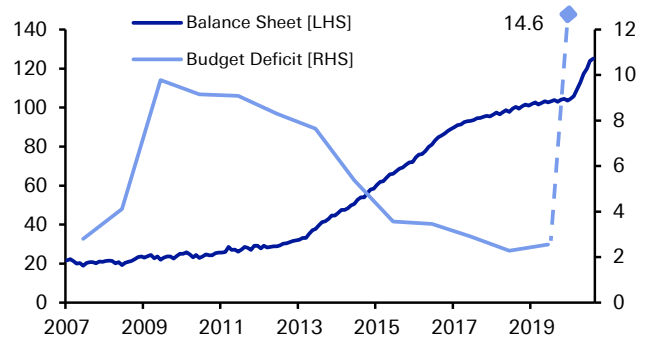
Source : Deutsche Bank, ONS, Haver Analytics, Bloomberg Finance LP

Figure 39: Federal Reserve Balance Sheet and US Budget Deficit (% of GDP) with '20 forecast



Source : Deutsche Bank, OMB, Haver Analytics, Bloomberg Finance LP

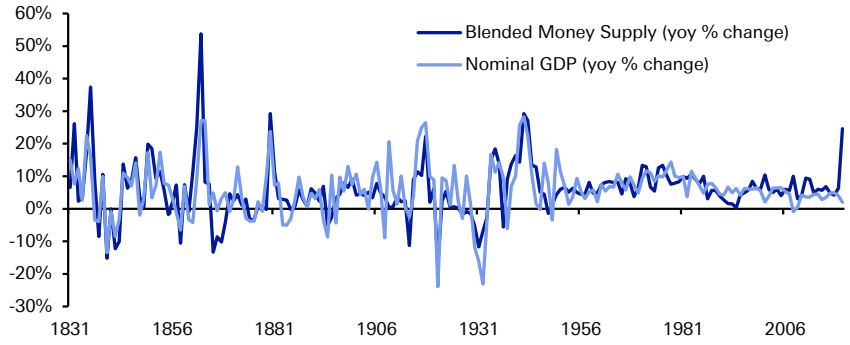
Figure 40: Bank of Japan Balance Sheet and Japan Budget Deficit (% of GDP) with '20 forecast



Source : Deutsche Bank, Bloomberg Finance LP

To ignite inflation, we need to see a permanent shift in the policy stance. Even though Covid is clearly an extreme event, so far there are signs that this policy shift has happened in a much more dramatic manner than that seen after the GFC and will perhaps linger for much longer. Figure 41 shows US money supply growth and nominal GDP over the last two centuries, and at around 25% YoY growth is at the highest levels post war. There's a decent correlation through history between the annual change in the money supply and nominal GDP growth, as would be implied by the PQ = MV equation/identity. As the chart shows, this is only the 10th time that YoY money supply growth has gone above 20% in the US. On all previous occasions nominal GDP soon moved comfortably into double digits – mostly through inflation.

Figure 41: US money supply and nominal GDP growth



Note: We've tried to use the broad definition of the money supply available. This means it's a blend of currency in circulation (1831), M1 (1930-1948) and M2 (1949-current). The Fed discontinued M3 in 2006 so we did not blend that in historically.
Source : GFD, Deutsche Bank

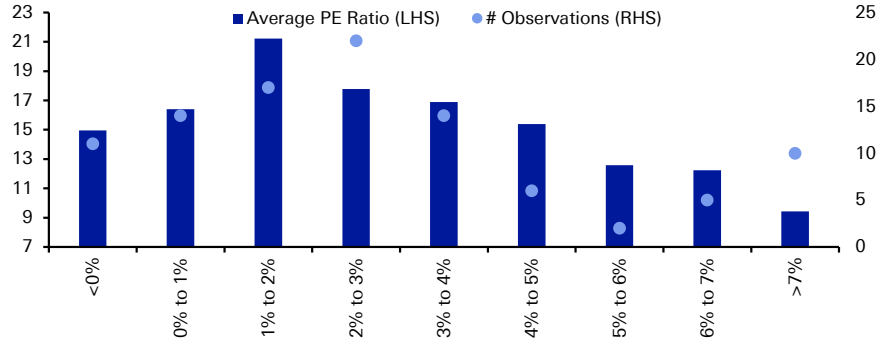
The relationship between money supply and GDP growth has weakened over the last few decades, as the graph shows, but the broad correlation has remained, and money supply growth averaged 6% from 1831 to 2019, a period where nominal GDP growth averaged 6% as well. So the two have been in the same ballpark. The current 25% YoY increase is off the charts relative to post-WWII history and beyond anything seen in even the 1970s.

In the short term the authorities will struggle to continue with policies that keep money supply growth as elevated as it is currently around the globe, but we expect them to more consistently promote such policies, moving us into a new regime of combined fiscal and monetary stimulus. This will certainly have a more profound impact on money supply than the policies of the immediate recent decades.

Generally the above can be summed up as moving from a world of financial asset QE to economy-wide QE – money printing that goes more directly to the wider economy rather than sitting in financial assets.

In terms of asset prices, its fairly intuitive as to what happens to bonds in either the inflation or deflation scenario. For equities, they generally like low but positive, stable inflation as Figure 42 shows. That said, the developed world has not experienced periods of high inflation in the era of large technology companies that dominate many equity indices. As prolonged periods of inflation have significantly different impacts on companies with high and low capital requirements, any move to higher or lower inflation will likely bring disruption and bifurcation to financial markets.

Figure 42: US PE ratio since 1920 by different inflation buckets... valuations generally higher in periods of low, stable and close to central bank targeted levels of inflation



Source : GFD, Deutsche Bank

Other potential inflationary shifts

As globalisation trends reverse and the shocks of the pandemic focus minds, it's likely we will move more towards a "just-in-case" more local supply chain environment from the "just-in-time" global experience of recent years. This will likely increase costs relative to the past. Political encouragement will likely enhance this trend (e.g. Huawei) and emphasise a more domestic focus after years of an internationalist one (e.g. Trump and Brexit).

Also, as we discussed in the previous section, the political imperative to rebalance economies and level up the inequality divide now seems to cross the political spectrum. Both left- and right-leaning parties are embracing the idea of more spending on the economy and on leveling up.

Finally, in the background, we have now seen working-age populations peak across all the important economic areas of the world; combine this with deglobalisation, and the prospects for the lower-paid parts of populations will be relatively improved going forward in more normal economic times. The reduced supply of labour, in particular cheap overseas labour, should slowly start to work in favour of the lower half of workers on the income scale. However, normal times may take a while to return after the pandemic, and labour may initially continue to be cyclically depressed without aggressive government action. Given the precedent set in this crisis and how much it's been relied upon, we expect government support in the economy to continue to be relatively substantial while the impact of Covid stays with us.

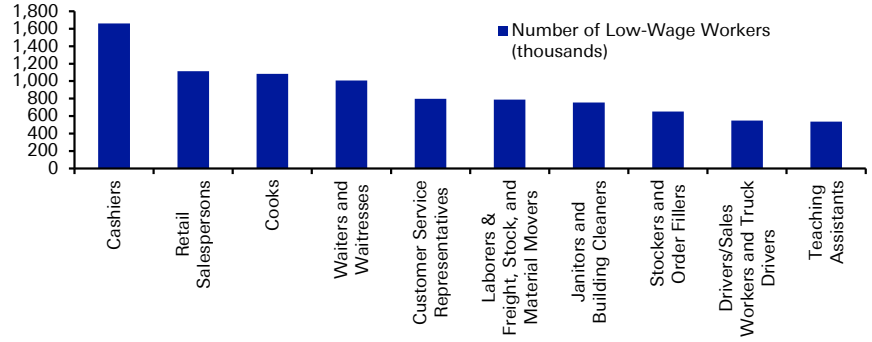
Overall, the Covid shock will make it much more difficult for authorities to control inflation at their target levels. The numbers are simply too big in both directions. The disinflation impact is obvious, especially in the short term, but in theory the policy response can continue to be a game changer for higher inflation going forward. Either way, we expect a period ahead where inflation spends more time away from target for longer. We think inflation will dominate as the decade progresses, but both outcomes will bring disorder relative to the stability of the globalisation era.

Inequality – getting worse before it gets better

Prior to the pandemic, it felt like the political direction of travel was towards a leveling up of society over the next several years. Ultimately, policy post-Covid should encourage this, but it is possible that things will deteriorate in the short term. If so, that will exacerbate the world's current problems with inequality and set the stage for further political, economic, and social disorder.

The situation is complicated as so far government furlough schemes have been very supportive for those on low incomes. However, this bottom income group is likely to include those whose jobs are most at risk while social distancing remains in place. Figure 43 showing the top 10 occupations among low-wage US workers highlights the problem. Many of these jobs will be difficult in a socially distancing world and thus continue to be vulnerable in the immediate future.

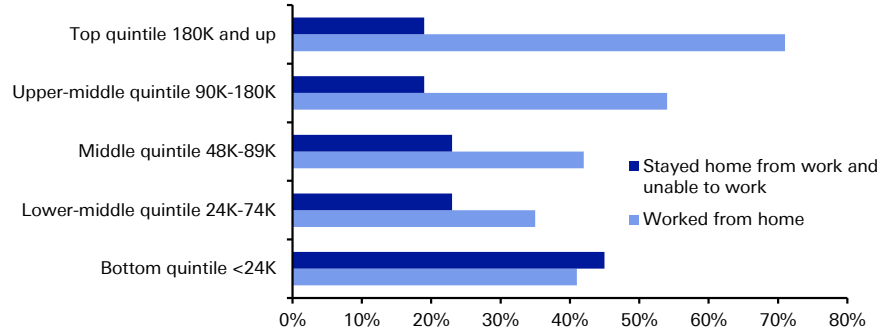
Figure 43: Top 10 Occupations Among Low-Wage Workers, 2018



Note: Low-Wage Workers defined as those in bottom quintile of people who earned at least $1000 in past year and worked at least 20 hours in a typical week when working.
Source : KFF analysis of 2018 American Community Survey, 1-Year Estimates, Deutsche Bank

At the other end of the spectrum Figure 44 shows how much easier it has been for those on the highest incomes to work from home and therefore arguably be less at risk in terms of immediate job security.

Figure 44: Working from home by income group in the United States



Note: Sample of 8572 randomly selected adults from the Gallup Panel, interviewed over the phone from March 16 to March 22
Source : Reeves, Richard V. and Jonathan Rothwell, "Class and COVID: How the less affluent face double risks," Brookings Institution March 2020 , Deutsche Bank Research

So while governments around the world may plug the income gap for the lower paid in the short term, this group may be most at risk for any structural changes to the

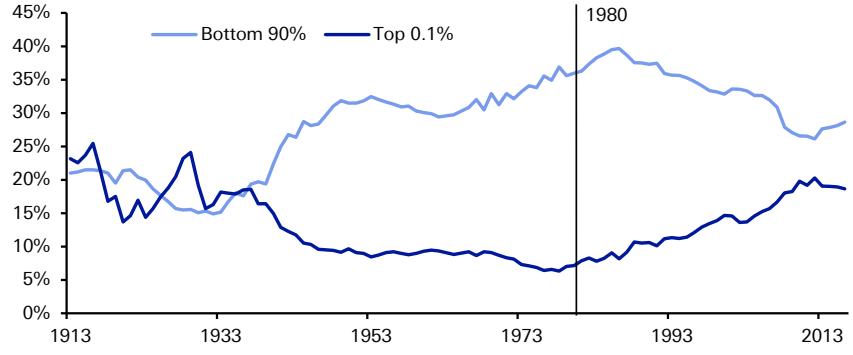
economy in the immediate and medium-term post-Covid landscape. Thus, inequality could easily initially increase.

In the short term, the higher-paid office-based workers are benefitting from work-from-home (WFH) abilities. After six months of such activity, it feels that there is a permanence to some element of the WFH movement. Such a huge shift might actually reduce inequality longer term. The more office work moves towards a WFH environment, the more such employment becomes competitive with a wider geographical pool of talent available. Big city workers commanding higher salaries will have to increasingly prove that they have skills that are superior to those in a global WFH landscape. Some outsourcing within and outside countries is likely over time. By contrast, a large number of blue collar workers have already been through such themes within the globalisation era and may find that a reduction of globalsation, and the fact that their jobs require a physical presence at a particular location, means their employment prospects are less open to disruption once post-Covid normality returns.

This thought process is still evolving in our minds, and it's very difficult to analyse without firm evidence, but it could be a major theme in the years ahead. It will also have major implications for cities, transport, residential and commercial property, workers and many ancillary sectors and general activities we've taken for granted over the last several decades. Big/mega cities have been major winners in the globalisation era. Will this trend reverse post Covid? If it does, this will have a major disorderly impact on society as we currently know it.

Back to inequality: in the US, Figure 45 shows it is already at extreme levels. Interestingly, inequality began to widen at the start of what we think is the current era, around 1980.

Figure 45: US net personal wealth shares



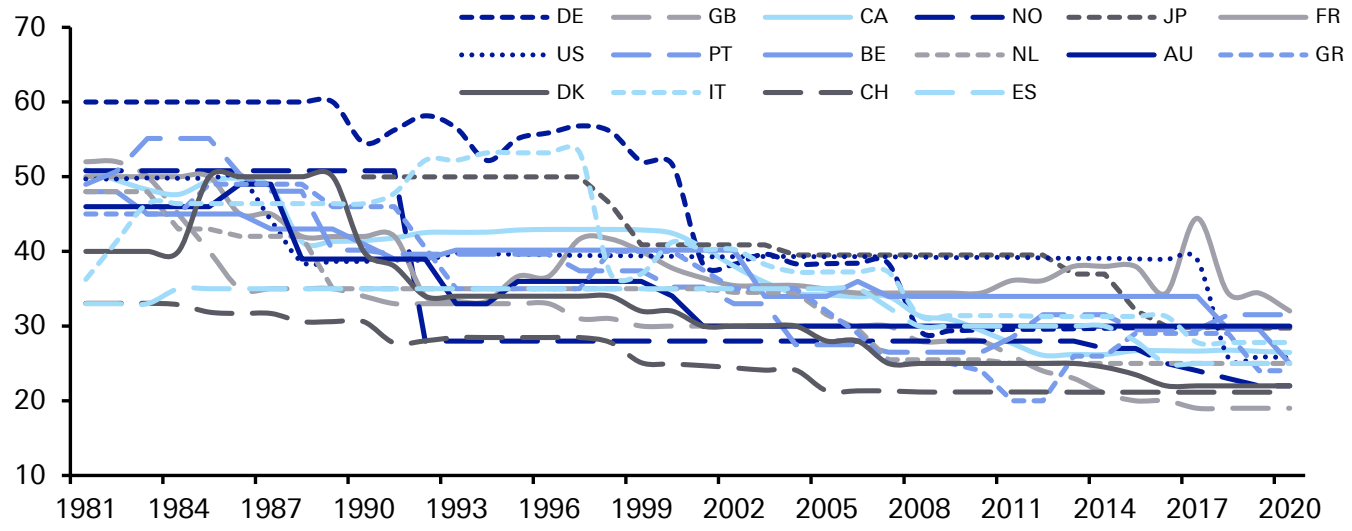
Source : World Inequality Database, Deutsche Bank

So this could get worse before it improves, but it's already reached a point where politicians are more united than ever in trying to tackle the issue. The low-paid suffering more in the immediate post-Covid landscape and the wealthier being better protected will only create more inequality tensions and the need for politicians to react. We expect pressure for taxes to go up after the pandemic, especially for the highest-paid and the most powerful companies.

Corporates in the cross hairs?

There is little doubt that the era since the early 1980s has been very favourable for corporates. Globalisation has helped them in many ways – cheap labour, access to a wider pool of consumers and a competitive tax environment where countries have conducted a tax arms race to encourage domestic investment and jobs. Figure 46 shows statutory tax rates from around the world to highlight the continuous downward trend since 1980.

Figure 46: Statutory Corporate Income Tax Rates (%)

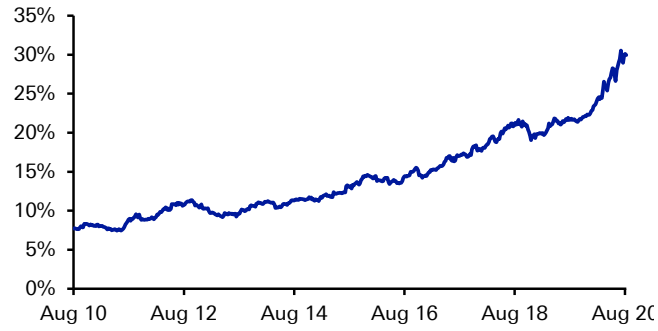


Source : OECD, Deutsche Bank. Legend ordered high to low for initial 1980 level.

In many ways, the falling corporate tax rate is the ultimate expression of inequality, as it's been a huge boost for capital over labour. As we try to pay for the cost of the pandemic and de-globalisation reduces the risk of companies moving jurisdiction, the likelihood is that low corporate tax rates will come under increasing scrutiny.

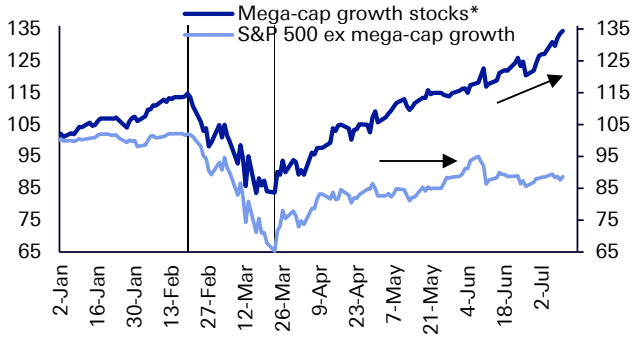
On a related theme, one of the largest inequalities in financial markets and the wider economy is that of the large US mega-cap growth stocks. These 10 growth stocks, which are largely tech based, have seen their collective market value increase from under $1tn in 2010 to over $8.5tn today. That compares with the value of the S&P 500 excluding these stocks, which has roughly doubled over the same time period. As a result, the 10 large growth stocks have seen their prominence in the S&P 500 more than triple to over 30 per cent today.

Figure 47: Proportion of S&P 500 contributed by the top-ten mega-cap growth stocks *



** Note, Facebook listed its stock in 2012*
Source : Factset, Deutsche Bank

Figure 48: Mega-cap growth stocks have outperformed the rest of the S&P 500 lately



**MSFT, AAPL, AMZN, GOOGL, FB, V, MA, NVDA, NFLX, ADBE*
Source : Bloomberg Finance LP, DB Asset Allocation

These astonishing technology valuations could go one of two ways, both of which will bring large disruption. On one hand, these valuations could be proved correct. That will mean we are close to major technological advancements and a very different way of life. This will impact all facets of life, business, and finance. Alternatively, we run the risk of a repeat of 2000, where a bubble burst even though much of the technology survived and progressively became integrated into our lives in a more normal evolutionary manner. A bubble bursting would have major financial market consequences for a period of time but be less revolutionary. The answer is perhaps a combination of both – rapid technological change that is both positive and disruptive but with stark winners and losers in both the technology sector and the wider global economy.

In the near term the pandemic has increased inequalities further. For example, it is fairly clear that consumers across the income spectrum will likely have collectively increased purchases from the likes of Amazon since Covid-19 arrived, thus depriving other retailers (mostly physical) of revenue that they may never get back, especially if online sales structurally shift up post pandemic. Indeed, our own flash poll as part of our Chart of the Day series found that respondents increased their average Amazon purchases from 5.3 per month pre-pandemic to 9.6 during the outbreak. In the future as well, it's still expected to be at 7.7, so around 55% of the increase is expected to be permanent.

Due to their size and power, the large growth stocks are attracting the glare of politicians and regulators across the globe. Pressure is building for a digital tax and/or a break up to dilute their market share. In particular, a globally coordinated effort is under way, led by the OECD. It plans to reset the global corporate tax system such that companies will have to pay based on where they have activities, and minimum tax rates will apply. In effect, this will cut the incentive for companies to base their headquarters in low-tax jurisdictions. The US, however, is opposed to such a digital tax, which would have a big effect on US companies. With global tax forces pushing in one direction and the US opposing them, yet acting on competition concerns, the stage looks set for a reckoning for mega-cap growth stocks. Given their ubiquity throughout the fabric of life around the world, it seems likely that a sudden bout of disorder could shake not only companies and stock markets but also how we live our lives.

The intergenerational divide to end this decade?

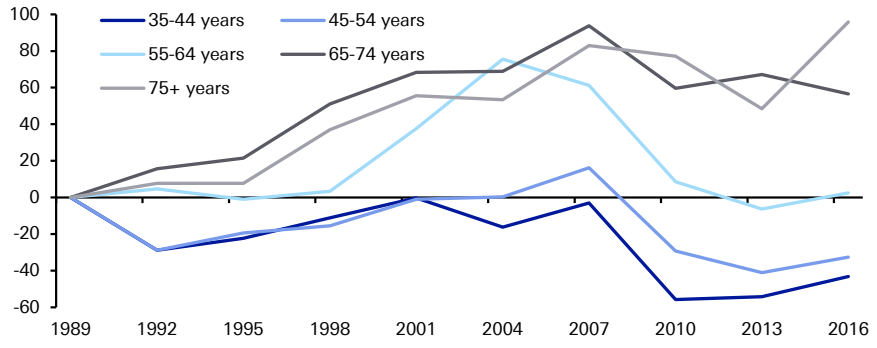
Inequality is a multifaceted area, and one sub-area of disorder to emerge out of it could well be the intergenerational divide. This has been widening in recent years and looks set to be even more of an issue in the immediate future.

For now the generational divide is at relatively extreme levels. Those who've graduated into the labour market over the last decade have already experienced the twin shocks of the Global Financial Crisis and now the Coronavirus pandemic – the two worst economic shocks since the Great Depression in the 1930s. Young people have therefore lost out economically relative to their predecessors and are behind previous generations on issues from home ownership to student debt levels. Meanwhile, there is an increasing divide on other issues, for example in how young people have been among the most forceful in calling for action on climate change. And this is before we consider how young people will inherit the large national debt burdens that have been accumulated, as we discussed earlier.

These age divides have manifested themselves increasingly in political preferences, with more and more elections around the world taking place along generational lines.

We think this intergenerational conflict will likely come to a head over the next decade. Ageing populations across the West are exacerbating many of these existing trends. High house prices and lagging income growth for Millennials and Generation Z in a number of countries continue to create anger and resentment. And the young have every right to be aggrieved. Figure 49 shows that in the US, real median net worth by age of head (of household) has diverged markedly since the 1980s.

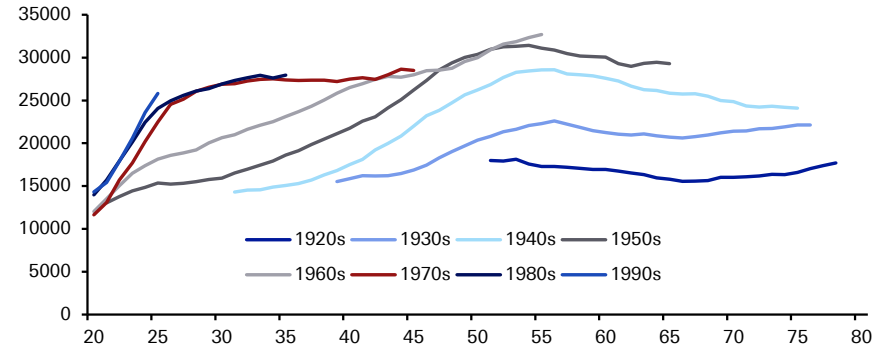
Figure 49: Percent change in US real median family net worth by age of head



Source : FRB Survey of Consumer Finances, Haver Analytics , Deutsche Bank

In the UK, the median household incomes of those born in the 1980s and 1990s aren't doing much better than those born in the 1970s at a similar age. That's a big difference from previous cohorts, where each tended to be noticeably better off at a given age than its predecessor.

Figure 50: UK median-equivalised disposable income for each decade of birth by age of household reference person (pounds)

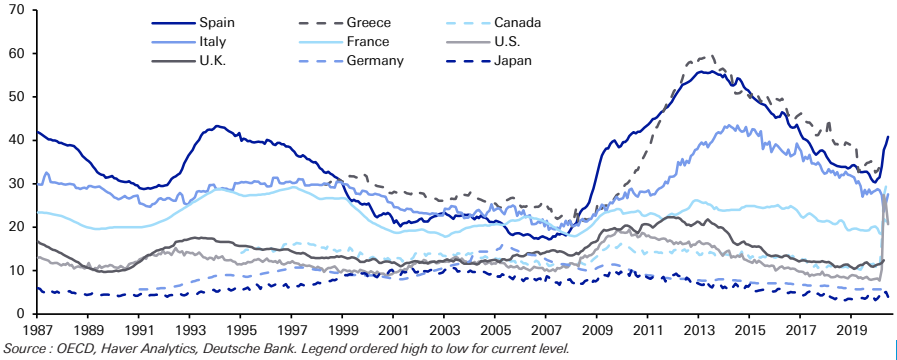


Source : ONS, Deutsche Bank

Meanwhile, thanks to the GFC and the Covid shock, youth unemployment has already spiked up once over the last decade and looks likely to do so again, especially relative to the rest of the population.

After the GFC and the subsequent sovereign debt crisis, youth unemployment peaked above 25% in France and above 50% in Spain and Greece. In the US and UK, it hit just below and just above 20%, respectively. Though these rates fell back in the following years, the impact of the Coronavirus pandemic has thrown away this progress, and young people have once again found their career prospects harmed by circumstances out of their control. Indeed, in America, the ranks of the jobless youths are greater now than they were at their peak after the financial crisis.

Figure 51: Youth unemployment rate (Number of unemployed 15-24 year-olds expressed as a percentage of the youth labour force)



Source : OECD, Haver Analytics, Deutsche Bank. Legend ordered high to low for current level.

This legacy is likely to be a long-lasting one, even as the economy returns to growth. The evidence shows that for those who graduate in a recession, as many college and university graduates will be doing right now, not only is it harder to get a job initially, but wages suffer for years afterwards as well. Intuitively, this is because young people will be far less picky when it comes to accepting job offers and be more likely to accept a lower-paying role than they might have done in a stronger labour market.

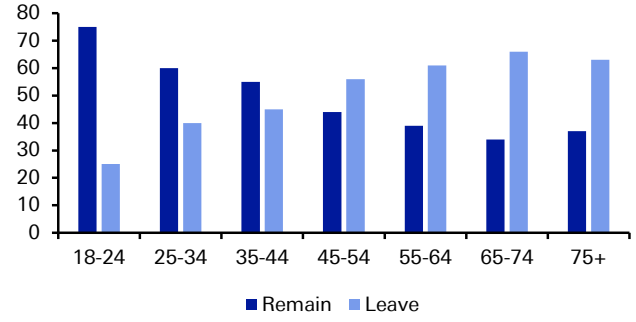
So young people today have had the unfortunate luck to have experienced the two largest economic crises since the Great Depression. It is clear that young people today stand some distance from where previous generations were at the same age.

In general terms, today's young are finding themselves priced out of the housing market, living with their parents for longer, and having to defer important life stages such as marriage and children. It is little wonder that many feel as though they've lost out relative to previous generations at the same point.

More recently, the generational divide has manifested itself in political preferences, with the young generally on the losing side, especially in binary referendums or two-party controlled systems. Although it has long been the case that young people have tended to lean leftward, this divide along age lines has become increasingly prevalent in recent years.

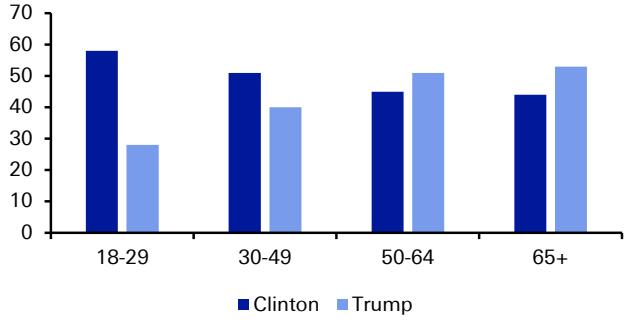
Just look at two of the biggest political decisions on either side of the Atlantic, the Brexit referendum and the election of Donald Trump. Both saw such a divide along age lines, to the point that a large majority of young people faced an outcome they hadn't voted for. The graphs show that the millennial generation (around 40 today) were the pivot to whether you were more or less likely to vote for Brexit or Trump.

Figure 52: Brexit Referendum Vote by Age



Source : Ipsos Mori, Deutsche Bank

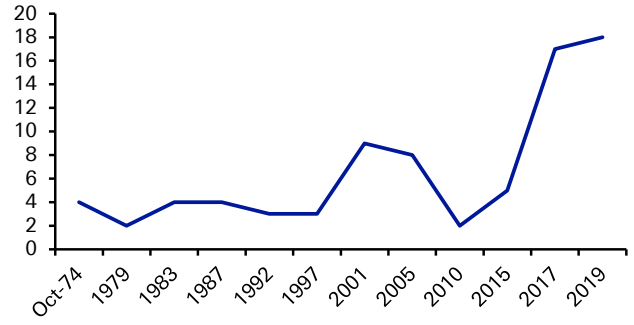
Figure 53: US 2016 Presidential Election Vote by Age



Source : "For Most Trump Voters, 'Very Warm' Feelings for Him Endured. Also: A detailed look at the 2016 electorate, based on voter records." Pew Research Center, Washington, D.C., August 9 2018, https://www.people-press.org/2018/08/09/an-examination-of-the-2016-electorate-based-on-validated-voters/

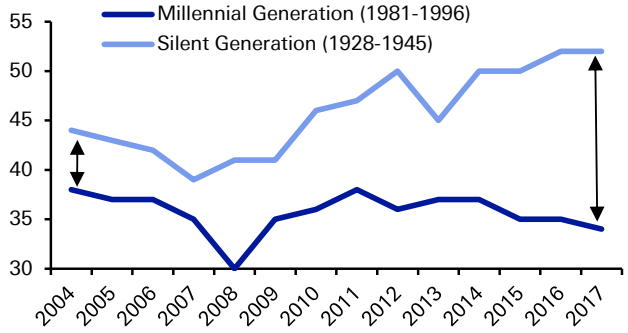
Of course, democracy always has a losing side. Yet it is a newer phenomenon that entire generations would conceive of themselves as the losers, and there is decisive evidence that this has widened over time. For example, look at the 25-34 year-old group in the UK and compare its support for the Conservative Party with the nationwide level. We've seen this in the US as well. The proportion of voters who identify as Republican or Republican-leaning has notably widened by generation over the last decade.

Figure 54: Percentage Point Gap between Conservative support among 25-34 year olds and among all voters, Great Britain



Source : Ipsos Mori, Deutsche Bank

Figure 55: Percentage of registered voters who are/lean Republican



Source : Pew Research Center Party Identification Trends, 1992-2017, Deutsche Bank

There is evidence that the backlash has started even if the Millennials haven't quite had the weight of numbers. In the last couple of UK elections, the strongest support for the opposition Labour Party has been from younger voters, supporting a manifesto that included measures directly targeted at them, such as the abolition of tuition fees, or preventing rents from rising by more than inflation. Indeed, despite their defeat in the December 2019 general election – where the elder generations' support of Brexit held sway – they did unexpectedly well back in the 2017 contest, winning 40% of the vote. Similarly in the US, Bernie Sanders, a self-described democratic socialist, was propelled in part by enthusiasm among younger voters towards his left-wing policies, and in both 2016 and 2020 he was the runner-up for the Democratic presidential nomination and was a favourite for a period late in the race in the latter bid.

This isn't just a US or UK phenomenon. In continental Europe, the most popular candidate in France's 2017 presidential election among 18-24 year olds was neither President Macron nor Marine Le Pen, but the left-wing Jean-Luc Mélenchon. In Ireland's election earlier this year, Sinn Fein received the most first-preference votes, partly because of discontent at the lack of affordable housing, thanks to strong support from younger voters. Again, getting over the line has been tough in most places as their demographic doesn't have a majority – but returning to the French election of 2017, a small % swing in the first round easily could have led to the second-round run-off being between two extreme candidates: Le Pen and Mélenchon.

Looking forward, if this younger generation is unable to achieve its economic aspirations – particularly now, given the effects of the pandemic – why should its views on these economic issues change as the members age, as many assume? Indeed, this young demographic could soon mobilise itself into an electoral majority.

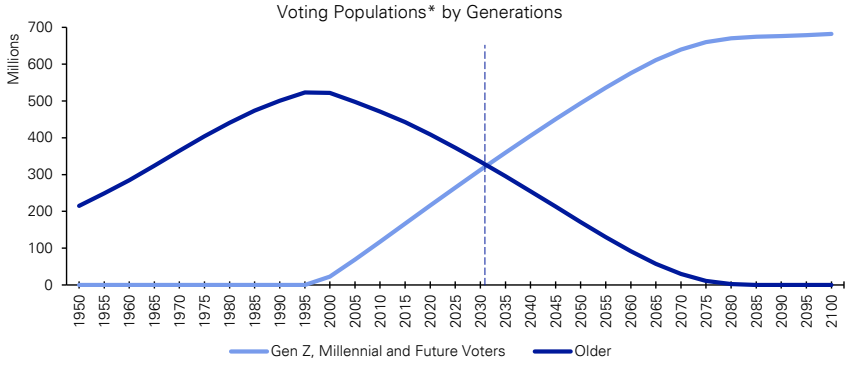
A potential disruptive reversal in power

The general assumption is that the intergenerational divide will worsen as the population ages and that this group will ensure that the self-interest of the status quo continues. However, this misses the key point that the age where the intergenerational divide begins is not static. It is likely that this age will increase over time as the average age of those left behind will continue to increase as a gap has opened up in income and wealth that is very hard to bridge naturally. As such, at

some point the younger left-behind generation will exceed those that have benefited from the favourable financial conditions that have been cemented in successive recent elections. When this happens, the possibility of seismic change in policy at elections becomes more likely. We think that over the next decade, the left-behind younger population will become an increasingly powerful electoral force, especially if it continues to be left behind due to the impact of the pandemic.

Figure 56 looks at the Millennial, Generation Z and younger cohorts relative to those born prior to the Millennials in G7 countries on an unweighted aggregated population basis. We have only included those of a voting age in each year past and future. Given the UN data base works in five-year buckets, we've assumed those aged in the middle of the 15-20 year-old bucket as being eligible to vote.

Figure 56: Millennials, Generation Z and younger cohorts will have nearly as many voters as those in older generations in the G7 by the end of this decade

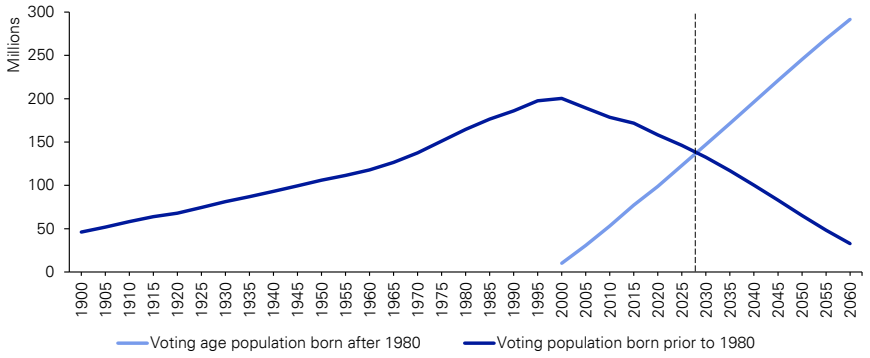


Source : United Nations, Haver, Deutsche Bank
**Using midpoint of 15-20 age range to proxy voting age*

The generations prior to the Millennials have held the upper hand, and by a sizeable majority, in recent decades. As recently as 2005 the elder group held a 497,000 vs 69,000 electoral advantage in G7 countries. By 2015 (around the time of Brexit and Trump votes) this was a still strong 442,000 vs. 167,000 advantage. However, as we approach 2030, this gap will narrow towards zero, and after that all those born after 1980 will start to dominate elections.

Assuming there won't be a large number of Millennials that find economic life much more economically favourable as they age, this could be a turning point for society and start to change election results and thus move policy. In the US, where we can use the census to get even more granularity, 2020 looks set to be the last election where the Millennials and younger have a distinct disadvantage. The Census compilers have slightly more aggressive estimates than the UN and believe that by around 2028 they will reach voting parity in terms of numbers. It will be relatively close in 2024. For context in 2016, the advantage was 156,000 voters to 92,000 voters in favour of the elder group.

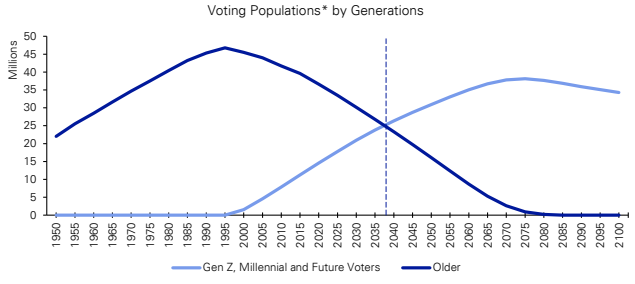
Figure 57:Millennials and younger cohorts will outnumber their older counterparts in the latter half of this decade



Source :US Census Bureau, Deutsche Bank

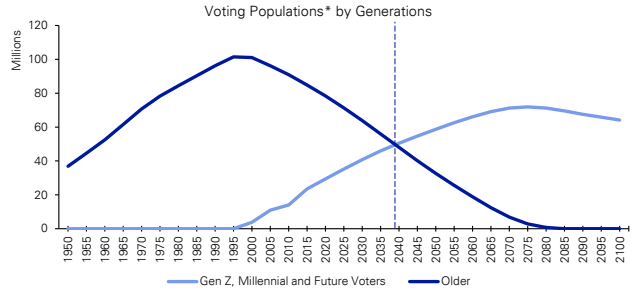
Interestingly of the G7, Italy and Japan see the crossover between the two groups occurring as late as 2035-2040, which reflects their poorer relative and absolute demographics going forward. This may help explain why Japan continues to be dominated by the elderly interest groups as population growth from the Millennial generation onwards has simply not been enough to threaten the pre-1980s cohort's dominance. It also suggests that countries like the US and the UK, where the young vs old voter dominance happens much sooner (between 2025 and 2030), won't necessarily see the same economic trends as what Japan has seen in recent years and is likely to see going forward. The crossover in Germany and France likely occurs in the early 2030s, so even here the themes of younger voters will increasingly be felt as we move through the upcoming decade.

Figure 58:Italian voting population



Source :United Nations, Haver, Deutsche Bank
**Using midpoint of 15-20 age range to proxy voting age*

Figure 59:Japanese voting population



Source :United Nations, Haver, Deutsche Bank
**Using midpoint of 15-20 age range to proxy voting age*

So the 2020s looks set to be the decade where the Millennials and those that follow them make large numerical inroads into the electoral base of the older generation. Although the intergenerational divide is likely to get worse first as they continue to be outnumbered and are left with the Covid-19 shock, it is increasingly feasible that they could usher in a seismic change in a major election within the next decade. As such, we suspect that the electoral dominance of the pre-Millennial coalition is drawing to a close, and when it turns it could have a dramatic impact on the intergenerational divide and the self-reinforcing policies and economic outcomes of the "Globalisation era".

As a caveat, we should say that this analysis assumes equal voter turnout, which history suggests is notably lower for the young. However, this isn't set in stone and if a movement develops that the young feel strongly about and think they can win, then voter turnout could change. Also, this analysis assumes that Millennials don't simply inherit the attitudes and wealth of the older generation as they age and become part of the vested interest group of the older generation. Given the generational gap in home ownership, income and debt, it will be difficult for different age groups to naturally bridge the financial divide that has opened up. We should stress that many in the elder generation support alternative politics vs the majority of their own age group – so as we get closer to a 50/50 split, a change in the political direction of travel can occur anytime, with a coalition of voters.

An electoral victory for the post-Millennial generation would likely usher in a reversal of policies that have favoured those born before, say, 1980. These could include a harsher inheritance tax regime, less income protection for pensioners, more property taxes, higher top-end income taxes, higher corporate taxes and more all-round redistributive policies. The "new" generation might also be more tolerant of inflation insofar as it will erode the debt burden it is inheriting and put the pain on bond holders, which tend to have a bias towards the pensioner generation.

Even without an extreme electoral shift, as the left-behind post-Millennial generation becomes more electorally powerful, it is likely to increasingly shape the policies of more mainstream parties. So even without a seismic shift, we still may be in the process of shifting from an era where boomer-type policies were in the ascendancy to one where Millennial preferences start to have a serious impact on politics. In terms of asset prices, most assets are simply transferred from one generation to another at a market-clearing price. Unless the post-Millennial generation has a sudden income boost, the price it will be prepared or able to pay for the assets of the pre-Millennial population – as the latter wants or needs to sell – will likely be under some pressure relative to past growth, especially the stunning growth of the "Globalisation Era".

Climate change: The conflict between the economy and environment

Another clash between the young and old will increasingly manifest itself in the climate-change debate where polarised opinions exist, especially by age. As the pro-climate younger generation's numbers naturally increase as per the last chapter, the pressure to act will rise and the implications for the global economy could be significant.

If 2020 has shown anything, it is that the world can change, and adapt to that change, far quicker than anyone expected. At the beginning of 2020, climate change was the biggest show in town. Countries and companies were lining up to spend money and make sacrifices as they aligned themselves with the goals of the Paris Accord. The quote "climate change is the most pressing issue we face" can be attributed to any number of political, business, and societal leaders.

As Covid-19 spread around the world just a few months later, many expected environmentalists to shrink into the shadows. After all, it seemed the urgency of the health and economic crises should trump longer-term environmental goals.

This has not been the case. In fact, many environmentalists see the virus not as something that will delay their goals, but rather as their biggest opportunity. That sets the stage for years of aggressive conflict between those who prioritise the economy and those who fight for the environment. That conflict will permeate political and policymaking circles and extend beyond national boundaries.

The pandemic has emboldened environmentalists in many ways. For example, Greenpeace argues "the pandemic has revealed what things must change" and has exposed how our systems are broken. In particular, it said "our energy systems served only the wealthy" and the response to the pandemic has proved that "we can live with less flying and less driving".

If a large and influential organisation such as Greenpeace sees the pandemic as a catalyst for – rather than an obstacle to – climate change, then it is certain that many other people, politicians, and organisations share the view. Indeed, some environmentalists have argued that polluting companies are using Covid-19 as an excuse to prop up their business models with government aid while hiding behind the fig leaf of "restoring jobs".

Furthermore, many environmentalists acknowledge that lockdowns have been difficult, but they point out that less than a year into the pandemic, we are already learning how to live a more environmentally-friendly life. In some regards, this is true. The lockdowns enacted in most countries this year have led to a marked decrease in the level of energy demand. Indeed, this fell over 5 per cent during lockdowns, a rate of contraction not seen since the World War II, according to the International Energy Agency.

Lower energy demand, along with other factors, has contributed to a significant drop in greenhouse gas emissions. A publication in Nature estimated that at the peak of lockdowns earlier this year, emissions in individual countries decreased by an average of 26 per cent compared with 2019 levels.

Coincidentally, a one-quarter drop in emissions (from 2017 levels) is exactly the amount required by 2030 to limit global warming to two degrees, per the Paris

Accord. Many environmentalists therefore see the pandemic as the trigger for lasting change. They view the economic consequences in two ways. First, they are a difficult but necessary part of the adjustment to a lower-carbon world. Second, they are proof that when the world is committed to a course of action, it can adapt to rapid change. That will only embolden environmentalist to push for the more difficult goal in the Paris Accord – limiting global warming to 1.5 degrees, which is the threshold for avoiding the worst of the effects of climate change.

While the voices of environmentalists have grown louder, many who prioritise the economy are pushing just as hard. They argue that the economic carnage that has led to the 26 per cent drop in emissions this year is unrepeatable without resulting in a breakdown in society. Furthermore, they note that now the world has experienced the devastation of a 26 per cent emission reduction, there is no way society can push for more. Indeed, to achieve global warming of just 1.5 degrees, the IPCC says emissions need to fall 55 per cent relative to 2017 levels. That is twice the drop seen during the lockdowns.

Achieving a level of emission reduction equal to double that seen during this year's lockdown will require a heroic effort that is hard to see happening in democratic countries. For example, if a 26 per cent reduction in emissions coincided with a US unemployment rate of over 14 per cent, will efforts to double the drop in emissions require unemployment to double to almost 30 per cent? The societal effects of that level of joblessness are almost too severe to be imagined.

Environmentalists will push back on this argument. They say that another round of mass unemployment may not eventuate as we are already learning to live with restrictions on our lives. They will point out that some businesses that have struggled during the pandemic were already in trouble and Covid-19 just accelerated an inevitable decline. Therefore, the extent of the business disruption seen this year could merely be a short-term adjustment. Furthermore, they argue that the trend towards localised supply chains that has been accelerated by the pandemic began several years ago. This is just another inevitable trend that has been amplified by the crisis.

Many economists will balk at accepting these points. They will argue that none of that matters when governments and central banks have embarked on enormous borrowing programmes with little indication of how the debt will be repaid. In fact, it is hard to see how the debt can even be sustained unless the economy remains the highest priority. And without keeping the economy going as we know it, further action on climate change may be difficult. Indeed, while the current market economy, and its pricing mechanisms, are far from perfect, they have been a key driver behind many of the developments in renewable energy.

The political aspect of the debate will demand greater recognition over the coming decade as those on lower incomes are drawn in. These people have been among those worst affected by the pandemic in terms of both health and economics. Those in lower-income bands, and other vulnerable people in society, could find themselves opposed to restrictions that reduce emissions. For example, aggressive emission reduction will certainly involve curbs on transport. Yet, these policies will disproportionately affect those living in rural areas (which tend to have lower incomes) and those who depend on their car for work. These policies will also place increased strain on public transport, something that takes many years to upgrade, and affects those who live farthest from city centres.

If aggressive environmental measures lead to greater inequality, or heap further economic hardship on people who have already been hurt by the pandemic, there are significant ramifications. For starters, governments have a poor record of being reelected during an economic downturn, so they will be reluctant to implement pro-environment policies knowing they may increase the risk of losing an election. In that vein, economic malaise fuels populism. So if governments that implement environmental measures are subsequently voted out, there is a high chance that pro-environment policies will be reversed by the incoming government. Populist governments also have a bad track record of being involved in the type of multilateral action that is needed to tackle climate change.

The confrontation between supporters of the environment and supporters of the economy will extend to the international stage over the coming decade. As leaders in rich countries push for international agreement on lowering emissions, they will increasingly focus on 'consumption-based' emissions – that is, counting the emissions that go into making a product consumed in a particular country, rather than just estimating the emissions produced by the country. To reduce consumption-based emissions, a carbon border adjustment tax will almost certainly be needed. This will tax imports based on the emissions that go into their production. The idea is to discourage countries from 'exporting' emissions by merely buying products manufactured elsewhere.

This tax could be a popular policy for rich countries as it could encourage domestic manufacturing and "bring jobs home". It also falls into the anti-globalisation narrative, which is increasingly popular. The flip side, though, is that it hurts poor countries. These are the countries whose economies depend on manufacturing goods for rich countries. If manufacturing suddenly leaves their shores, their development will surely be curtailed. This could increase inequality between countries and it certainly increases the risk of international bilateral and multilateral trade wars.

While both sides in the debate appear primed for years of battle, there are some signs that progress might be made within the market process. From a corporate standpoint, climate-change issues are beginning to be driven by customers just as much as investors. Indeed, before the pandemic, the number of people in the UK that actively purchased more products from companies they see as climate-friendly outstripped those who did not by two to one. There was a similar effect in the US. Furthermore, boycott culture is becoming more pronounced. About a third of people have stopped buying a product from a company they "really liked" after seeing bad environmental press on the company.

Hand in hand with boycott culture is the societal phenomenon of publicly pressuring individuals (particularly those in the public eye) to adapt their behaviour to conform with ideals of climate change. This appears certain to drive behavioural and policy change.

The main takeaway from this discussion should be obvious by now. Both sides are becoming more adamant on their position and both sides have copious evidence and logic on their side. In the end, the issue is one of ideology – and that is a divide that may be impossible to bridge. So we should brace ourselves. The coming decade is set to witness a heavily polarised debate over the prioritisation of the environment and the economy. Against the backdrop of the economic carnage wrought by Covid-19, whatever decisions end up being made, they will almost certainly impact the world for decades to come.

Historical Asset Returns

The following pages are our data section, where we examine long-term US returns going back to the start of the nineteenth century (where possible). In addition, we look at various international returns for equities and bonds for as far back as we have data. For many countries, this stretches back deep into the early 1900s, and for some countries the data goes back over 200 years. We show returns in nominal and real terms, and for the international section we convert all returns into dollars for the sake of comparison. We also show returns annualised within each decade and by 50-year buckets. Additionally, we detail returns from certain starting points. With these different starting points, we can hopefully see cyclical, secular and very long-term trends.

US returns across asset classes

First the US. Figure 60 and Figure 61 show why we invest in assets over the medium to long term. Data going back over 200 years shows that storing cash under the mattress has been a recipe for wealth erosion throughout history in all but the most exceptional international circumstances.

Over the entire sample period, US equities have outperformed corporate bonds, which have outperformed government bonds, which have outperformed cash, which interestingly has generally outperformed the commodity index analysed in this section. Over the last 100 years (since end-1920, where we have data for the widest selection of assets), equities have outperformed 10yr and 30yr governments by more than +4.5% p.a., corporates by +3.7% p.a. and T-bills (cash proxy) by +6.8% p.a. They have also outperformed gold by 5.6% p.a., oil by 8.4% p.a., and US housing (prices only) by 6.6% p.a. Indeed, in real terms, over the past 100 years, commodities have generally seen negative returns. Within our small sample, only gold (+2.0% p.a.) and copper (+0.5% p.a.) have seen positive real returns, while the overall commodity index has seen an annualised real return of -1.1% p.a. Housing (+1.0% p.a.) has also seen a positive real return, but this is still underwhelming compared to equities (+7.7% p.a.), 10yr treasuries (+2.7% p.a.) and corporate bonds (+3.8% p.a.). Over recent years, assets like housing (to live in, not rent out) and commodities have been used as a portfolio alternative to equities and bonds. In fact, with the surge in gold prices this year, gold is actually the best-performing asset in our sample over the last five years. That said, history suggests that over the long run, such a strategy is unlikely to produce superior results, especially relative to equities. Their lack of income make it difficult for them to compete with traditional assets. Buy-to-let housing would be more competitive, but there is no long-term data series available to analyse this.

Since 1800, US equities have had only two negative decades in nominal terms: the 1930s (-0.5% p.a.) and the 2000s (-0.9% p.a.); there have been only three in real terms (1910s: -2.8%, 1970s: -1.5%, 2000s: -3.4%).

In nominal terms three of the best five decades for equities since 1900 have occurred in the last four decades (including the most recently completed decade). However, this period also included the worst decade (the 2000s).

Interestingly, 10-year Treasuries and corporate bonds have never seen a negative return decade in nominal terms. But in real terms, six of the 12 decades since 1900 have seen a negative return from 10-year Treasuries, including four successive

decades from the 1940s. After this, the last four decades have seen positive real returns for bonds. That said, with each decade, we have seen these annualized returns decline, and we can't help thinking that we're setting ourselves up for a return to a few negative real return decades ahead in bonds as we venture towards 2050, even if the current decade has started with a bumper year for fixed income returns.

International equity and government bond returns

Fixed income is the asset class for which we have the longest dated data series globally. There is definitely a survivor bias in bonds, though. Although the majority of countries (data back to 1900) in our study have provided positive real returns over this period, there have been some notable exceptions, with France (-1.2% p.a.), Italy (-1.8% p.a.) and Japan (-0.6% p.a.) all seeing negative real returns. Germany would be the worst if we had reliable data through the hyperinflation period in the 1920s. This shows that negative real returns in bonds are a real possibility over even very long periods of time. Negative real returns are also usually difficult to reverse once they've occurred.

For equities we have comprehensive returns data for a number of countries post-WWII. Over the last 50 years, around half of the developed markets saw real annualised returns of +5-6% p.a. Only two countries (Italy, +1.4% p.a.; and Spain, +1.96% p.a.) have seen annualised real returns below +2%, although Austria and Japan have provided annualised real returns of less than +4%.

Since the Euro was introduced in 1999, there is little doubt that equity returns in Europe have been disappointing. However, this period did coincide with the global equity market bubble, so returns are best compared using the US and UK (+4.4% and +2.3% p.a. real adjusted, respectively) for context. None of the Eurozone equity markets has outperformed the US in real terms and only Austria, France and Germany have outperformed the UK. Spain (-1.2% p.a.), Portugal (-0.5% p.a.) and Italy (-0.4% p.a.) have actually failed to provide positive real returns since the introduction of the single currency more than 20 years ago. Although it is not included in this analysis, the same would also be true for Greece. Ireland has only mustered +1.5% annualised real returns. Such poor returns for the peripheral Eurozone economies' equity markets, especially those still in negative territory after more than 20 years, is a worrying statistic for supporters of the single currency.

Government bond returns since the Euro commenced are strong across the board due to the themes explored in previous reports, with investors having central banks to thank for this in the weakest Euro area countries. Without their intervention it's possible we would have seen sovereign defaults over and above the haircuts that investors took in Greece. This would have wiped out returns in fixed income that, as history shows, are hard to get back even over the very long term.

We also include tables using similar time frames to show long-term nominal and real GDP for a host of DM and EM countries. We've also converted into dollars to allow some comparison through time.

The full data is shown in the following pages, covering nominal and real returns and including a shorter history for various EM countries. For all returns we also show nominal returns through time in dollar terms. For visual ease, we have shaded the periods of negative returns.

Figure 60: Nominal returns for US assets over different time horizons

	Equity	Corp Bond	AAA Bond	BBB Bond	Treasury (10yr)	Treasury (30yr)	HY Bond	Treasury (HY Matched)	Treasury Bill	House Prices (Price Only)	Gold	Copper	Oil	Wheat	Commodities (CRB Index)
last 5yrs (2016-2020)	11.92%	11.41%	11.24%	12.05%	5.18%	10.60%	7.10%	3.53%	1.13%	4.56%	13.23%	6.19%	1.55%	6.84%	-3.99%
last 10yrs (2011-2020)	12.24%	9.01%	8.90%	9.07%	4.72%	9.09%	5.96%	2.74%	0.59%	4.52%	3.36%	-3.97%	-7.91%	-3.47%	-8.06%
last 15yrs (2006-2020)	8.82%	8.10%	8.03%	8.22%	5.03%	7.39%	6.90%	3.82%	1.12%	1.31%	9.34%	1.87%	-2.76%	3.49%	-5.43%
last 25yrs (1996-2020)	8.92%	8.27%	8.21%	8.35%	5.44%	7.45%	6.77%	4.47%	2.12%	4.03%	6.74%	3.36%	2.92%	0.27%	-0.18%
last 50yrs (1971-2020)	10.53%	9.34%	8.98%	9.73%	7.34%	8.06%			4.61%	4.95%	8.26%	3.49%	5.05%	2.32%	2.08%
last 75yrs (1946-2020)	10.86%	6.45%	6.19%	6.82%	5.55%	5.63%			4.00%	4.63%	5.44%	4.36%	3.77%	1.50%	1.83%
last 100yrs (1921-2020)	10.48%	6.51%	6.29%	6.97%	5.38%	5.55%			3.40%	3.67%	4.67%	3.17%	1.90%	0.99%	1.53%
last 150yrs (1871-2020)	8.92%				4.78%				3.29%		3.02%	1.43%	1.66%	1.09%	
last 200yrs (1821-2020)	8.66%				5.00%				3.63%		2.34%	1.16%			
since 1800	8.61%				5.19%				3.77%		2.11%	0.78%			
since 1900	9.62%	5.90%			4.72%	4.93%			3.33%	3.53%	3.84%	2.27%	2.67%	1.73%	
since 1920	10.13%	6.38%	6.18%	6.83%	5.28%	5.46%			3.42%	3.72%	4.62%	2.76%	2.08%	0.79%	1.16%
since 1930	9.63%	6.35%	6.14%	6.78%	5.24%	5.39%			3.37%	4.07%	5.14%	3.13%	2.89%	1.59%	1.78%
1900-2020	9.62%	5.90%			4.72%	4.93%			3.33%	3.53%	3.84%	2.27%	2.67%	1.73%	
since 1971	10.53%	9.34%	8.98%	9.73%	7.34%	8.06%			4.61%	4.95%	8.26%	3.49%	5.05%	2.32%	2.08%
since 1980	11.55%	10.24%	9.96%	10.53%	7.92%	9.28%			4.20%	4.29%	3.35%	2.59%	0.13%	0.52%	0.05%
since 1985	11.13%	10.14%	9.94%	10.34%	7.44%	9.30%	8.62%	6.48%	3.25%	4.15%	5.29%	4.38%	1.17%	1.14%	0.45%
since 1999	6.53%	8.27%	8.11%	8.39%	5.01%	7.08%	6.46%	4.05%	1.73%	3.99%	9.15%	6.56%	5.58%	3.62%	0.62%
RETURNS BY DECADE															
1800-1809	11.09%				8.74%				5.16%		0.00%	-1.62%			
1810-1819	4.91%				6.22%				5.07%		0.00%	-4.63%			
1820-1829	6.94%				5.67%				3.80%		0.00%	-1.63%			
1830-1839	5.34%				2.14%				4.29%		0.67%	1.38%			
1840-1849	7.83%				7.76%				5.02%		-0.03%	-2.57%			
1850-1859	1.62%				5.25%				5.08%		0.00%	2.35%		5.70%	
1860-1869	18.34%				6.96%				5.04%		1.81%	1.90%	-12.73%	-1.80%	
1870-1879	7.73%				6.14%				4.11%		-1.78%	-2.05%	-14.26%	5.23%	
1880-1889	5.68%				5.50%				3.04%		0.00%	-1.66%	-0.70%	-5.09%	
1890-1899	5.37%				3.44%				2.33%		0.00%	-1.26%	4.88%	-1.21%	
1900-1909	9.92%	4.39%			1.64%	2.17%			3.04%	1.97%	0.00%	-3.55%	-1.43%	6.06%	
1910-1919	4.35%	2.62%			2.27%	2.52%			2.73%	3.15%	0.00%	3.34%	13.33%	7.19%	
1920-1929	14.78%	6.72%	6.52%	7.30%	5.65%	6.05%			3.88%	0.65%	0.00%	-0.48%	-4.98%	-6.18%	-4.33%
1930-1939	-0.47%	6.45%	7.48%	6.41%	4.11%	5.49%			0.58%	-1.21%	5.41%	-3.51%	-1.81%	-2.22%	-0.70%
1940-1949	8.99%	3.92%	2.92%	5.44%	2.59%	2.42%			0.48%	8.12%	1.47%	4.00%	0.28%	7.64%	5.90%
1950-1959	19.26%	0.16%	-0.08%	0.59%	0.39%	-0.50%			2.02%	2.97%	-1.38%	5.96%	1.46%	-0.69%	0.62%
1960-1969	7.76%	0.57%	0.42%	0.89%	2.36%	0.51%			4.06%	1.85%	-0.01%	5.43%	0.78%	-2.96%	0.24%
1970-1979	5.77%	5.34%	5.02%	5.85%	6.08%	3.71%			6.48%	7.99%	30.70%	6.28%	28.04%	11.43%	10.48%
1980-1989	17.47%	13.72%	13.03%	14.44%	12.78%	12.64%			9.13%	6.94%	-2.37%	0.57%	-5.40%	-0.74%	-2.00%
1990-1999	18.21%	9.30%	8.84%	9.96%	7.98%	8.40%	11.21%	7.34%	4.95%	2.67%	-3.32%	-2.12%	1.67%	-6.31%	3.19%
2000-2009	-0.95%	8.87%	8.91%	8.62%	6.40%	7.03%	6.52%	6.18%	2.74%	3.95%	14.32%	13.96%	11.91%	6.67%	6.04%
2010-2019	13.56%	8.18%	7.82%	8.64%	4.10%	7.17%	7.50%	2.35%	0.58%	3.77%	3.31%	-1.52%	-2.58%	4.27%	-4.13%
2020-2020	2.38%	20.28%	23.97%	16.35%	13.94%	30.94%	-0.23%	9.34%	0.28%	3.04%	30.17%	5.55%	-34.41%	-11.96%	-22.66%
RETURNS BY HALF CENTURY															
1800-1849	7.20%				6.08%				4.67%		0.13%	-1.83%			
1850-1899	7.61%				5.46%				3.91%		0.00%	-0.16%		0.48%	
1900-1949	7.39%	4.81%			3.24%	3.72%			2.13%	2.49%	1.35%	-0.09%	0.89%	2.34%	2.42%
1950-1999	13.55%	5.69%	5.33%	6.21%	5.83%	4.84%			5.30%	4.46%	4.00%	3.17%	4.72%	-0.03%	-0.44%
2000-2020	5.88%	9.06%	9.06%	8.99%	5.64%	8.13%	6.65%	4.48%	1.59%	3.82%	9.61%	5.92%	2.13%	4.56%	

Note: 2020 data to 31 Jul 2020
Source : Deutsche Bank, GFD, ICE Indices

Figure 61: Real returns for US assets over different time horizons

	Equity	Corp Bond	AAA Bond	BBB Bond	Treasury (10yr)	Treasury (30yr)	HY Bond	Treasury (HY Matched)	Treasury Bill	House Prices (Price Only)	Gold	Copper	Oil	Wheat	Commodities (CRB Index)
last 5yrs (2016-2020)	10.04%	9.55%	9.38%	10.18%	3.41%	8.75%	5.30%	1.80%	-0.57%	2.80%	11.33%	4.41%	-0.15%	5.05%	-5.60%
last 10yrs (2011-2020)	10.46%	7.28%	7.17%	7.34%	3.06%	7.36%	4.28%	1.11%	-1.01%	2.86%	1.72%	-5.49%	-9.37%	-5.00%	-9.52%
last 15yrs (2006-2020)	6.90%	6.19%	6.12%	6.31%	3.18%	5.49%	5.02%	1.99%	-0.67%	-0.48%	7.41%	0.07%	-4.48%	1.66%	-7.10%
last 25yrs (1996-2020)	6.68%	6.04%	5.98%	6.12%	3.27%	5.24%	4.57%	2.32%	0.02%	1.89%	4.54%	1.24%	0.80%	-1.79%	-2.23%
last 50yrs (1971-2020)	6.47%	5.32%	4.98%	5.70%	3.39%	4.09%			0.76%	1.09%	4.28%	-0.31%	1.19%	-1.44%	-1.67%
last 75yrs (1946-2020)	7.01%	2.75%	2.50%	3.10%	1.88%	1.96%			0.39%	1.00%	1.77%	0.73%	0.16%	-2.02%	-1.71%
last 100yrs (1921-2020)	7.65%	3.78%	3.57%	4.23%	2.68%	2.85%			0.76%	1.01%	1.99%	0.53%	-0.70%	-1.59%	-1.06%
last 150yrs (1871-2020)	6.49%				2.44%				0.98%		0.71%	-0.84%	-0.61%	-1.17%	
last 200yrs (1821-2020)	6.66%				3.06%				1.72%		0.45%	-0.71%			
since 1800	6.82%				3.46%				2.05%		0.43%	-0.88%			
since 1900	6.44%	2.83%			1.68%	1.89%			0.34%	0.53%	0.83%	-0.69%	-0.31%	-1.22%	
since 1920	7.31%	3.66%	3.47%	4.10%	2.58%	2.76%			0.78%	1.07%	1.94%	0.14%	-0.53%	-1.78%	-1.43%
since 1930	6.41%	3.22%	3.03%	3.65%	2.15%	2.30%			0.34%	1.01%	2.05%	0.10%	-0.13%	-1.39%	-1.21%
1900-2020	6.44%	2.83%			1.68%	1.89%			0.34%	0.53%	0.83%	-0.69%	-0.31%	-1.22%	
since 1971	6.47%	5.32%	4.98%	5.70%	3.39%	4.09%			0.76%	1.09%	4.28%	-0.31%	1.19%	-1.44%	-1.67%
since 1980	8.30%	7.02%	6.75%	7.31%	4.77%	6.09%			1.16%	1.25%	0.33%	-0.40%	-2.79%	-2.42%	-2.87%
since 1985	8.39%	7.43%	7.23%	7.62%	4.79%	6.61%	5.95%	3.86%	0.71%	1.59%	2.70%	1.81%	-1.32%	-1.35%	-2.02%
since 1999	4.35%	6.07%	5.90%	6.18%	2.87%	4.90%	4.29%	1.92%	-0.34%	1.87%	6.92%	4.38%	3.43%	1.50%	-1.43%
RETURNS BY DECADE															
1800-1809	11.09%				8.74%				5.16%		0.00%	-1.62%			
1810-1819	4.56%				5.87%				4.72%		-0.34%	-4.96%			
1820-1829	9.05%				7.76%				5.86%		1.98%	0.31%			
1830-1839	3.23%				0.10%				2.20%		-1.35%	-0.65%			
1840-1849	10.82%				10.75%				7.94%		2.75%	0.13%			
1850-1859	0.07%				3.64%				3.47%		-1.53%	0.79%		4.08%	
1860-1869	13.58%				2.66%				0.81%		-2.29%	-2.20%	-16.24%	-5.75%	
1870-1879	10.20%				8.57%				6.50%		0.47%	0.19%	-12.30%	7.64%	
1880-1889	5.68%				5.50%				3.04%		0.00%	-1.66%	-0.70%	-5.09%	
1890-1899	5.23%				3.30%				2.19%		-0.13%	-1.39%	4.74%	-1.34%	
1900-1909	7.36%	1.95%			-0.73%	-0.22%			0.63%	-0.41%	-2.34%	-5.80%	-3.73%	3.58%	
1910-1919	-2.78%	-4.39%			-4.72%	-4.49%			-4.29%	-3.90%	-6.84%	-3.72%	5.59%	-0.14%	
1920-1929	15.87%	7.73%	7.53%	8.32%	6.65%	7.06%			4.87%	1.61%	0.95%	0.46%	-4.08%	-5.29%	-3.42%
1930-1939	1.60%	8.66%	9.72%	8.63%	6.27%	7.69%			2.67%	0.85%	7.60%	-1.50%	0.24%	-0.19%	1.37%
1940-1949	3.45%	-1.36%	-2.31%	0.07%	-2.63%	-2.79%			-4.63%	2.62%	-3.69%	-1.29%	-4.83%	2.17%	0.52%
1950-1959	16.67%	-2.02%	-2.25%	-1.60%	-1.80%	-2.67%			-0.20%	0.74%	-3.52%	3.66%	-0.75%	-2.84%	-1.57%
1960-1969	5.11%	-1.89%	-2.05%	-1.59%	-0.15%	-1.96%			1.51%	-0.65%	-2.47%	2.84%	-1.69%	-5.34%	-2.22%
1970-1979	-1.51%	-1.91%	-2.20%	-1.44%	-1.21%	-3.43%			-0.85%	0.56%	21.71%	-1.03%	19.23%	3.76%	2.88%
1980-1989	11.78%	8.21%	7.56%	8.90%	7.32%	7.19%			3.84%	1.76%	-7.10%	-4.30%	-9.98%	-5.54%	-6.75%
1990-1999	14.83%	6.18%	5.73%	6.82%	4.90%	5.30%	8.03%	4.27%	1.95%	-0.26%	-6.08%	-4.92%	-1.23%	-8.99%	0.24%
2000-2009	-3.42%	6.15%	6.19%	5.91%	3.75%	4.36%	3.86%	3.53%	0.18%	1.35%	11.46%	11.12%	9.12%	4.01%	3.39%
2010-2019	11.61%	6.32%	5.97%	6.77%	2.31%	5.33%	5.65%	0.59%	-1.15%	1.99%	1.53%	-3.21%	-4.25%	2.48%	-5.78%
2020-2020	2.27%	20.15%	23.84%	16.23%	13.82%	30.80%	-0.34%	9.22%	0.18%	2.93%	30.03%	5.43%	-34.48%	-12.05%	-22.74%
RETURNS BY HALF CENTURY															
1800-1849	7.70%				6.58%				5.16%		0.60%	-1.37%			
1850-1899	6.85%				4.72%				3.19%		-0.70%	-0.86%		-0.23%	
1900-1949	4.91%	2.39%			0.86%	1.33%			-0.22%	0.13%	-0.98%	-2.40%	-1.44%	-0.02%	
1950-1999	9.17%	1.62%	1.27%	2.12%	1.75%	0.79%			1.24%	0.43%	-0.01%	-0.81%	0.68%	-3.88%	-1.53%
2000-2020	3.75%	6.86%	6.86%	6.79%	3.52%	5.96%	4.50%	2.38%	-0.46%	1.73%	7.40%	3.79%	0.07%	2.46%	-2.45%

Note: 2020 data to 31 Jul 2020
Source : Deutsche Bank, GFD, ICE Indices

Figure 62: Developed market nominal equity and bond returns (annualised)

	Last 5yrs	Last 10yrs	Last 25yrs	Last 50yrs	Last 100yrs	since 1900	1900-1970	since 1971	since 1999	Returns by Decade: 1800-1809	1810-1819	1820-1829	1830-1839	1840-1849	1850-1859	1860-1869	1870-1879	1880-1889	1890-1899	1900-1909	1910-1919	1920-1929	1930-1939	1940-1949	1950-1959	1960-1969	1970-1979	1980-1989	1990-1999	2000-2009	2010-2019
EQUITY																															
Australia	6.2%	6.6%	8.4%	10.9%	11.6%	11.6%	12.1%	10.9%	7.9%										7.9%	13.6%	9.7%	15.4%	10.2%	10.1%	15.3%	14.0%	8.6%	17.7%	11.0%	8.9%	7.9%
Austria	0.1%	-0.5%	4.8%	6.2%				6.2%	4.3%																		6.5%	16.3%	1.4%	7.4%	5.4%
Belgium	-3.7%	3.7%	5.9%	8.7%	7.4%	7.2%	6.2%	8.7%	2.5%											6.4%	6.7%	9.2%	-6.9%	11.9%	14.0%	3.4%	7.2%	20.6%	11.4%	1.8%	7.2%
Canada	7.4%	4.8%	7.6%	9.1%	9.3%	8.9%	8.8%	9.1%	6.8%				49.0%	9.8%	4.7%	1.1%	6.0%	6.0%	6.1%	10.0%	6.0%	14.7%	1.0%	8.4%	13.3%	10.0%	10.4%	12.2%	10.6%	5.6%	6.9%
Denmark	8.0%	12.5%	12.8%	13.0%	9.5%	8.1%	4.7%	13.0%	10.9%									4.8%	2.8%	2.0%	2.8%	-0.8%	4.7%	7.1%	11.2%	7.4%	7.9%	23.8%	11.1%	6.7%	14.6%
France	3.6%	6.2%	7.6%	9.7%	11.1%	10.3%	10.6%	9.7%	4.9%		10.0%	7.4%	9.4%	7.2%	16.7%	5.8%	7.8%	6.4%	6.1%	5.6%	8.1%	16.9%	-1.5%	20.7%	24.0%	4.5%	6.8%	21.9%	14.3%	-0.3%	8.7%
Germany	3.3%	6.5%	6.9%	7.9%	7.8%	5.4%	3.7%	7.9%	4.6%					3.6%	4.2%	11.2%	7.7%	10.0%	5.1%	5.6%	-18.7%	18.1%	4.5%	-6.0%	25.8%	6.0%	2.2%	15.9%	12.1%	-0.9%	9.2%
Hong Kong	5.9%	4.2%	7.2%	14.1%				14.1%	7.7%																		24.1%	17.1%	24.3%	6.0%	6.3%
Ireland	-0.7%	9.8%	6.4%	11.4%	10.3%	8.5%	6.5%	11.4%	3.1%			-8.4%	4.5%	1.7%	13.8%	4.9%	8.3%	4.1%	5.5%	2.3%	-0.4%	6.6%	5.8%	9.7%	7.4%	16.0%	13.4%	23.1%	14.4%	-2.8%	11.4%
Italy	1.1%	2.9%	5.2%	7.5%				7.5%	1.3%														6.5%	30.4%	23.5%	3.7%	-3.0%	28.0%	12.6%	-1.1%	3.7%
Japan	1.4%	7.5%	1.3%	6.2%	10.8%	9.8%	12.3%	6.2%	3.1%										2.5%	2.5%	14.2%	-1.2%	14.2%	15.9%	33.9%	13.0%	12.3%	21.3%	-4.2%	-5.1%	8.9%
Netherlands	6.0%	6.7%	6.9%	10.1%	8.4%	8.0%	6.6%	10.1%	3.6%											7.5%	7.5%	-0.8%	0.6%	10.3%	16.9%	6.1%	5.7%	20.3%	20.6%	-2.6%	8.8%
New Zealand	13.3%	14.3%	9.6%	11.5%	10.4%	9.9%	8.8%	11.5%	10.1%								8.9%	1.8%	3.5%	8.7%	8.2%	5.3%	6.4%	8.6%	11.5%	15.0%	5.8%	22.9%	8.3%	6.2%	14.4%
Norway	6.2%	6.2%	8.7%	10.0%				10.0%	8.7%																		14.1%	14.0%	9.9%	7.3%	9.5%
Portugal	4.5%	1.5%	5.2%						1.2%																				11.1%	0.6%	1.5%
Spain	-10.3%	-2.9%	5.4%	8.3%				8.3%	0.8%																13.3%	19.1%	-1.2%	27.4%	18.7%	4.3%	0.7%
Sweden	8.5%	8.8%	10.5%	14.2%	10.8%	9.3%	6.0%	14.2%	8.2%									7.9%	9.1%	5.7%	1.9%	3.5%	-0.2%	10.5%	16.3%	8.1%	6.7%	32.4%	19.0%	1.3%	11.4%
Switzerland	6.4%	7.9%	7.3%	7.8%	7.9%			7.8%	4.7%													9.7%	2.6%	9.4%	12.4%	5.3%	2.0%	10.6%	16.0%	1.1%	8.6%
UK	2.5%	4.2%	5.9%	11.1%	10.1%	8.4%	6.6%	11.1%	4.3%	8.1%	5.4%	4.8%	4.3%	4.8%	3.8%	4.4%	4.9%	5.5%	3.0%	0.6%	1.5%	9.5%	1.9%	8.9%	17.2%	8.3%	10.2%	23.9%	14.9%	1.6%	8.1%
US	11.9%	12.2%	8.9%	10.5%	10.5%	9.6%	9.0%	10.5%	6.5%	11.1%	4.9%	6.9%	5.3%	7.8%	1.6%	18.3%	7.7%	5.7%	5.4%	9.9%	4.3%	14.8%	-0.5%	9.0%	19.3%	7.8%	5.8%	17.5%	18.2%	-0.9%	13.6%
BOND																															
Australia	5.7%	6.9%	7.2%	9.3%	7.1%	6.2%	4.0%	9.3%	6.1%							5.2%	5.1%	5.2%	4.0%	2.1%	1.8%	5.3%	7.2%	5.1%	3.1%	4.2%	6.9%	12.4%	12.9%	6.7%	7.1%
Austria	1.5%	4.1%	5.0%	7.0%				7.0%	4.4%														-0.7%	8.2%	7.9%	6.2%	8.1%	8.7%	8.5%	5.8%	4.5%
Belgium	2.5%	5.1%	5.7%	7.8%	6.6%	5.5%	4.0%	7.8%	4.8%					3.8%	6.1%	5.0%	5.2%	4.9%	3.4%	2.9%	-1.2%	8.4%	3.9%	4.9%	4.3%	4.4%	6.3%	12.0%	10.4%	6.0%	5.0%
Canada	3.2%	4.2%	6.1%	8.1%	6.2%	5.4%	3.6%	8.1%	5.1%							5.0%	6.3%	6.5%	3.3%	2.5%	1.6%	5.8%	5.2%	3.5%	1.5%	3.7%	6.8%	13.4%	10.7%	6.8%	3.7%
Denmark	2.4%	3.9%	5.7%	10.0%	8.0%	7.0%	4.9%	10.0%	4.6%	4.1%	-1.4%	8.9%	4.1%	3.6%	5.1%	4.7%	5.9%	5.0%	3.3%	3.7%	1.1%	6.6%	6.0%	8.3%	4.5%	4.1%	10.1%	18.9%	11.2%	6.1%	4.5%
France	2.3%	4.3%	5.5%	8.2%	6.5%	5.6%	3.7%	8.2%	4.5%	21.8%	6.0%	11.9%	3.9%	0.4%	6.8%	5.1%	6.0%	4.5%	4.3%	3.1%	-1.0%	8.1%	3.8%	2.8%	5.4%	4.3%	6.1%	14.7%	10.1%	5.9%	4.7%
Germany	2.1%	3.8%	5.1%	6.9%				6.9%	4.4%														7.3%	-17.3%	5.9%	5.8%	8.1%	8.2%	8.5%	5.8%	4.3%
Hong Kong	3.6%	3.9%	4.9%						4.4%																					6.0%	2.5%
Ireland	2.8%	10.3%	6.6%	9.9%	7.3%	6.0%	3.3%	9.9%	5.4%								3.8%	2.7%	2.9%	1.4%	-0.5%	6.6%	3.8%	7.2%	4.6%	3.4%	5.5%	18.4%	10.6%	5.1%	7.4%
Italy	3.6%	6.5%	7.3%	10.0%	7.2%	6.4%	4.0%	10.0%	5.2%		12.4%	10.5%	7.4%	18.6%	6.3%	1.0%	12.3%	6.4%	5.9%	5.1%	1.5%	2.9%	5.9%	5.0%	3.3%	5.0%	6.5%	17.3%	14.3%	5.8%	6.0%
Japan	0.5%	1.4%	2.2%	5.2%	6.4%	5.8%	6.2%	5.2%	1.8%									6.8%	5.2%	6.3%	1.1%	8.1%	5.1%	3.8%	8.2%	11.3%	6.8%	9.2%	7.2%	1.8%	1.7%
Netherlands	2.3%	4.1%	5.3%	7.1%	5.5%	4.6%	2.9%	7.1%	4.5%	-1.4%	-3.3%	9.0%	3.2%	5.6%	5.8%	2.5%	6.1%	6.3%	2.6%	2.8%	0.4%	5.9%	4.3%	4.6%	0.2%	1.9%	7.5%	9.6%	8.7%	5.9%	4.4%
New Zealand	7.3%	7.6%	7.3%	8.8%	6.6%	5.7%	3.5%	8.8%	6.7%								5.9%	6.0%	4.1%	2.4%	0.4%	6.8%	5.4%	5.2%	-0.4%	4.7%	2.6%	15.1%	11.9%	7.2%	7.4%
Norway	3.1%	4.7%	5.4%	7.7%	6.5%	5.6%	4.2%	7.7%	5.0%				4.9%	4.1%	3.4%	3.7%	6.8%	4.9%	1.7%	3.8%	0.2%	6.9%	4.2%	13.4%	-3.6%	4.8%	4.4%	13.1%	11.0%	5.5%	4.4%
Portugal	5.7%	9.7%	8.2%	10.5%	8.9%	7.5%	5.4%	10.5%	6.4%				10.8%	8.8%	12.2%	3.9%	12.6%	7.9%	-5.5%	7.8%	1.6%	9.3%	10.1%	2.7%	3.9%	3.0%	1.6%	19.5%	17.8%	5.9%	8.9%
Spain	3.8%	7.2%	7.1%	10.1%	7.2%	6.9%	4.8%	10.1%	5.1%	3.4%	-18.4%	15.7%	11.6%	-2.7%	12.2%	3.7%	0.0%	14.4%	5.4%	8.8%	3.3%	5.4%	6.2%	3.3%	2.8%	4.8%	6.5%	16.8%	15.1%	5.7%	6.2%
Sweden	1.9%	3.2%	5.1%	7.6%	5.9%	5.4%	3.9%	7.6%	4.0%							5.2%	5.8%	5.0%	3.1%	3.1%	3.4%	5.9%	4.1%	3.9%	2.5%	3.8%	6.1%	11.7%	11.9%	5.6%	3.4%
Switzerland	1.8%	2.7%	3.6%	4.5%	4.3%	4.0%	3.6%	4.5%	3.2%											3.6%	1.5%	6.0%	4.2%	4.1%	2.7%	2.9%	5.8%	3.9%	5.9%	4.3%	2.9%
UK	3.2%	4.0%	6.0%	9.1%	6.2%	5.1%	2.3%	9.1%	4.8%	6.1%	4.1%	7.2%	3.3%	3.8%	3.3%	2.8%	3.8%	2.7%	2.9%	1.3%	-1.0%	5.2%	7.1%	2.0%	0.9%	1.6%	8.2%	14.1%	12.1%	6.0%	4.5%
US	5.2%	4.7%	5.4%	7.3%	5.4%	4.7%	2.9%	7.3%	5.0%	8.7%	6.2%	5.7%	2.1%	7.8%	5.3%	7.0%	6.1%	5.5%	3.4%	1.6%	2.3%	5.6%	4.1%	2.6%	0.4%	2.4%	6.1%	12.8%	8.0%	6.4%	4.1%

Note: 2020 data to 31 Jul 2020
Source : Deutsche Bank, GFD

Figure 63: Developed market real equity and bond returns (annualised)

										Returns by Decade																				
	Last 5yrs	Last 10yrs	Last 25yrs	Last 50yrs	Last 100yrs	since 1900	1900-1970	since 1971	since 1999	1800-1809	1810-1819	1820-1829	1830-1839	1840-1849	1850-1859	1860-1869	1870-1879	1880-1889	1890-1899	1900-1909	1910-1919	1920-1929	1930-1939	1940-1949	1950-1959	1960-1969	1970-1979	1980-1989	1990-1999	2000-2009	2010-2019
EQUITY																														
Australia	5.0%	4.8%	6.1%	5.6%	7.5%	7.6%	9.0%	5.6%	5.4%										9.5%	12.3%	4.2%	14.6%	11.3%	4.5%	8.4%	11.2%	-1.4%	8.6%	8.6%	5.6%	5.6%
Austria	-1.3%	-2.2%	3.0%	3.0%				3.0%	2.5%																		0.5%	12.2%	-1.0%	5.5%	3.4%
Belgium	-5.3%	2.2%	4.0%	5.1%	3.1%	2.2%	0.3%	5.1%	0.6%											3.3%			-6.3%	-0.7%	11.6%	0.6%	0.1%	15.2%	9.1%	-0.3%	5.3%
Canada	5.7%	3.2%	5.7%	5.0%	6.6%	5.7%	6.2%	5.0%	4.9%				48.5%	14.0%	0.5%	5.8%	7.9%	5.7%	7.4%	5.7%	-0.3%	15.6%	2.9%	3.7%	10.6%	7.1%	2.7%	5.6%	8.3%	3.5%	5.1%
Denmark	7.2%	11.6%	11.0%	8.6%	6.0%	4.1%	1.1%	8.6%	9.3%									5.4%	2.9%	1.0%	-5.7%	0.2%	2.8%	2.6%	7.1%	1.7%	-1.6%	16.3%	8.8%	4.7%	13.4%
France	2.4%	5.0%	6.1%	5.4%	4.2%	3.2%	1.7%	5.4%	3.4%		9.2%	7.2%	8.7%	7.1%	16.1%	5.1%	7.3%	6.5%	6.4%	5.3%	-3.3%	8.3%	-4.3%	-8.8%	17.4%	0.6%	-2.2%	14.1%	12.2%	-2.1%	7.4%
Germany	2.0%	5.2%	5.4%	5.2%	-16.3%	-16.4%	-28.9%	5.2%	3.1%					4.8%	0.4%	9.5%	6.1%	9.6%	5.2%	3.6%	-32.6%	-89.3%	6.5%	-9.5%	23.1%	3.5%	-2.6%	12.8%	9.6%	-2.5%	7.7%
Hong Kong	4.8%	1.6%	5.6%	8.6%				8.6%	6.4%																		14.6%	7.7%	17.1%	5.7%	3.0%
Ireland	-1.0%	9.2%	4.8%	5.9%				5.9%	1.5%														5.0%	4.3%	3.6%	11.2%	0.3%	13.2%	11.8%	-5.2%	10.8%
Italy	0.6%	1.9%	3.5%	1.4%				1.4%	-0.4%														6.1%	-12.8%	18.9%	0.0%	-14.1%	15.9%	8.3%	-3.4%	2.5%
Japan	1.0%	6.8%	1.2%	3.8%	4.0%	3.1%	2.6%	3.8%	3.1%										-3.9%	-1.0%	4.6%	2.6%	10.4%	-24.8%	29.5%	7.1%	3.2%	18.6%	-5.3%	-4.8%	8.3%
Netherlands	4.2%	5.0%	4.9%	6.8%	5.5%	4.8%	3.5%	6.8%	1.6%											5.4%	0.4%	1.3%	1.9%	2.3%	12.6%	2.0%	-1.4%	17.1%	17.8%	-4.7%	7.1%
New Zealand	11.8%	12.9%	7.5%	5.6%	6.3%	6.0%	6.2%	5.6%	8.0%								11.2%	3.3%	4.4%	7.0%	3.6%	5.7%	6.3%	5.6%	6.4%	11.3%	-5.5%	10.3%	6.3%	3.4%	12.6%
Norway	3.8%	4.2%	6.6%	5.4%				5.4%	6.6%																		5.2%	5.4%	7.3%	5.2%	7.4%
Portugal	3.8%	0.6%	3.3%						-0.5%																				5.1%	-1.9%	0.3%
Spain	-10.8%	-3.6%	3.4%	2.0%				2.0%	-1.2%																7.1%	12.6%	-13.9%	16.0%	14.1%	1.3%	-0.5%
Sweden	6.9%	7.7%	9.1%	9.4%	7.5%	5.6%	3.1%	9.4%	6.7%									8.5%	8.3%	4.7%	-8.2%	8.4%	-0.9%	6.5%	11.3%	4.1%	-2.0%	23.0%	15.6%	-0.6%	10.1%
Switzerland	6.2%	8.1%	6.9%	5.5%	6.3%			5.5%	4.3%													13.3%	4.0%	4.7%	11.0%	2.0%	-2.8%	7.0%	13.6%	0.2%	8.7%
UK	0.8%	2.4%	3.7%	5.5%	6.6%	4.7%	4.1%	5.5%	2.3%	4.6%	6.3%	7.2%	3.7%	6.9%	3.7%	3.9%	5.4%	5.9%	3.0%	-0.2%	-5.8%	12.9%	1.4%	5.9%	12.5%	4.5%	-2.6%	15.9%	11.0%	-0.3%	5.9%
US	10.0%	10.5%	6.7%	6.5%	7.7%	6.4%	6.4%	6.5%	4.4%	11.1%	4.6%	9.1%	3.2%	10.8%	0.1%	13.6%	10.2%	5.7%	5.2%	7.4%	-2.8%	15.9%	1.6%	3.4%	16.7%	5.1%	-1.5%	11.8%	14.8%	-3.4%	11.6%
BOND																														
Australia	4.6%	5.2%	4.9%	4.1%	3.1%	2.3%	1.1%	4.1%	3.6%								5.0%	4.9%	5.6%	1.0%	-3.3%	4.6%	8.3%	-0.2%	-3.1%	1.7%	-2.9%	3.8%	10.4%	3.5%	4.9%
Austria	0.1%	2.3%	3.2%	3.9%				3.9%	2.6%																3.0%	2.7%	2.0%	4.8%	5.9%	3.9%	2.5%
Belgium	0.9%	3.5%	3.8%	4.2%	2.3%	0.6%	-1.8%	4.2%	2.8%					4.9%	5.9%	3.5%	1.4%	4.0%	0.1%	-0.1%			4.6%	-6.9%	2.2%	1.6%	-0.8%	6.9%	8.2%	3.9%	3.2%
Canada	1.5%	2.6%	4.2%	4.1%	3.5%	2.3%	1.1%	4.1%	3.2%							9.8%	8.1%	6.2%	4.6%	-1.5%	-4.5%	6.7%	7.1%	-1.0%	-0.9%	1.0%	-0.7%	6.8%	8.4%	4.6%	1.9%
Denmark	1.7%	3.0%	4.1%	5.7%	4.5%	3.1%	1.3%	5.7%	3.0%	-1.7%	-20.4%	18.3%	4.4%	3.9%	3.7%	4.2%	6.1%	5.6%	3.4%	2.6%	-7.3%	7.6%	4.0%	3.7%	0.6%	-1.4%	0.5%	11.7%	9.0%	4.1%	3.4%
France	1.1%	3.1%	4.0%	4.0%	-0.1%	-1.2%	-4.7%	4.0%	3.0%	20.1%	5.2%	11.7%	3.3%	0.3%	6.3%	4.3%	5.6%	4.7%	4.6%	2.7%	-11.5%	0.1%	0.8%	-22.4%	-0.2%	0.4%	-2.8%	7.3%	8.2%	4.0%	3.4%
Germany	0.7%	2.6%	3.6%	4.3%				4.3%	2.9%														9.3%	-20.4%	3.6%	3.4%	3.0%	5.3%	6.1%	4.1%	2.8%
Hong Kong	2.5%	1.2%	3.4%						3.1%																					5.8%	-0.7%
Ireland	2.4%	9.7%	4.9%	4.5%				4.5%	3.8%														3.1%	1.9%	0.9%	-0.9%	-6.7%	8.8%	8.0%	2.5%	6.8%
Italy	3.1%	5.6%	5.5%	3.9%	-1.2%	-1.8%	-5.5%	3.9%	3.4%		11.9%	9.2%	7.2%	18.9%	4.0%	0.4%	10.7%	7.1%	6.1%	4.3%	-8.7%	-5.2%	5.5%	-29.8%	-0.6%	1.3%	-5.6%	6.3%	9.9%	3.4%	4.8%
Japan	0.1%	0.8%	2.0%	2.8%	-0.2%	-0.6%	-3.0%	2.8%	1.7%									10.3%	-1.4%	2.7%	-7.3%	12.3%	1.6%	-32.6%	4.7%	5.4%	-1.8%	6.7%	6.1%	2.1%	1.1%
Netherlands	0.6%	2.5%	3.3%	3.8%	2.7%	1.5%	-0.1%	3.8%	2.6%	-2.3%	-2.0%	10.8%	3.0%	7.0%	5.5%	2.6%	5.8%	8.3%	3.4%	0.8%	-6.2%	8.1%	5.8%	-3.0%	-3.4%	-2.0%	0.3%	6.7%	6.2%	3.6%	2.8%
New Zealand	5.8%	6.3%	5.3%	3.0%	2.7%	1.9%	1.0%	3.0%	4.6%								8.1%	7.6%	5.0%	0.8%	-3.9%	7.3%	5.3%	2.3%	-4.9%	1.4%	-8.3%	3.3%	9.9%	4.3%	5.7%
Norway	0.7%	2.7%	3.3%	3.2%	3.4%	1.9%	1.0%	3.2%	2.9%				4.1%	3.1%	2.1%	4.6%	6.9%	5.2%	0.9%	2.9%	-10.2%	11.7%	3.1%	9.0%	-8.2%	1.2%	-3.7%	4.6%	8.3%	3.5%	2.4%
Portugal	5.0%	8.7%	6.2%	1.8%				1.8%	4.6%															-4.6%	3.0%	-1.3%	-13.9%	2.4%	11.4%	3.3%	7.6%
Spain	3.1%	6.4%	5.0%	3.6%	1.4%	1.6%	0.3%	3.6%	3.1%		-20.3%	20.9%	7.4%	0.0%	10.8%	3.5%	-0.7%	14.3%	6.3%	7.6%	-0.7%	4.8%	1.3%	-5.7%	-2.9%	-0.9%	-7.1%	6.4%	10.6%	2.7%	5.0%
Sweden	0.4%	2.1%	3.7%	3.1%	2.8%	1.9%	1.0%	3.1%	2.5%							4.3%	5.8%	5.5%	2.3%	2.1%	-6.8%	11.0%	3.4%	0.2%	-1.9%	0.0%	-2.5%	3.8%	8.6%	3.7%	2.1%
Switzerland	1.6%	2.9%	3.1%	2.3%	2.7%	1.8%	1.5%	2.3%	2.8%											2.4%	-6.9%	9.5%	5.5%	-0.4%	1.5%	-0.3%	0.8%	0.6%	3.7%	3.3%	2.9%
UK	1.5%	2.1%	3.9%	3.6%	2.8%	1.4%	-0.1%	3.6%	2.7%	2.7%	5.0%	9.7%	2.7%	5.9%	3.3%	2.3%	4.3%	3.1%	2.9%	0.5%	-8.1%	8.4%	6.6%	-0.8%	-3.1%	-2.0%	-4.3%	6.7%	8.4%	4.0%	2.4%
US	3.4%	3.1%	3.3%	3.4%	2.7%	1.7%	0.5%	3.4%	2.9%	8.7%	5.9%	7.8%	0.1%	10.8%	3.6%	2.7%	8.6%	5.5%	3.3%	-0.7%	-4.7%	6.6%	6.3%	-2.6%	-1.8%	-0.2%	-1.2%	7.3%	4.9%	3.7%	2.3%

Note: 2020 data to 31 Jul 2020
Source : Deutsche Bank, GFD

Figure 64: Developed market USD equity and bond returns (annualised)

										Returns by Decade																			
	Last 5yrs	Last 10yrs	Last 25yrs	Last 50yrs	Last 100yrs	since 1900	1900-1970	since 1971	since 1999	1800-1809	1810-1819	1820-1829	1830-1839	1840-1849	1850-1859	1860-1869	1870-1879	1880-1889	1890-1899	1900-1909	1910-1919	1920-1929	1930-1939	1940-1949	1950-1959	1960-1969	1970-1979	1980-1989	1990-1999	2000-2009	2010-2019
EQUITY																														
Australia	5.8%	2.8%	8.3%	9.9%	10.6%	10.5%	10.9%	9.9%	8.7%										8.0%	13.6%	6.9%	18.5%	5.5%	6.4%	15.3%	14.0%	8.5%	13.8%	9.0%	12.4%	5.2%
Austria	1.8%	-1.8%	4.2%	7.9%				7.9%	4.3%																		14.6%	16.8%	0.0%	11.3%	2.9%
Belgium	-2.2%	2.4%	5.3%	9.6%	6.6%	5.6%	2.9%	9.6%	2.5%											6.4%	-1.0%	-3.0%	-5.3%	6.3%	14.0%	3.4%	13.5%	17.8%	10.1%	5.4%	4.6%
Canada	8.1%	1.8%	7.7%	8.5%	9.1%	8.6%	8.7%	8.5%	7.5%				48.8%	9.6%	5.4%	4.1%	3.0%	6.1%	6.0%	9.8%	5.2%	15.4%	0.0%	8.5%	15.1%	8.7%	9.5%	12.3%	8.1%	9.0%	4.7%
Denmark	9.8%	11.1%	12.2%	13.4%	9.5%	7.6%	3.7%	13.4%	11.0%									4.8%	2.8%	2.1%	-0.5%	2.6%	1.3%	4.0%	11.2%	6.5%	11.5%	21.3%	9.8%	10.5%	11.8%
France	5.3%	4.8%	7.1%	9.7%	7.3%	6.1%	3.6%	9.7%	4.9%		7.6%	7.7%	9.5%	7.1%	16.9%	7.7%	5.7%	6.4%	6.2%	5.7%	0.3%	7.5%	-6.9%	-1.7%	19.9%	3.2%	10.3%	17.6%	12.9%	3.3%	6.1%
Germany	5.0%	5.2%	6.3%	9.6%	-17.0%	-17.1%	-31.8%	9.6%	4.6%					3.6%	4.3%	13.2%	5.8%	10.0%	5.1%	5.6%	-36.5%	-90.5%	10.0%	-29.1%	25.9%	7.3%	10.3%	16.1%	10.5%	2.7%	6.5%
Hong Kong	5.9%	4.3%	7.2%	13.6%				13.6%	7.7%																		26.8%	11.8%	24.3%	6.0%	6.2%
Ireland	1.0%	8.4%	6.1%	10.3%	9.4%	7.4%	5.4%	10.3%	3.1%			-7.7%	4.5%	1.7%	13.9%	6.9%	6.3%	4.1%	5.6%	2.2%	-3.0%	9.5%	3.6%	6.0%	7.4%	14.2%	12.2%	19.2%	12.2%	0.7%	8.7%
Italy	2.7%	1.6%	5.1%	5.4%				5.4%	1.3%														6.1%	-7.6%	23.6%	3.6%	-5.4%	22.3%	8.0%	2.4%	1.2%
Japan	4.0%	4.6%	1.2%	8.9%	6.5%	6.2%	4.4%	8.9%	3.4%										-2.1%	2.5%	14.3%	-1.4%	6.1%	-25.6%	33.9%	13.0%	16.9%	27.7%	-0.9%	-4.2%	7.2%
Netherlands	7.7%	5.4%	6.3%	11.6%	8.9%	8.3%	6.0%	11.6%	3.6%											7.5%	6.7%	0.0%	3.4%	2.9%	17.0%	6.5%	12.7%	20.2%	19.0%	0.9%	6.2%
New Zealand	12.6%	12.4%	9.7%	10.4%	9.3%	8.7%	7.6%	10.4%	11.3%								6.8%	1.8%	3.6%	8.6%	5.4%	8.1%	6.5%	2.6%	11.3%	12.5%	4.5%	16.9%	6.9%	9.7%	13.5%
Norway	5.6%	1.6%	7.1%	9.4%				9.4%	7.9%																		18.4%	10.7%	7.8%	10.9%	5.0%
Portugal	6.2%	0.2%	4.7%						1.2%																				7.9%	4.2%	-1.0%
Spain	-8.8%	-4.1%	4.8%	6.8%				6.8%	0.8%																3.8%	17.3%	-0.7%	21.2%	13.9%	8.0%	-1.8%
Sweden	7.7%	6.0%	9.3%	13.0%	10.1%	8.5%	5.5%	13.0%	7.9%									7.9%	9.2%	5.7%	-0.5%	6.0%	-1.5%	8.2%	16.3%	8.1%	9.1%	27.2%	15.4%	3.0%	8.5%
Switzerland	8.4%	8.2%	8.3%	11.2%	10.1%			11.2%	6.7%													10.7%	4.1%	9.8%	12.3%	5.3%	12.7%	11.0%	15.6%	5.6%	9.3%
UK	0.1%	2.4%	5.2%	9.7%	9.0%	7.2%	5.5%	9.7%	3.2%	8.1%	5.6%	5.5%	4.3%	4.8%	3.9%	6.4%	2.9%	5.5%	3.1%	0.6%	-1.1%	12.4%	-0.2%	5.2%	17.2%	6.7%	9.3%	20.0%	14.9%	1.6%	6.0%
US	11.9%	12.2%	8.9%	10.5%	10.5%	9.6%	9.0%	10.5%	6.5%	11.1%	4.9%	6.9%	5.3%	7.8%	1.6%	18.3%	7.7%	5.7%	5.4%	9.9%	4.3%	14.8%	-0.5%	9.0%	19.3%	7.8%	5.8%	17.5%	18.2%	-0.9%	13.6%
BOND																															
Australia	5.3%	3.2%	7.0%	8.3%	6.1%	5.1%	2.9%	8.3%	6.9%							7.2%	3.2%	5.1%	4.1%	2.1%	-0.8%	8.1%	2.6%	1.5%	3.1%	4.2%	6.8%	8.7%	10.9%	10.1%	4.5%
Austria	3.2%	2.8%	4.4%	8.8%				8.8%	4.5%														2.3%	-17.4%	7.9%	6.3%	16.3%	9.2%	7.0%	9.6%	2.0%
Belgium	4.1%	3.8%	5.1%	8.6%	5.8%	3.9%	0.7%	8.6%	4.8%					3.6%	6.3%	6.9%	3.2%	4.9%	3.4%	2.9%	-8.3%	-3.7%	5.8%	-0.3%	4.3%	4.5%	12.6%	9.4%	9.2%	9.8%	2.5%
Canada	3.8%	1.1%	6.1%	7.5%	6.0%	5.2%	3.5%	7.5%	5.7%							8.0%	3.3%	6.6%	3.2%	2.3%	0.9%	6.5%	4.1%	3.6%	3.2%	2.4%	5.9%	13.5%	8.2%	10.2%	1.5%
Denmark	4.1%	2.5%	5.2%	10.4%	8.0%	6.5%	3.8%	10.4%	4.6%			10.5%	6.8%	4.2%	5.7%	6.5%	3.9%	5.0%	3.2%	3.7%	-2.1%	10.2%	2.5%	5.2%	4.5%	3.2%	13.9%	16.5%	10.0%	9.9%	2.0%
France	4.0%	3.0%	5.0%	8.2%	2.9%	1.6%	-2.9%	8.2%	4.5%		3.7%	12.2%	4.0%	0.3%	7.1%	7.0%	4.0%	4.5%	4.4%	3.1%	-8.2%	-0.6%	-1.9%	-16.3%	1.9%	3.0%	9.6%	10.7%	8.8%	9.7%	2.2%
Germany	3.7%	2.5%	4.5%	8.6%				8.6%	4.4%														13.0%	-37.6%	5.9%	7.1%	16.7%	8.4%	7.0%	9.6%	1.7%
Hong Kong	3.6%	3.9%	4.9%						4.4%																					6.1%	2.4%
Ireland	4.4%	8.9%	6.3%	8.9%	6.3%	4.9%	2.3%	8.9%	5.4%								1.9%	2.7%	3.0%	1.3%	-3.1%	9.4%	1.7%	3.5%	4.6%	1.8%	4.3%	14.6%	8.4%	8.8%	4.8%
Italy	5.3%	5.2%	7.2%	7.9%	2.9%	1.6%	-2.7%	7.9%	5.2%			11.8%	7.5%	18.1%	6.9%	2.3%	9.5%	7.6%	5.4%	5.8%	-7.5%	-0.8%	5.5%	-25.7%	3.4%	4.9%	3.9%	12.1%	9.6%	9.6%	3.5%
Japan	3.1%	-1.3%	2.1%	7.8%	2.2%	2.4%	-1.2%	7.8%	2.1%									5.2%	0.4%	6.3%	1.2%	7.9%	-2.4%	-33.4%	8.2%	11.3%	11.2%	14.9%	11.0%	2.8%	0.1%
Netherlands	4.0%	2.8%	4.7%	8.5%	6.0%	4.9%	2.4%	8.5%	4.5%	0.1%	-3.9%	9.3%	3.2%	5.5%	6.2%	4.2%	3.9%	6.3%	2.6%	2.7%	-0.3%	6.8%	7.3%	-2.5%	0.3%	2.3%	14.7%	9.6%	7.3%	9.6%	1.9%
New Zealand	6.6%	5.8%	7.4%	7.7%	5.6%	4.5%	2.4%	7.7%	7.8%								3.9%	6.0%	4.2%	2.4%	-2.2%	9.6%	5.5%	-0.6%	-0.5%	2.5%	1.3%	9.4%	10.5%	10.7%	6.6%
Norway	2.5%	0.2%	3.9%	7.2%	6.1%	4.8%	3.2%	7.2%	4.1%				7.5%	4.7%	3.9%	5.4%	4.7%	4.9%	1.8%	3.7%	-2.6%	9.9%	2.5%	8.0%	-3.6%	4.8%	8.4%	9.8%	8.8%	9.0%	0.2%
Portugal	7.5%	8.3%	7.6%	6.6%	5.9%	3.3%	1.0%	6.6%	6.4%				13.3%	8.5%	12.2%	5.7%	10.6%	7.9%	-8.9%	10.5%	-8.8%	-10.0%	7.7%	2.3%	3.8%	3.1%	-3.9%	7.2%	14.4%	9.7%	6.2%
Spain	5.5%	5.8%	6.4%	8.5%	4.1%	4.3%	1.4%	8.5%	5.1%			16.7%	11.7%	-2.6%	12.3%	5.2%	-2.3%	13.9%	3.5%	10.9%	3.9%	1.6%	3.2%	-5.7%	-5.9%	3.2%	7.1%	11.1%	10.4%	9.5%	3.6%
Sweden	1.1%	0.4%	3.9%	6.4%	5.3%	4.6%	3.4%	6.4%	3.6%							6.8%	3.8%	5.0%	3.2%	3.1%	1.0%	8.5%	2.8%	1.8%	2.5%	3.9%	8.5%	7.3%	8.4%	7.5%	0.6%
Switzerland	3.7%	2.9%	4.6%	7.8%	6.3%	5.5%	3.9%	7.8%	5.2%											3.7%	0.7%	6.9%	5.7%	4.5%	2.7%	2.9%	16.9%	4.3%	5.6%	8.9%	3.6%
UK	0.8%	2.2%	5.3%	7.7%	5.2%	3.9%	1.3%	7.7%	3.6%	6.1%	4.4%	8.0%	3.3%	3.7%	3.4%	4.8%	1.9%	2.7%	3.0%	1.2%	-3.5%	8.0%	4.9%	-1.5%	0.9%	0.0%	7.3%	10.6%	12.2%	6.0%	2.5%
US	5.2%	4.7%	5.4%	7.3%	5.4%	4.7%	2.9%	7.3%	5.0%	8.7%	6.2%	5.7%	2.1%	7.8%	5.3%	7.0%	6.1%	5.5%	3.4%	1.6%	2.3%	5.6%	4.1%	2.6%	0.4%	2.4%	6.1%	12.8%	8.0%	6.4%	4.1%

Note: 2020 data to 31 Jul 2020
Source : Deutsche Bank, GFD

Figure 65: Emerging market nominal equity and bond returns (annualised)

										Returns by Decade																				
	Last 5yrs	Last 10yrs	Last 25yrs	Last 50yrs	Last 100yrs	since 1900	1900-1970	since 1971	since 1999	1800-1809	1810-1819	1820-1829	1830-1839	1840-1849	1850-1859	1860-1869	1870-1879	1880-1889	1890-1899	1900-1909	1910-1919	1920-1929	1930-1939	1940-1949	1950-1959	1960-1969	1970-1979	1980-1989	1990-1999	2000-2009	2010-2019
EQUITY																														
China	-1.3%	3.8%	9.5%						6.9%																				11.1%	2.5%
India	8.1%	7.3%	11.9%	18.0%	12.1%	10.5%	5.6%	18.0%	13.6%	5.6%	6.3%	5.9%	4.2%	5.4%	3.8%	10.1%	8.9%	8.2%	5.7%	3.7%	3.9%	8.0%	3.0%	2.4%	12.0%	5.7%	18.0%	28.7%	21.1%	15.2%	10.2%
Korea	8.0%	3.6%	7.6%	16.6%				16.6%	10.0%																		40.7%	29.2%	4.6%	9.9%	5.5%
Malaysia	1.9%	3.6%	5.0%						8.0%																			12.8%	5.6%	7.8%	5.4%
Mexico	-0.9%	1.5%	12.7%						12.5%																				35.9%	18.3%	5.1%
Philippines	-2.0%	5.3%	4.7%						6.5%																				9.3%	5.1%	10.8%
Russia	15.1%	1.2%	12.6%						14.9%																					16.6%	5.6%
South Africa	4.8%	8.9%	11.8%	16.6%	13.4%	11.5%	8.0%	16.6%	14.2%					-10.4%	13.8%	7.3%	16.1%	9.0%	1.7%	2.4%	6.5%	9.8%	11.0%	10.7%	5.5%	14.6%	16.0%	24.1%	13.9%	14.7%	11.2%
Taiwan	13.5%	8.3%	7.7%						7.1%																				3.9%	0.9%	9.2%
Thailand	3.7%	5.9%	3.3%						10.5%																			27.3%	-2.4%	8.8%	11.8%
BOND																														
China	2.8%	4.2%							4.8%																				5.9%	4.0%
India	9.5%	8.2%	9.3%	7.9%	6.7%	5.6%	4.0%	7.9%	8.3%	5.7%	6.5%	5.4%	5.6%	4.6%	4.6%	4.5%	4.4%	4.2%	3.4%	2.3%	-0.3%	5.6%	7.7%	6.0%	3.0%	4.2%	4.9%	4.4%	14.1%	8.5%	7.2%
Korea	3.3%	5.3%	8.0%	14.6%				14.6%	6.7%																	28.5%	27.2%	22.1%	15.7%	8.4%	6.2%
Malaysia	6.2%	4.9%	5.5%	7.4%				7.4%	5.4%																		11.3%	9.0%	7.6%	5.5%	4.7%
Mexico	7.3%	7.1%	13.8%						11.6%																					14.5%	7.2%
Philippines	6.9%	7.4%							13.3%																					16.3%	7.9%
Russia	12.9%	9.6%							17.1%																					16.8%	10.0%
South Africa	9.2%	7.6%	11.1%	11.5%	8.0%	7.2%	4.2%	11.5%	10.9%								4.6%	5.6%	3.7%	4.8%	2.0%	4.8%	4.8%	3.5%	5.3%	4.9%	7.4%	11.0%	17.9%	12.1%	8.7%
Taiwan	2.0%	2.0%	4.6%						4.0%																					6.9%	1.6%
Thailand	4.4%	4.6%	8.4%						6.8%																			13.6%	13.7%	7.9%	5.4%

Note: 2020 data to 31 Jul 2020. Source : Deutsche Bank, GFD

Figure 66: Emerging market real equity and bond returns (annualised)

										Returns by Decade																				
	Last 5yrs	Last 10yrs	Last 25yrs	Last 50yrs	Last 100yrs	since 1900	1900-1970	since 1971	since 1999	1800-1809	1810-1819	1820-1829	1830-1839	1840-1849	1850-1859	1860-1869	1870-1879	1880-1889	1890-1899	1900-1909	1910-1919	1920-1929	1930-1939	1940-1949	1950-1959	1960-1969	1970-1979	1980-1989	1990-1999	2000-2009	2010-2019
EQUITY																														
China	-1.2%	2.6%	7.7%						5.3%																				8.9%	-0.1%
India	3.9%	1.5%	5.2%	9.6%	6.7%	5.4%	2.6%	9.6%	7.3%									7.1%	6.1%	2.8%	-1.3%	7.4%	6.2%	-6.8%	10.5%	-0.1%	9.6%	18.3%	10.6%	8.6%	3.5%
Korea	7.1%	2.2%	4.9%	9.9%				9.9%	7.6%																		22.3%	20.3%	-0.9%	6.5%	3.8%
Malaysia	1.0%	1.8%	2.7%						5.9%																			9.0%	1.7%	5.5%	3.2%
Mexico	-4.5%	-2.1%	5.9%						7.5%																				13.7%	12.7%	1.1%
Philippines	-4.7%	2.2%	0.1%						2.3%																				0.5%	-0.2%	7.4%
Russia	11.1%	-4.7%	-0.7%						3.9%																					3.1%	-1.0%
South Africa	0.5%	3.9%	5.9%	7.0%	7.8%	6.3%	5.7%	7.0%	8.5%											3.6%	1.3%	9.4%	11.6%	5.6%	1.8%	11.7%	5.4%	8.3%	4.2%	8.1%	5.8%
Taiwan	14.3%	8.2%	6.9%						6.5%																				1.0%	0.0%	8.2%
Thailand	3.2%	4.8%	1.0%						8.5%																			21.1%	-6.9%	6.1%	10.2%
BOND																														
China	0.8%	2.0%							2.7%																					3.8%	1.3%
India	5.2%	2.3%	2.7%	0.2%	1.6%	0.7%	1.1%	0.2%	2.3%									3.2%	3.8%	1.3%	-5.3%	5.0%	11.1%	-3.6%	1.6%	-1.6%	-2.6%	-4.0%	4.2%	2.3%	0.7%
Korea	2.4%	4.0%	5.3%	7.9%				7.9%	4.4%																	13.4%	10.5%	13.6%	9.6%	5.1%	4.4%
Malaysia	5.3%	3.2%	3.3%	3.9%				3.9%	3.4%																		5.4%	5.4%	3.6%	3.2%	2.6%
Mexico	3.4%	3.4%	6.9%						6.6%																					9.1%	3.1%
Philippines	3.9%	4.2%							8.9%																					10.5%	4.6%
Russia	9.0%	3.3%							5.9%																					3.2%	3.1%
South Africa	4.8%	2.6%	5.3%	2.4%	2.7%	2.2%	2.0%	2.4%	5.4%											6.0%	-3.0%	4.4%	5.3%	-1.2%	1.6%	2.2%	-2.4%	-3.2%	7.9%	5.7%	3.4%
Taiwan	1.3%	1.1%	3.6%						3.1%																					5.9%	0.6%
Thailand	3.9%	3.5%	6.0%						4.9%																			8.1%	8.5%	5.3%	3.9%

Note: 2020 data to 31 Jul 2020. Source : Deutsche Bank, GFD

Figure 67: Emerging market USD equity and bond returns (annualised)

										Returns by Decade																			
	Last 5yrs	Last 10yrs	Last 25yrs	Last 50yrs	Last 100yrs	since 1900	1900-1970	since 1971	since 1999	1800-1809	1810-1819	1820-1829	1830-1839	1840-1849	1850-1859	1860-1869	1870-1879	1880-1889	1890-1899	1900-1909	1910-1919	1920-1929	1930-1939	1940-1949	1950-1959	1960-1969	1970-1979	1980-1989	1990-1999	2000-2009	2010-2019
EQUITY																														
China	-2.7%	3.2%	10.3%						7.8%																				13.3%	2.3%
India	5.5%	1.9%	8.6%	12.7%	8.8%	7.7%	4.2%	12.7%	10.7%				5.5%	4.5%	4.2%	11.8%	4.7%	6.7%	5.2%	3.8%	7.2%	5.8%	1.0%	-1.2%	11.9%	1.0%	17.4%	19.4%	10.2%	14.5%	5.6%
Korea	7.7%	2.9%	5.8%	13.6%				13.6%	10.0%																		34.3%	24.9%	-0.7%	9.6%	5.6%
Malaysia	2.2%	0.3%	2.9%						7.5%																			10.4%	2.1%	8.9%	3.6%
Mexico	-5.9%	-4.3%	8.0%						8.4%																				19.8%	14.5%	1.3%
Philippines	-2.9%	4.0%	2.1%						5.3%																				2.3%	3.6%	9.8%
Russia	14.7%	-7.4%	0.8%						8.5%																					15.4%	-1.6%
South Africa	2.8%	-0.9%	5.1%	9.4%	9.6%	8.1%	7.1%	9.4%	8.8%					-10.5%	14.0%	9.4%	13.9%	9.0%	1.8%	2.3%	3.8%	12.8%	8.7%	6.9%	5.4%	14.6%	14.3%	11.0%	4.2%	12.6%	4.3%
Taiwan	16.0%	8.3%	7.4%						7.6%																				2.0%	0.7%	10.0%
Thailand	6.7%	5.5%	2.4%						11.2%																			24.3%	-6.0%	10.0%	13.1%
BOND																														
China	1.3%	3.6%							5.7%																				7.9%	3.8%
India	6.9%	2.8%	6.0%	3.0%	3.5%	2.9%	2.7%	3.0%	5.6%				6.9%	3.8%	5.0%	6.0%	0.5%	2.7%	2.9%	2.3%	2.8%	3.5%	5.7%	2.2%	2.9%	-0.5%	4.3%	-3.2%	3.8%	7.8%	2.7%
Korea	2.9%	4.7%	6.2%	11.6%				11.6%	6.7%																	7.3%	21.4%	18.0%	9.9%	8.1%	6.2%
Malaysia	6.5%	1.6%	3.4%	6.7%				6.7%	4.9%																		15.1%	6.7%	3.9%	6.6%	2.9%
Mexico	1.9%	1.0%	9.1%						7.5%																					10.9%	3.3%
Philippines	5.9%	6.1%							12.1%																					14.6%	7.0%
Russia	12.6%	0.3%							10.5%																					15.6%	2.4%
South Africa	7.2%	-2.1%	4.5%	4.7%	4.4%	3.9%	3.4%	4.7%	5.7%								2.6%	5.6%	3.8%	4.8%	-0.6%	7.6%	2.6%	0.0%	5.3%	4.9%	5.9%	-0.7%	7.9%	10.1%	2.0%
Taiwan	4.3%	1.9%	4.3%						4.4%																					6.7%	2.3%
Thailand	7.5%	4.2%	7.5%						7.5%																			10.9%	9.5%	9.1%	6.6%

Note: 2020 data to 31 Jul 2020. Source : Deutsche Bank, GFD

Figure 68: Developed market nominal and real GDP growth for different time horizons

										Growth by Decade																			
	Last 5yrs	Last 10yrs	Last 25yrs	Last 50yrs	Last 100yrs	since 1900	1900-1970	since 1971	since 1999	1800-1809	1810-1819	1820-1829	1830-1839	1840-1849	1850-1859	1860-1869	1870-1879	1880-1889	1890-1899	1900-1909	1910-1919	1920-1929	1930-1939	1940-1949	1950-1959	1960-1969	1970-1979	1980-1989	1990-1999	2000-2009	2010-2019
Nominal GDP																														
Australia	4.3%	4.7%	5.8%	8.4%				8.4%	5.8%																8.0%	13.8%	11.8%	5.1%	7.1%	4.7%
Austria	3.6%	3.3%	3.5%	5.8%		15.4%	22.7%	5.6%	3.6%									0.8%	2.5%	11.5%				13.4%	8.6%	10.9%	6.3%	4.8%	3.5%	3.3%
Belgium	3.3%	3.2%	3.6%	5.8%		7.2%	8.3%	5.7%	3.5%					0.0%	4.5%	4.0%	1.4%	1.0%	1.2%	1.8%			21.7%	4.6%	8.0%	11.0%	6.6%	4.6%	3.6%	3.2%
Canada	3.3%	4.1%	4.4%	6.8%	6.5%	6.9%	6.9%	6.8%	4.5%									4.2%	2.3%	8.5%	8.7%	4.1%	-0.9%	11.9%	8.3%	8.4%	13.0%	8.6%	4.3%	4.4%	4.1%
Denmark	3.2%	3.0%	3.4%	6.6%	6.2%	6.5%	6.6%	6.5%	3.2%			-1.8%	2.2%	2.8%	4.4%	3.2%	1.7%	1.6%	3.2%	4.2%	12.3%	0.4%	3.4%	8.8%	7.1%	10.0%	14.0%	8.2%	4.6%	3.3%	3.0%
France	2.4%	2.3%	3.0%	6.4%		9.4%	11.6%	6.3%	2.9%			2.5%	1.0%	1.2%	2.4%	3.6%	-1.0%	1.8%	1.7%	2.1%			4.3%	32.5%	11.7%	10.1%	13.9%	9.6%	3.6%	3.3%	2.3%
Germany	3.3%	3.5%	2.7%	4.7%	39.6%	34.1%	59.3%	4.5%	2.7%							3.7%	3.6%	3.2%	3.4%	3.4%	16.9%	1337.5%	2.9%	23.7%	10.9%	10.0%	8.8%	4.8%	4.7%	1.7%	3.5%
Greece	1.0%	-2.4%	3.9%	11.6%	50.6%	43.5%	71.0%	11.3%	2.8%					-0.1%	7.4%	1.5%	4.0%	4.5%	2.1%	2.4%	23.7%	18.8%	5.4%	2088.2%	14.5%	10.6%	20.6%	20.3%	13.2%	7.8%	-2.4%
Hong Kong	4.9%	5.6%	4.1%	10.8%				10.7%	3.8%																11.2%	21.0%	16.9%	9.1%	2.6%	5.6%
Ireland	12.8%	7.7%	8.5%	11.1%	7.4%	6.9%	4.1%	11.1%	7.5%								0.6%	0.2%	1.3%	-0.5%	9.9%	2.6%	0.8%	1.4%	5.2%	9.0%	18.4%	12.4%	11.1%	6.2%	7.7%
Italy	1.9%	1.3%	3.0%	8.8%	11.3%	10.9%	12.7%	8.4%	2.4%								1.3%	1.2%	1.0%	3.6%	15.1%	7.2%	1.6%	47.0%	9.9%	8.8%	19.5%	14.6%	6.6%	3.0%	1.3%
Japan	2.6%	1.6%	0.4%	4.3%	11.0%	10.8%	15.7%	4.1%	0.4%										9.3%	5.0%	15.1%	0.5%	6.7%	58.8%	15.1%	17.1%	13.0%	6.1%	2.1%	-0.7%	1.6%
Netherlands	3.8%	2.6%	4.2%	6.0%	6.0%	6.2%	6.5%	5.8%	3.9%		1.1%	0.5%	2.4%	-0.9%	1.7%	3.3%	1.3%	1.8%	1.2%	3.0%	11.4%	1.6%	-2.2%	13.1%	7.9%	10.5%	13.1%	4.3%	6.2%	4.1%	2.6%
New Zealand	5.3%	4.9%	5.1%	8.6%	7.4%	7.3%	6.6%	8.5%	5.3%							13.4%	6.4%	0.8%	1.6%	5.8%	8.6%	0.7%	5.0%	9.6%	8.4%	7.5%	14.4%	14.0%	4.2%	5.6%	4.9%
Norway	2.5%	3.9%	5.7%	8.2%	6.6%	7.0%	6.3%	8.1%	5.5%					1.1%	5.0%	3.6%	2.1%	1.5%	3.3%	2.1%	16.8%	-3.5%	3.7%	8.1%	8.9%	8.4%	14.4%	10.3%	5.9%	6.8%	3.9%
Portugal	4.2%	1.9%	4.4%	11.0%	7.7%	7.1%	4.4%	11.0%	3.3%									3.2%	2.0%	1.4%	7.0%	-0.9%	1.4%	7.6%	5.6%	8.4%	16.0%	23.7%	11.1%	3.9%	1.9%
Spain	3.8%	1.5%	4.6%	9.5%	9.4%	8.7%	8.2%	9.3%	4.1%							-0.2%	4.4%	0.3%	1.1%	2.3%	7.4%	3.6%	1.7%	13.3%	15.4%	13.8%	19.5%	13.5%	7.8%	6.0%	1.5%
Sweden	4.7%	4.2%	4.3%	7.2%	6.4%	6.6%	6.3%	7.1%	4.1%	5.9%	4.9%	0.1%	2.6%	1.2%	3.8%	2.3%	3.4%	1.2%	4.2%	3.0%	13.4%	-1.8%	3.7%	8.1%	8.9%	9.1%	11.7%	11.4%	5.1%	4.0%	4.2%
Switzerland	1.5%	1.7%	2.3%	4.4%	4.7%	4.8%	5.2%	4.3%	2.4%							2.1%	2.5%	0.9%	4.1%	3.5%	7.0%	3.7%	-1.0%	7.5%	6.2%	9.1%	6.9%	7.6%	2.8%	3.1%	1.7%
UK	3.5%	3.7%	4.1%	7.9%	6.1%	6.1%	4.9%	7.8%	3.9%	3.2%	0.2%	0.2%	3.1%	0.0%	2.9%	3.5%	1.7%	2.1%	2.5%	1.3%	10.3%	-2.0%	2.3%	7.6%	7.1%	7.3%	16.0%	10.8%	5.4%	4.1%	3.7%
US	4.0%	4.0%	4.4%	6.3%	5.7%	6.1%	6.0%	6.3%	4.1%	1.8%	4.2%	1.8%	7.9%	1.3%	6.1%	6.4%	1.7%	3.9%	3.4%	6.7%	9.7%	2.2%	-1.1%	11.2%	6.9%	7.0%	10.1%	7.8%	5.6%	4.0%	4.0%
Real GDP																														
Australia	2.4%	2.6%	3.1%	3.2%				3.2%	2.9%				6.8%	10.7%	12.1%											3.3%	3.7%	3.5%	3.1%	2.6%
Austria	1.9%	1.6%	2.1%	2.7%	3.2%	3.4%	3.8%	2.7%	1.7%									1.5%	2.6%	9.8%	-1.5%	5.4%	1.0%	-1.2%	10.7%	3.2%	5.2%	1.8%	3.3%	1.7%	1.6%
Belgium	1.7%	1.6%	2.4%	2.5%	2.4%	2.1%	1.9%	2.4%	1.8%						2.7%	2.6%	1.9%	2.4%	1.8%	2.0%	-1.4%	4.6%	0.6%	0.0%	2.0%	4.8%	3.5%	1.9%	3.5%	1.8%	1.6%
Canada	3.5%	3.1%	2.8%	3.0%	3.6%	3.7%	4.3%	3.0%	2.7%									3.5%	3.2%	5.9%	2.8%	4.6%	0.5%	5.9%	5.3%	5.2%	4.1%	2.9%	2.6%	2.1%	3.1%
Denmark	2.5%	1.8%	1.7%	1.8%	2.6%	2.6%	3.2%	1.8%	1.5%				1.1%	2.9%	1.7%	2.0%	2.2%	2.1%	3.2%	3.3%	1.8%	3.7%	2.5%	1.9%	3.6%	5.5%	2.0%	1.4%	2.7%	1.0%	1.8%
France	1.6%	1.4%	1.6%	2.4%	2.8%	2.3%	2.3%	2.3%	1.5%				1.4%	2.1%	1.5%	1.7%	-0.3%	2.0%	2.4%	1.0%	-1.8%	7.0%	-1.1%	0.1%	5.0%	5.7%	4.5%	2.6%	2.0%	1.5%	1.4%
Germany	1.6%	1.9%	1.4%	2.1%	3.5%	2.9%	3.5%	2.1%	1.4%							2.6%	1.9%	2.5%	3.4%	2.7%	-2.6%	5.3%	3.3%	2.1%	8.7%	4.8%	3.1%	2.8%	2.2%	0.7%	1.9%
Greece	0.9%	-2.1%	0.8%	1.7%	3.2%	3.2%	4.4%	1.6%	0.4%					-0.5%	4.0%	2.1%	1.9%	4.2%	0.5%	2.4%	4.3%	4.8%	3.8%	0.8%	7.4%	6.8%	5.4%	0.9%	1.7%	2.7%	-2.1%
Hong Kong	2.0%	2.9%	3.1%	6.0%				5.9%	3.5%																	8.5%	9.3%	7.4%	6.3%	4.2%	2.9%
Ireland	9.8%	6.0%	6.1%	5.0%				5.1%	5.1%														0.8%	1.3%	1.4%	4.5%	4.6%	3.0%	8.0%	3.6%	6.0%
Italy	0.9%	0.2%	0.7%	1.9%	2.8%	2.5%	3.0%	1.9%	0.4%								1.0%	1.4%	1.3%	2.7%	0.0%	3.7%	1.5%	0.5%	6.4%	6.4%	4.0%	2.9%	2.0%	0.5%	0.2%
Japan	0.4%	0.9%	0.7%	2.7%	3.5%	3.4%	4.0%	2.6%	0.7%									2.9%	3.0%	1.5%	4.5%	1.8%	4.9%	-4.1%	8.8%	10.7%	5.3%	5.4%	1.6%	0.5%	0.9%
Netherlands	2.2%	1.4%	2.0%	2.5%	2.9%	2.7%	3.0%	2.4%	1.7%				1.7%	0.9%	0.9%	2.0%	2.3%	3.0%	2.0%	1.4%	2.4%	4.7%	1.0%	1.4%	3.9%	5.7%	3.9%	2.2%	3.3%	1.7%	1.4%
New Zealand	3.5%	2.9%	3.0%	2.7%	3.1%	3.1%	3.4%	2.7%	3.0%								7.9%	1.9%	3.0%	4.4%	1.9%	2.6%	3.5%	3.3%	3.7%	4.0%	2.6%	2.4%	2.7%	2.9%	2.9%
Norway	1.5%	1.5%	2.1%	2.8%	3.2%	3.1%	3.2%	2.8%	1.7%					2.0%	3.0%	3.2%	1.8%	1.7%	2.2%	1.9%	3.1%	3.4%	3.3%	2.6%	3.7%	4.7%	4.4%	2.5%	3.8%	1.8%	1.5%
Portugal	2.4%	0.8%	1.2%	1.8%	2.6%	2.2%	2.7%	1.6%	1.0%								0.6%	2.2%	2.1%	0.5%	0.0%	4.3%	2.1%	2.9%	3.5%	4.8%	2.7%	2.6%	1.8%	0.9%	0.8%
Spain	2.8%	1.0%	2.4%	2.7%	2.9%	2.7%	2.7%	2.6%	1.9%							0.1%	3.2%	1.2%	1.3%	1.8%	0.9%	4.2%	-2.7%	2.2%	4.7%	7.9%	3.9%	2.8%	3.0%	2.6%	1.0%
Sweden	2.4%	2.5%	2.5%	2.5%	2.7%	2.5%	2.5%	2.4%	2.4%	0.6%	-0.3%	0.4%	0.7%	0.5%	0.6%	0.9%	1.5%	1.2%	2.4%	1.4%	1.1%	3.4%	3.5%	1.4%	2.8%	3.8%	2.4%	3.4%	2.1%	2.1%	2.5%
Switzerland	1.7%	1.9%	1.8%	1.6%	2.5%	2.3%	2.9%	1.5%	1.9%							1.5%	1.1%	3.0%	3.6%	2.8%	0.4%	5.0%	0.3%	2.6%	4.5%	4.7%	1.6%	1.2%	1.2%	1.9%	1.9%
UK	1.8%	1.9%	2.1%	2.2%	2.2%	2.0%	1.9%	2.2%	1.9%	1.5%	0.9%	2.5%	3.0%	1.5%	2.0%	1.8%	1.9%	2.4%	2.2%	1.0%	1.4%	0.7%	2.1%	1.6%	3.1%	3.4%	2.6%	2.6%	2.2%	1.8%	1.9%
US	2.3%	2.3%	2.5%	2.8%	3.2%	3.2%	3.5%	2.8%	2.2%	2.3%	3.7%	5.3%	6.1%	4.2%	4.2%	1.9%	6.6%	4.7%	4.3%	4.6%	2.3%	3.3%	0.9%	5.4%	4.3%	4.4%	3.3%	3.1%	3.4%	1.8%	2.3%

Source : Deutsche Bank, GFD

Figure 69: Developed market nominal and real GDP growth for different time horizons in USD

										Growth by Decade																			
	Last 5yrs	Last 10yrs	Last 25yrs	Last 50yrs	Last 100yrs	since 1900	1900-1970	since 1971	since 1999	1800-1809	1810-1819	1820-1829	1830-1839	1840-1849	1850-1859	1860-1869	1870-1879	1880-1889	1890-1899	1900-1909	1910-1919	1920-1929	1930-1939	1940-1949	1950-1959	1960-1969	1970-1979	1980-1989	1990-1999	2000-2009	2010-2019
Nominal GDP																														
Australia	1.2%	2.1%	5.4%	7.4%				7.4%	6.5%																8.0%	13.7%	8.1%	3.2%	10.5%	2.1%
Austria	2.1%	0.8%	3.1%	7.3%		5.1%	3.7%	7.2%	3.3%									0.9%	2.2%	11.6%				13.5%	8.7%	19.3%	6.8%	3.4%	7.2%	0.8%
Belgium	1.7%	0.7%	3.1%	6.5%		5.5%	4.9%	6.4%	3.3%					-0.1%	4.6%	5.9%	-0.5%	1.0%	1.2%	1.8%			15.6%	4.6%	8.1%	17.5%	4.1%	3.4%	7.4%	0.7%
Canada	1.1%	1.9%	4.7%	6.4%	6.3%	6.6%	6.9%	6.3%	5.3%									4.2%	2.2%	8.3%	7.9%	4.7%	-1.8%	11.9%	10.0%	7.1%	12.0%	8.7%	2.0%	7.8%	1.9%
Denmark	1.5%	0.5%	3.1%	6.8%	6.0%	6.0%	5.5%	6.7%	3.0%			-0.3%	4.7%	3.4%	5.0%	4.9%	-0.2%	1.6%	3.2%	4.2%	8.6%	3.8%	0.1%	5.7%	7.1%	9.1%	17.8%	6.0%	3.5%	7.0%	0.5%
France	0.9%	-0.2%	2.6%	6.3%		5.2%	4.5%	6.2%	2.7%			2.8%	1.1%	1.1%	2.6%	5.5%	-2.8%	1.8%	1.8%	2.1%			-1.4%	7.9%	8.0%	8.7%	17.7%	5.7%	2.4%	7.0%	-0.2%
Germany	1.8%	1.0%	2.2%	6.3%	7.0%	5.3%	4.7%	6.1%	2.5%							5.6%	1.7%	3.1%	3.4%	3.5%	-8.8%	16.2%	8.4%	-6.7%	11.0%	11.3%	17.4%	5.0%	3.2%	5.4%	1.0%
Greece	-0.6%	-4.7%	3.0%	6.5%	5.7%	6.6%	7.0%	6.1%	2.4%					-0.2%	7.7%	3.4%	2.0%	4.5%	2.1%	2.4%	20.8%	-7.2%	-0.8%	16.9%	6.9%	10.6%	18.5%	3.8%	5.2%	11.3%	-4.7%
Hong Kong	4.8%	5.6%	4.1%	10.3%				10.1%	3.8%																10.4%	23.6%	11.6%	9.2%	2.6%	5.6%
Ireland	11.1%	5.1%	8.1%	9.9%	6.3%	5.8%	3.1%	9.9%	7.2%								-1.3%	0.2%	1.4%	-0.6%	7.1%	5.4%	-1.3%	-2.0%	5.2%	7.3%	17.1%	8.8%	9.0%	10.1%	5.1%
Italy	0.3%	-1.2%	2.7%	6.6%	6.0%	5.8%	5.5%	6.1%	2.2%								-1.2%	2.4%	0.4%	4.3%	4.8%	3.3%	1.2%	4.1%	9.9%	8.7%	16.5%	9.5%	2.3%	6.7%	-1.2%
Japan	4.6%	0.1%	0.1%	6.9%	6.6%	7.2%	7.5%	6.7%	0.6%										4.3%	5.0%	15.2%	0.4%	-0.9%	1.9%	15.1%	17.1%	17.7%	11.7%	5.7%	0.3%	0.1%
Netherlands	2.3%	0.2%	3.7%	7.3%	6.4%	6.4%	6.0%	7.1%	3.7%		0.5%	0.8%	2.4%	-0.9%	2.1%	5.0%	-0.8%	1.8%	1.2%	3.0%	10.6%	2.4%	0.6%	5.4%	8.0%	11.0%	20.6%	4.3%	4.8%	7.8%	0.2%
New Zealand	2.2%	4.2%	5.3%	7.5%	6.3%	6.2%	5.4%	7.3%	6.5%							15.6%	4.4%	0.8%	1.7%	5.8%	5.8%	3.4%	5.1%	3.6%	8.3%	5.2%	13.0%	8.5%	2.9%	9.1%	4.2%
Norway	-0.7%	-0.4%	4.6%	7.7%	6.0%	6.3%	5.4%	7.6%	4.7%					1.7%	5.5%	5.3%	0.2%	1.5%	3.4%	2.1%	13.5%	-0.7%	2.0%	3.0%	8.9%	8.4%	18.7%	7.1%	3.9%	10.3%	-0.4%
Portugal	2.6%	-0.5%	3.9%	7.0%	3.4%	2.8%	0.0%	6.9%	3.1%									3.2%	-1.7%	4.0%	-4.1%	-18.5%	-0.8%	7.2%	5.6%	8.5%	9.7%	10.9%	7.9%	7.6%	-0.5%
Spain	2.3%	-0.9%	4.1%	7.9%	5.8%	5.9%	4.7%	7.6%	3.8%							1.3%	2.1%	-0.2%	-0.8%	4.3%	8.1%	-0.2%	-1.2%	3.4%	5.7%	12.1%	20.2%	7.9%	3.5%	9.8%	-0.9%
Sweden	0.9%	1.4%	3.3%	5.9%	5.6%	5.8%	5.8%	5.8%	3.4%			0.4%	2.5%	0.8%	4.2%	3.9%	1.4%	1.2%	4.3%	2.9%	10.8%	0.6%	2.4%	5.9%	8.9%	9.1%	14.1%	7.0%	1.8%	5.8%	1.4%
Switzerland	2.0%	2.4%	3.5%	7.6%	6.6%	6.3%	5.5%	7.5%	4.1%							4.0%	0.5%	0.9%	4.1%	3.6%	6.1%	4.6%	0.4%	7.9%	6.2%	9.1%	18.1%	8.0%	2.4%	7.6%	2.4%
UK	0.3%	1.6%	3.4%	6.6%	5.0%	4.9%	3.8%	6.5%	2.8%	3.2%	0.3%	0.9%	3.0%	-0.1%	3.0%	5.4%	-0.2%	2.1%	2.6%	1.2%	7.5%	0.6%	0.2%	4.0%	7.1%	5.6%	15.1%	7.4%	5.5%	4.0%	1.6%
US	4.0%	4.0%	4.4%	6.3%	5.7%	6.1%	6.0%	6.3%	4.1%	1.8%	4.2%	1.8%	7.9%	1.3%	6.1%	6.4%	1.7%	3.9%	3.4%	6.7%	9.7%	2.2%	-1.1%	11.2%	6.9%	7.0%	10.1%	7.8%	5.6%	4.0%	4.0%
Real GDP																														
Australia	-0.6%	0.1%	2.7%	2.3%				2.2%	3.6%				6.6%	10.3%	12.6%											3.2%	0.2%	1.6%	6.4%	0.1%
Austria	0.3%	-0.9%	1.6%	4.3%	-4.4%	-5.9%	-12.3%	4.2%	1.5%									1.7%	2.3%	9.9%	-30.9%	-42.3%	4.0%	-24.6%	10.7%	3.2%	13.2%	2.3%	1.9%	5.3%	-0.9%
Belgium	0.1%	-0.9%	1.9%	3.1%	1.2%	0.4%	-1.3%	3.1%	1.6%						2.9%	4.5%	0.0%	2.4%	1.8%	2.0%	-8.4%	-7.1%	2.4%	-5.0%	2.0%	4.9%	9.6%	-0.5%	2.3%	5.4%	-0.9%
Canada	1.2%	1.0%	3.1%	2.6%	3.4%	3.5%	4.2%	2.5%	3.5%									3.6%	3.2%	5.8%	2.0%	5.2%	-0.5%	5.9%	7.0%	3.9%	3.2%	3.0%	0.3%	5.4%	1.0%
Denmark	0.9%	-0.7%	1.3%	2.0%	2.4%	2.1%	2.2%	2.0%	1.3%				3.7%	3.5%	2.2%	3.7%	0.3%	2.1%	3.2%	3.4%	-1.5%	7.3%	-0.8%	-1.1%	3.7%	4.6%	5.5%	-0.7%	1.5%	4.6%	-0.7%
France	0.0%	-1.1%	1.3%	2.3%	-1.2%	-1.7%	-4.2%	2.2%	1.3%				1.5%	2.0%	1.7%	3.5%	-2.1%	2.0%	2.5%	1.0%	-8.9%	-1.6%	-6.5%	-18.5%	1.5%	4.4%	7.9%	-1.1%	0.8%	5.1%	-1.1%
Germany	0.1%	-0.5%	0.9%	3.7%	-20.7%	-19.2%	-32.0%	3.6%	1.1%							4.5%	0.1%	2.5%	3.4%	2.7%	-23.9%	-91.5%	8.8%	-23.0%	8.8%	6.1%	11.3%	3.0%	0.8%	4.4%	-0.5%
Greece	-0.6%	-4.4%	-0.1%	-2.9%	-27.6%	-23.3%	-34.7%	-3.1%	0.0%					-0.6%	4.2%	3.9%	0.0%	4.2%	0.5%	2.4%	1.8%	-18.1%	-2.3%	-94.6%	0.2%	6.8%	3.5%	-12.9%	-5.5%	6.1%	-4.4%
Hong Kong	1.9%	2.8%	3.1%	5.5%				5.4%	3.4%																	7.8%	11.7%	2.5%	6.4%	4.2%	2.8%
Ireland	8.2%	3.5%	5.8%	3.9%				4.0%	4.9%														-1.3%	-2.2%	1.4%	2.9%	3.4%	-0.3%	5.9%	7.3%	3.5%
Italy	-0.6%	-2.2%	0.4%	-0.1%	-2.1%	-2.2%	-3.6%	-0.2%	0.2%								-1.5%	2.6%	0.8%	3.4%	-8.9%	-0.1%	1.1%	-28.8%	6.4%	6.3%	1.5%	-1.7%	-2.2%	4.1%	-2.2%
Japan	2.3%	-0.7%	0.4%	5.2%	-0.6%	0.0%	-3.3%	5.1%	0.9%									1.3%	-1.7%	1.5%	4.6%	1.7%	-2.6%	-38.5%	8.8%	10.7%	9.6%	10.9%	5.1%	1.5%	-0.7%
Netherlands	0.7%	-1.0%	1.5%	3.7%	3.2%	2.9%	2.4%	3.6%	1.5%				1.6%	0.9%	1.3%	3.7%	0.2%	3.1%	2.0%	1.4%	1.7%	5.5%	3.8%	-5.5%	3.9%	6.1%	10.8%	2.1%	1.9%	5.3%	-1.0%
New Zealand	0.5%	2.2%	3.2%	1.7%	2.0%	2.0%	2.2%	1.6%	4.2%								5.8%	1.9%	3.1%	4.4%	-0.7%	5.3%	3.6%	-2.4%	3.6%	1.7%	1.3%	-2.6%	1.4%	6.4%	2.2%
Norway	-1.7%	-2.7%	1.0%	2.4%	2.6%	2.3%	2.3%	2.4%	1.0%					2.5%	3.5%	4.9%	-0.1%	1.6%	2.3%	1.9%	0.2%	6.4%	1.6%	-2.3%	3.8%	4.7%	8.3%	-0.5%	1.8%	5.3%	-2.7%
Portugal	0.9%	-1.7%	0.7%	-1.9%	-1.4%	-1.8%	-1.6%	-2.1%	0.8%								-1.2%	2.2%	-1.5%	3.0%	-10.3%	-14.1%	-0.2%	2.5%	3.5%	4.9%	-2.9%	-8.1%	-1.1%	4.6%	-1.7%
Spain	1.3%	-1.4%	1.9%	1.1%	-0.5%	0.1%	-0.6%	1.0%	1.7%							1.6%	0.8%	0.8%	-0.6%	3.8%	1.5%	0.5%	-5.5%	-6.7%	-4.1%	6.3%	4.5%	-2.3%	-1.1%	6.3%	-1.4%
Sweden	-1.3%	-0.2%	1.6%	1.3%	2.0%	1.7%	2.1%	1.2%	1.7%			0.7%	0.7%	0.2%	1.1%	2.4%	-0.4%	1.2%	2.5%	1.3%	-1.2%	5.9%	2.2%	-0.7%	2.8%	3.8%	4.6%	-0.7%	-1.1%	3.9%	-0.2%
Switzerland	2.3%	2.6%	3.1%	4.6%	4.3%	3.8%	3.2%	4.6%	3.6%							3.3%	-0.8%	3.0%	3.6%	2.9%	-0.4%	5.9%	1.7%	3.0%	4.4%	4.6%	12.2%	1.6%	0.8%	6.4%	2.6%
UK	-1.4%	-0.1%	1.4%	1.0%	1.1%	0.9%	0.9%	1.0%	0.8%	1.5%	1.1%	3.3%	2.9%	1.4%	2.1%	3.7%	0.0%	2.4%	2.3%	0.9%	-1.2%	3.4%	0.0%	-1.9%	3.1%	1.8%	1.8%	-0.6%	2.3%	1.8%	-0.1%
US	2.3%	2.3%	2.5%	2.8%	3.2%	3.2%	3.5%	2.8%	2.2%	2.3%	3.7%	5.3%	6.1%	4.2%	4.2%	1.9%	6.6%	4.7%	4.3%	4.6%	2.3%	3.3%	0.9%	5.4%	4.3%	4.4%	3.3%	3.1%	3.4%	1.8%	2.3%

Source : Deutsche Bank, GFD

Figure 70: Emerging market nominal and real GDP growth for different time horizons

										Growth by Decade																		
	Last 5yrs	Last 10yrs	Last 25yrs	Last 50yrs	Last 100yrs	since 1900	1900-1970	since 1971	since 1999	1800-1809	1810-1819	1820-1829	1830-1839	1840-1849	1850-1859	1860-1869	1870-1879	1880-1889	1890-1899	1900-1909	1910-1919	1920-1929	1930-1939	1940-1949	1950-1959	1960-1969	1970-1979	1980-1989	1990-1999	2000-2009	2010-2019
Nominal GDP																														
China	9.0%	11.0%	12.8%	13.3%				13.2%	12.4%																3.1%	7.6%	15.1%	18.6%	14.4%	11.0%
India	10.3%	12.9%	12.7%	13.2%	9.2%	8.4%	5.2%	13.3%	12.5%									1.7%	1.1%	3.6%	6.2%	0.5%	-2.8%	13.0%	5.1%	11.4%	11.0%	15.6%	14.6%	12.1%	12.9%
Korea	5.3%	5.2%	7.0%	14.6%	23.1%			14.3%	6.6%													0.0%				25.7%	31.1%	17.3%	13.2%	7.7%	5.2%
Malaysia	6.1%	7.3%	8.2%	10.3%				10.4%	7.9%																4.7%	7.3%	15.3%	8.2%	12.3%	8.6%	7.3%
Mexico	5.7%	6.4%	10.7%	24.0%	16.4%	19.7%	16.7%	24.3%	7.7%											8.4%	75.6%	-0.1%	4.8%	16.0%	15.2%	10.9%	22.7%	68.3%	23.9%	8.0%	6.4%
Philippines	8.1%	8.8%	9.7%	13.5%				13.3%	9.2%																7.1%	10.4%	20.1%	16.6%	12.6%	9.6%	8.8%
Russia	6.9%	10.2%	23.2%	29.6%		30.8%	31.4%	30.0%	19.1%										5.1%	3.7%			28.7%	8.5%	6.2%	6.8%	5.3%	2.7%	148.5%	23.2%	10.2%
South Africa	5.9%	7.2%	9.6%	12.8%	9.7%			12.9%	9.4%													1.7%	4.1%	9.6%	8.1%	9.8%	15.8%	17.6%	12.4%	11.5%	7.2%
Taiwan	3.0%	3.9%	4.2%	9.5%	23.4%			9.4%	3.4%												10.9%	3.1%	5.7%	211.5%	33.4%	14.4%	19.8%	12.7%	9.3%	2.8%	3.9%
Thailand	5.0%	5.7%	6.3%	10.2%				10.2%	6.3%																8.0%	10.4%	15.8%	12.6%	10.1%	7.3%	5.7%
Real GDP																														
China	6.7%	7.7%	9.0%	10.2%				10.0%	8.9%																2.2%	7.3%	9.7%	16.3%	10.3%	7.7%
India	6.9%	7.2%	6.8%	5.6%	3.7%	3.3%	1.7%	5.6%	7.0%										0.6%	1.9%	0.3%	0.2%	0.8%	0.5%	3.9%	4.0%	2.8%	5.9%	5.3%	6.8%	7.2%
Korea	4.7%	4.2%	4.7%	7.0%	4.5%			6.9%	4.7%													1.3%	3.8%	-2.9%	4.6%	4.0%	10.4%	8.7%	7.0%	4.7%	4.2%
Malaysia	4.9%	5.4%	6.2%	6.8%	5.1%			6.9%	6.5%													6.1%	1.7%	0.8%	2.1%	6.8%	7.9%	5.7%	7.2%	7.8%	5.4%
Mexico	1.1%	2.2%	2.4%	2.9%	3.2%	3.0%	3.1%	2.8%	2.1%											3.2%	0.7%	0.9%	1.9%	1.8%	6.3%	7.1%	4.7%	1.8%	3.9%	2.0%	2.2%
Philippines	6.6%	6.3%	5.0%	4.2%	3.9%			4.2%	5.3%												6.6%	3.6%	3.0%	-0.1%	6.5%	4.7%	5.8%	1.9%	2.6%	4.4%	6.3%
Russia	0.5%	1.7%	4.1%	2.1%				2.0%	3.6%														6.1%	0.8%	5.2%	5.0%	3.1%	1.8%	-1.5%	5.4%	1.7%
South Africa	0.7%	1.6%	2.5%	2.4%	3.2%			2.3%	2.6%													1.3%	4.5%	4.4%	4.7%	5.3%	3.3%	2.0%	1.6%	3.5%	1.6%
Taiwan	2.5%	3.5%	4.1%	6.3%	5.6%			6.2%	3.8%												2.2%	4.5%	2.5%	-0.8%	9.4%	9.5%	10.2%	6.8%	7.4%	3.8%	3.5%
Thailand	3.4%	3.6%	3.4%	6.7%				6.6%	4.0%																3.9%	8.3%	7.3%	7.2%	11.1%	4.3%	3.6%

Source : Deutsche Bank, GFD

Figure 71: Emerging market nominal and real GDP growth for different time horizons in USD

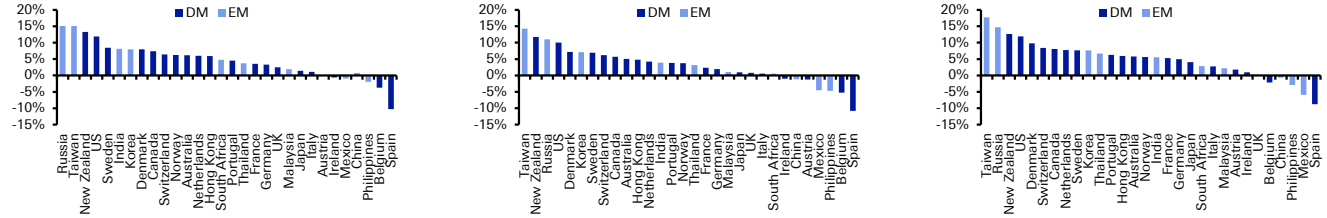
										Returns by Decade																		
	Last 5yrs	Last 10yrs	Last 25yrs	Last 50yrs	Last 100yrs	since 1900	1900-1970	since 1971	since 1999	1800-1809	1810-1819	1820-1829	1830-1839	1840-1849	1850-1859	1860-1869	1870-1879	1880-1889	1890-1899	1900-1909	1910-1919	1920-1929	1930-1939	1940-1949	1950-1959	1960-1969	1970-1979	1980-1989	1990-1999	2000-2009	2010-2019
Nominal GDP																														
China	6.5%	10.8%	13.7%	10.9%				10.8%	13.3%																3.1%	13.1%	2.6%	12.1%	16.6%	10.8%
India	7.6%	8.2%	9.0%	8.2%	5.5%	5.6%	3.9%	8.3%	9.7%									0.3%	0.6%	3.7%	9.6%	-1.5%	-4.6%	9.0%	5.0%	6.4%	10.3%	7.2%	4.3%	11.3%	8.2%
Korea	4.1%	5.3%	5.4%	11.6%	7.8%			11.3%	6.8%													-0.3%				4.9%	25.2%	13.4%	7.6%	7.4%	5.3%
Malaysia	2.9%	5.4%	6.1%	9.7%				9.8%	7.5%																4.6%	7.2%	19.3%	6.0%	8.5%	9.7%	5.4%
Mexico	0.6%	2.5%	5.0%	7.1%	6.2%	6.4%	6.0%	7.1%	4.5%											8.7%	6.6%	-0.6%	-4.9%	10.9%	11.0%	10.9%	15.5%	4.4%	9.3%	4.6%	2.5%
Philippines	5.5%	7.9%	6.5%	7.8%				8.6%	7.8%																7.1%	3.3%	13.2%	4.6%	5.5%	8.0%	7.9%
Russia	5.5%	2.6%	9.9%	3.7%		4.9%	5.9%	3.5%	13.1%										5.7%	3.9%			28.4%	8.5%	-0.3%	7.9%	7.3%	2.7%	-13.1%	22.0%	2.6%
South Africa	1.9%	0.5%	3.8%	6.3%	6.1%			6.2%	5.0%													4.4%	1.9%	5.9%	8.0%	9.8%	14.1%	5.2%	2.9%	9.5%	0.5%
Taiwan	4.2%	4.6%	3.6%	10.2%	8.0%			10.1%	3.8%												11.1%	2.8%	-1.8%	6.3%	7.2%	15.6%	21.1%	16.4%	7.3%	2.6%	4.6%
Thailand	7.1%	6.9%	5.6%	9.5%				9.4%	7.3%																8.9%	10.5%	16.3%	9.9%	6.0%	8.5%	6.9%
Real GDP																														
China	4.3%	7.5%	9.9%	8.0%				7.7%	9.8%																2.2%	12.8%	-2.2%	9.9%	12.5%	7.5%
India	4.3%	2.7%	3.3%	1.0%	0.2%	0.6%	0.4%	0.9%	4.4%										0.1%	2.0%	3.5%	-1.8%	-1.1%	-3.0%	3.9%	-0.6%	2.3%	-1.8%	-4.2%	6.1%	2.7%
Korea	3.5%	4.3%	3.1%	4.2%	-8.5%			4.1%	4.9%													1.0%	-3.6%	-43.2%	-30.0%	-13.2%	5.4%	5.1%	1.7%	4.4%	4.3%
Malaysia	1.7%	3.5%	4.3%	6.2%	4.5%			6.2%	6.2%													8.8%	-0.3%	-2.6%	2.1%	6.7%	11.6%	3.5%	3.6%	8.9%	3.5%
Mexico	-3.8%	-1.5%	-2.9%	-11.1%	-5.8%	-8.4%	-6.3%	-11.4%	-1.0%											3.5%	-38.9%	0.4%	-7.5%	-2.7%	2.4%	7.1%	-1.4%	-36.8%	-8.3%	-1.3%	-1.5%
Philippines	4.0%	5.4%	2.0%	-1.0%	0.6%			-0.1%	3.9%												6.1%	4.1%	3.1%	-0.1%	6.5%	-2.1%	-0.3%	-8.6%	-3.9%	2.9%	5.4%
Russia	-0.8%	-5.3%	-7.2%	-18.3%				-18.8%	-1.6%														5.8%	0.8%	-1.3%	6.1%	5.1%	1.8%	-65.6%	4.3%	-5.3%
South Africa	-3.1%	-4.7%	-3.0%	-3.5%	-0.1%			-3.7%	-1.5%													4.0%	2.4%	0.8%	4.7%	5.4%	1.9%	-8.8%	-7.0%	1.6%	-4.7%
Taiwan	3.6%	4.2%	3.6%	6.9%	-7.5%			6.9%	4.2%												2.4%	4.1%	-4.8%	-66.2%	-12.1%	10.6%	11.3%	10.3%	5.5%	3.6%	4.2%
Thailand	5.5%	4.8%	2.7%	5.9%				5.9%	5.0%																4.8%	8.3%	7.7%	4.7%	7.0%	5.5%	4.8%

Source : Deutsche Bank, GFD

LT Asset Returns in Charts

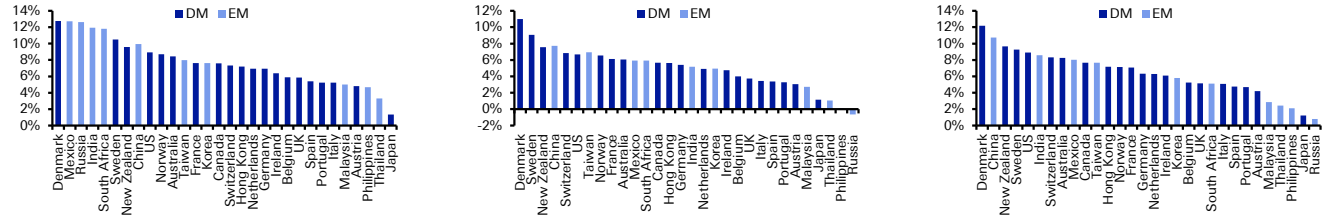
International equity return charts

Figure 72: Last 5 years annualised equity returns - nominal (left), real (middle), USD (right)



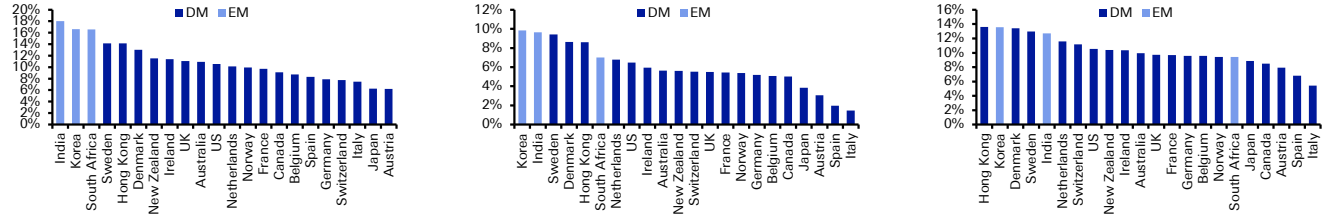
Source : Deutsche Bank, GFD

Figure 73: Last 25 years annualised equity returns - nominal (left), real (middle), USD (right)



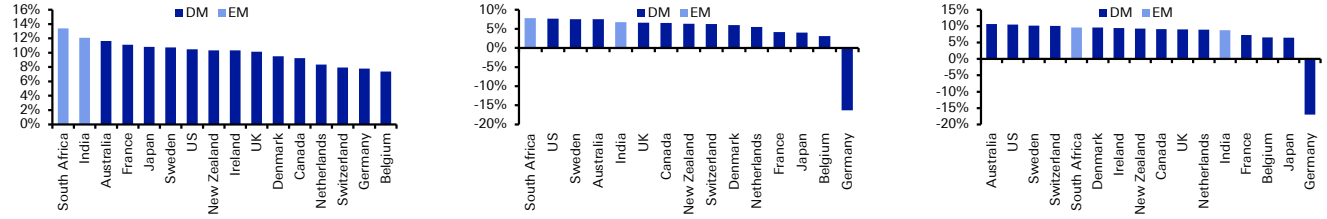
Source : Deutsche Bank, GFD

Figure 74: Last 50 years annualised equity returns - nominal (left), real (middle), USD (right)



Source : Deutsche Bank, GFD

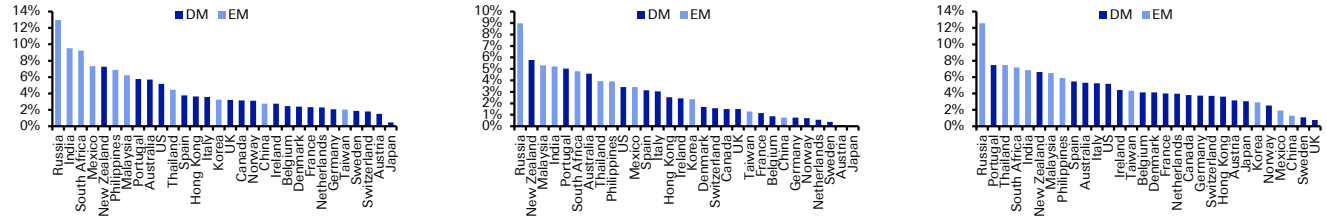
Figure 75: Last 100 years annualised equity returns - nominal (left), real (middle), USD (right)



Source : Deutsche Bank, GFD

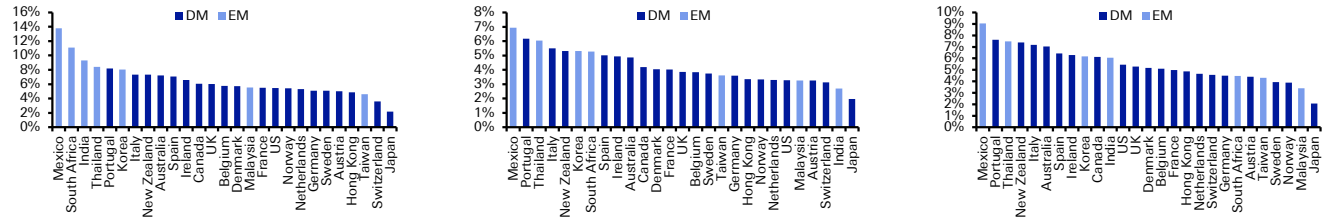
International 10 year government return charts

Figure 76: Last 5 years annualised bond returns - nominal (left), real (middle), USD (right)



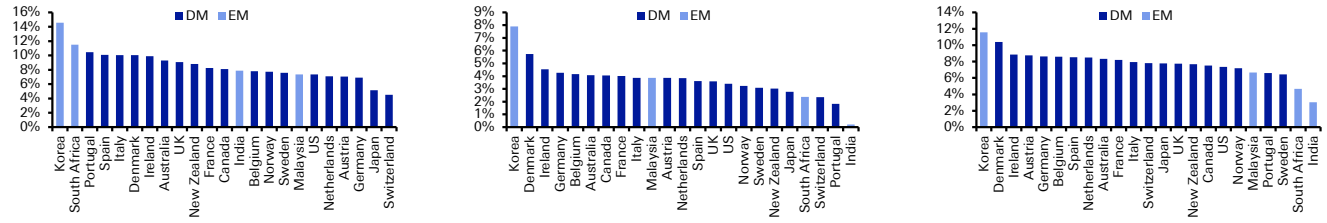
Source : Deutsche Bank, GFD

Figure 77: Last 25 years annualised bond returns - nominal (left), real (middle), USD (right)



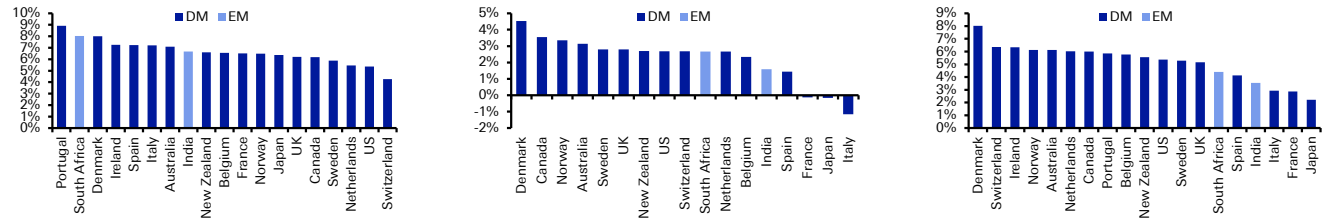
Source : Deutsche Bank, GFD

Figure 78: Last 50 years annualised bond returns - nominal (left), real (middle), USD (right)



Source : Deutsche Bank, GFD

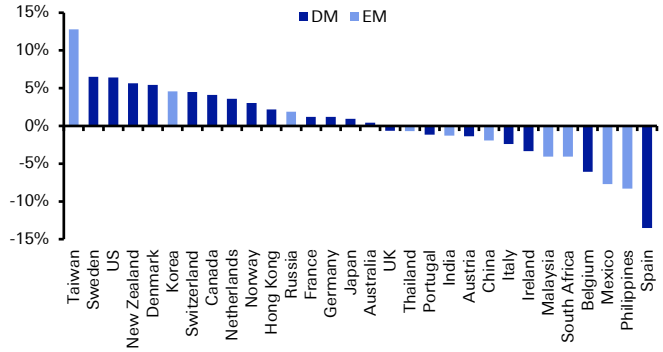
Figure 79: Last 100 years annualised bond returns - nominal (left), real (middle), USD (right)



Source : Deutsche Bank, GFD

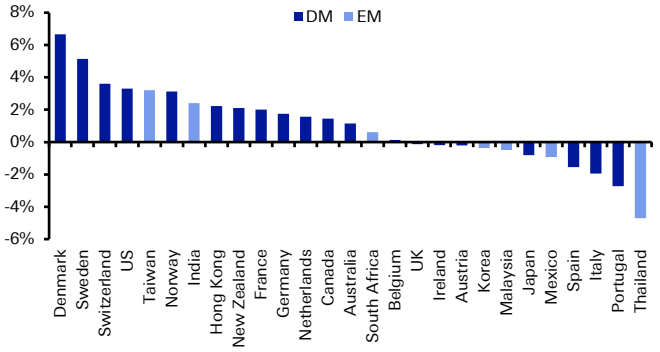
International equity minus bond returns

Figure 80: Last 5 years annualised equity-bond return



Source : Deutsche Bank, GFD

Figure 81: Last 25 years annualised equity-bond return



Source : Deutsche Bank, GFD

Figure 82: Last 50 years annualised equity-bond return

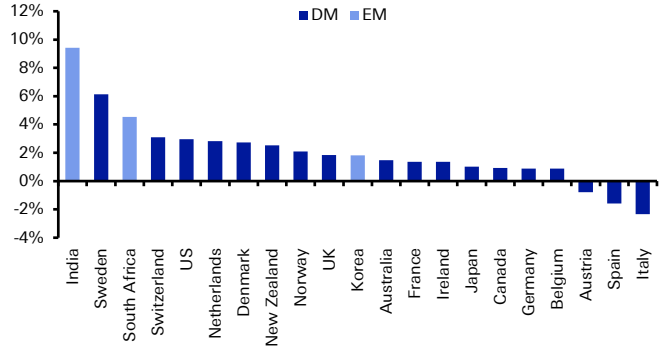


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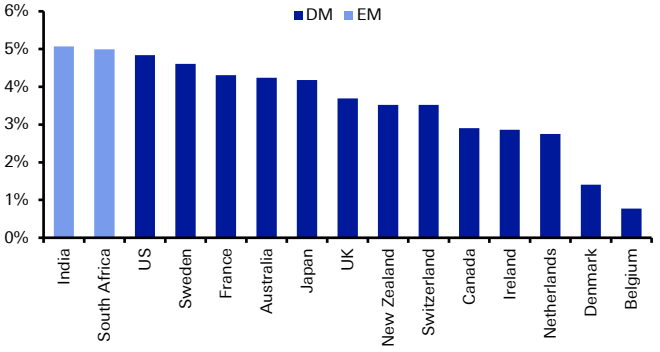
Figure 83: Last 100 years annualised equity-bond return



Source : Deutsche Bank, GFD

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