



Uncommon truths

Does it matter who wins the US election?

I have long expected Joe Biden to be elected as the next president of the US. I believe the stock market implications are less than many fear but not all sectors will be impacted in the same way. I think gold could suffer if there is a change of president, though a contested result may give it a reprieve.

I can't claim to have foreseen Covid-19 but in January I did predict that Joe Biden would be the next US president (see [The Aristotle List: 10 improbable but possible events for 2020](#)). At the time, that idea was met with a mixture of scepticism and fear. The scepticism was because it was felt Biden wouldn't even win the Democratic primary race, especially after Iowa and New Hampshire. The fear was due to the possible implications for US stocks (though the audience at my recent webinar on the topic were evenly split on this).

Nothing I have seen in the meantime makes me feel any differently about the outcome. Respected analyst groups, such as Nate Silver's FiveThirtyEight and 270toWin, have Biden winning by a comfortable margin. This is backed up by my own opinion poll tracker, which shows Biden with a comfortable and durable lead (see **Figure 1**).

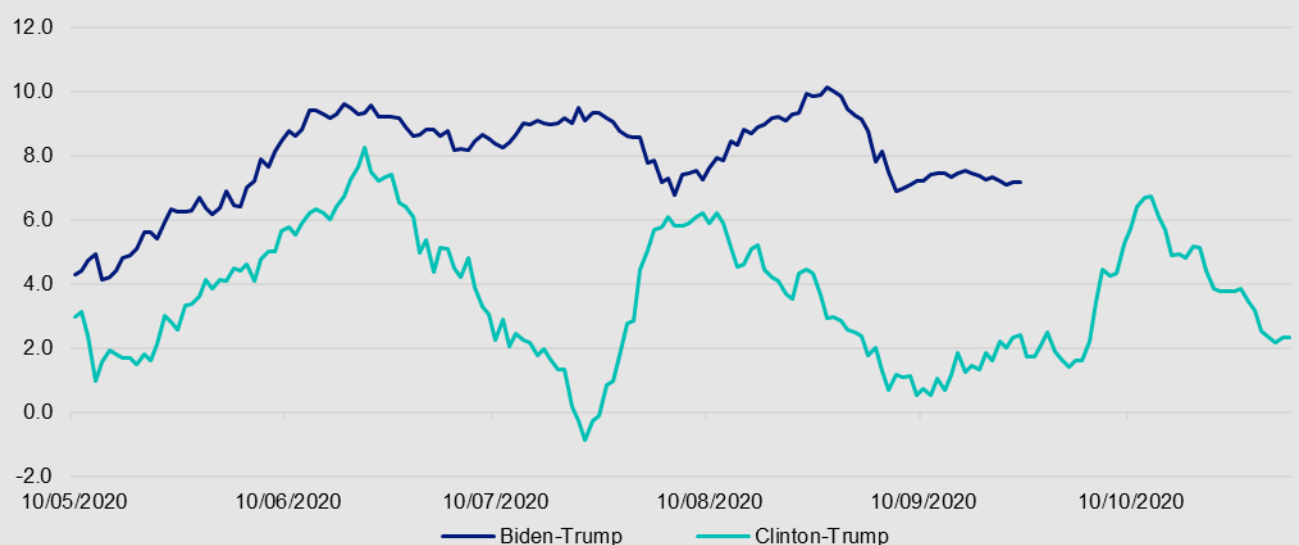
I know you are thinking that opinion polls got it wrong last time but I would challenge that notion in two ways: first, as seen in **Figure 1**, Hillary Clinton's advantage was around two percentage points going into the 2016 election and that was the margin by which she won the popular vote (48.2% to 46.1%) and, second, Biden's lead is consistently stronger than was Clinton's.

As Hillary Clinton found to her cost, winning the popular vote is not enough to gain access to the White House. That the presidential college voting system favours Republicans can be gauged from the fact that only four presidents have been elected while losing the popular vote (since it became effectively a two-party system) and they were all Republicans (Rutherford Hayes 1876, Benjamin Harrison 1888, George W. Bush 2000 and Donald Trump 2016).

It is therefore important for a Democrat hopeful to have a big lead in opinion polls going into the election. So far, during the summer and post-convention period, Joe Biden's lead has remained well above that enjoyed by Hillary Clinton and, I think, if it holds at these levels should be enough to afford a comfortable victory. My confidence is boosted by the fact that many pollsters have tried to reduce the bias in their samples toward college graduates who lean toward the Democratic party (see [this](#) from Pew Research, for example). In the above-mentioned webinar, a slim majority of participants told me they expect a Biden victory (there were more than 100 responses to most questions).

What about Congress? From what I am seeing from those who know better, the House of Representatives (where all seats are up for grabs) is likely to remain with the Democrats. The Senate race looks more interesting (35 of 100 seats are being contested). It appears so close that the new Vice President may be called upon to use their casting vote to decide whether the Senate has Democrat or Republican leadership.

Figure 1 – US presidential election opinion polls (10-day moving averages) *



*The chart compares opinion polls in 2020 (Biden-Trump) with those of 2016 (Clinton-Trump), using 10-day moving averages of published polls (if more than one poll was taken on a given day, an average was taken across those polls). The dates shown on the axis are for 2020, with 2016 data arranged so that the 2016 election date (November 8) coincides with the 2020 election date (November 3). 2016 data is from 6 May to 7 November. 2020 data is from 1 May to 24 September. Source: 270twin, Wikipedia and Invesco.



A quick look at Joe Biden's policy platform raises understandable concerns for investors. First, the plan to raise the corporate tax rate to 28% (from the current 21%), would take it half-way back to the 2016 level of 35%, thus reducing post-tax profits. However, we estimate the reduction from 35% to 21% boosted S&P 500 EPS by only 5%-10% (effective tax rates were much lower than 35%) and we suspect the future hit to S&P 500 EPS would be even smaller than that.

Further, there seems little historical relationship between the US corporate tax rate and future equity returns (see **Figure 2**). Indeed, there have been instances when rising tax rates have been associated with improving stock market returns (1930-50, for example). Overall, it looks as though there are bigger influences on the stock market than the rate of corporation tax. This is not surprising given the broader implications of tax changes, including the effect on government financing requirements.

The second potential threat is the doubling of the minimum wage to \$15, which could increase labour costs and reduce operating margins for businesses employing a lot of low-paid workers. The current federal rate is \$7.25 but individual states can impose higher rates (California, Massachusetts and New York are among states that already have a \$15 minimum wage). Hence, the national effect will be less dramatic than suggested by the doubling of the federal minimum.

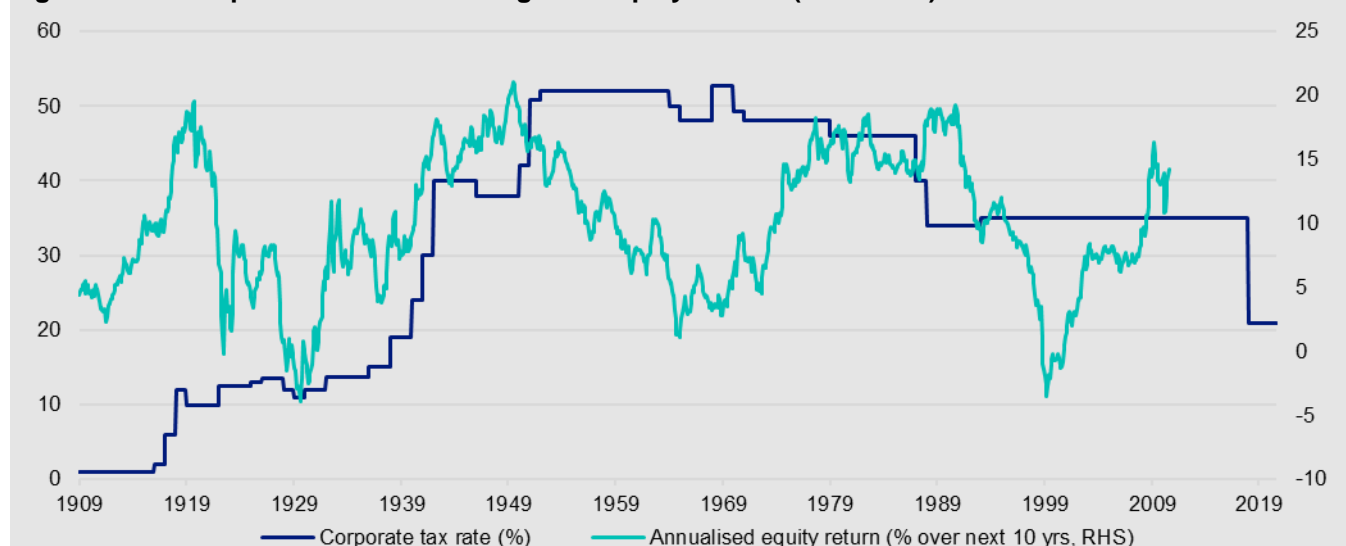
If the minimum wage were increased rapidly to \$15 (I suspect it would be done in stages), it would push the US to the top of the developed world league table,

broadly in line with countries such as Australia, Luxembourg and New Zealand. It would presumably have most impact on sectors that employ a lot of workers on low wages. The Brookings Institute calculates that in 2018, sectors with the highest proportion of workers below the median wage were: hospitality (93.5%), retail (77.4%), arts & entertainment (74.3%), agriculture (72.9%) and logistics (69%) (see [this](#) and [this](#)).

The third potential threat could come from the desire to equalise tax rates on capital gains and income (for those with incomes above \$1million). Since the tax wedge between equity returns received as dividends and capital gains has been one of the driving forces behind share buybacks, it is only reasonable to assume such an equalisation could reduce buybacks. If you believe that such programmes boost the stock market (I do not), then you may be worried by such a policy. On the other hand, if you believe that such financial engineering has distracted businesses from real engineering (I do), you may believe that reducing share buybacks could be a means of boosting productivity (and thereby long-term stock returns).

Though the proof of the pudding will be in the eating, history offers some comfort. Far from being a threat to the stock market, Democrat presidents have on average presided over better equity returns than Republican counterparts. The annualised stock market gain since 1853 has been 5.2% under Democrat presidents and 3.5% under Republicans, as of 31 August 2020 (for more detail see **Figure 33** in [The Big Picture](#), which is an updated version of a chart that I regularly use).

Figure 2 – US corporate tax rate and long-term equity returns (1909-2020)



Note: Monthly data from January 1909 to August 2020. Corporate tax rate is the maximum tax rate, as provided by the Tax Policy Center. Equity returns are total returns over the following 10 years (including dividends) on a broad US equity index (see appendix for details). Past performance is no guarantee of future results. Source: Robert Shiller, Tax Policy Center, Refinitiv Datastream and Invesco



Even if the macro effect on equity returns of increasing the corporate tax rate is debatable, there are likely to be micro effects at the company and sector level. It is my guess that low margin businesses and sectors will suffer the greatest proportionate effect on post-tax profits.

According to data from the [NYU Stern School of Business](#) (as of January 2020), among US sectors with the lowest pre-tax unadjusted operating margins were: grocery & food retail (2.3%), food wholesalers (2.7%), autos (3.4%), engineering & construction (3.9%), farming & agriculture (4.0%), general retail (4.2%) and healthcare support services (4.4%). By comparison, the full market average across 5878 companies (without financials) was 11.2% with notable high margin sectors being: tobacco (39.3%), railroads (38.7%), water utilities (30.3%), real estate (29.9%), information services (28.3%), REITS (27.2%) and pharmaceuticals (24.9%).

There are, of course, some elements of Biden's platform that could impact specific sectors. Notable on the negative side are the desire for pharmaceutical companies to charge the same prices in the US as overseas; proposed restrictions on oil & gas drilling activity and measures to tackle carbon emissions (potentially negative for coal producers, oil & gas companies, utilities and energy intensive industries such as iron & steel and chemicals, for example).

More positively, increasing the minimum wage is, in theory, a way of distributing from the owners of capital to those at the lower end of the income scale. To the extent that low incomes are boosted (rather than jobs lost), it could increase consumer spending because

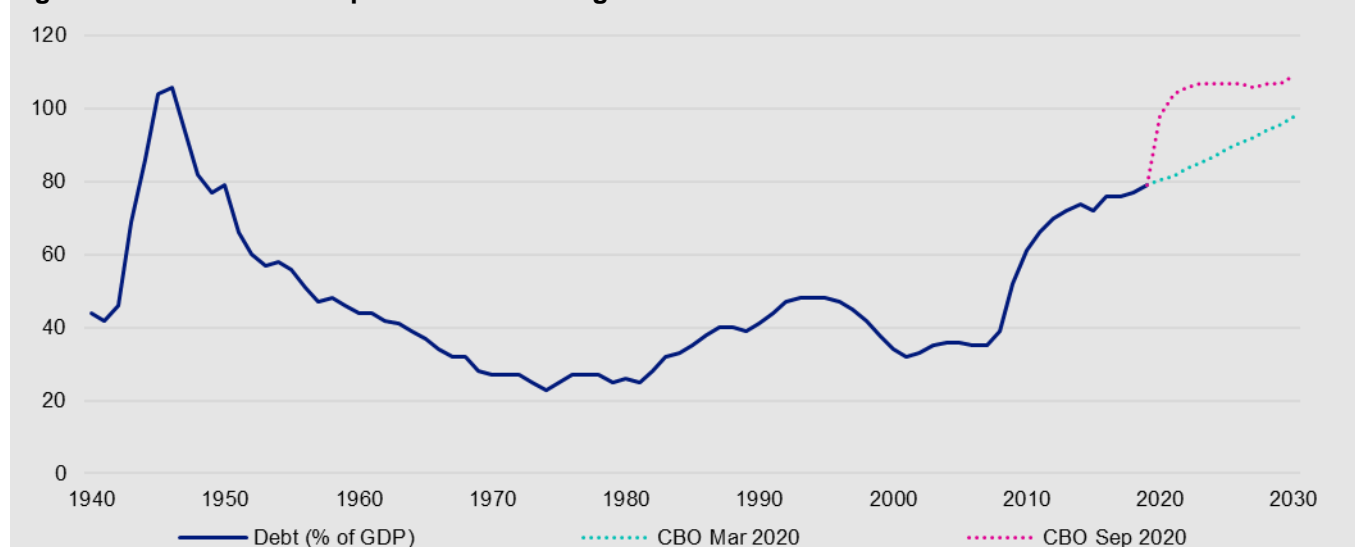
revenue would be transferred to those with the highest marginal propensity to consume. I suspect this is most likely to boost spending on essentials (food, beverage and clothing) and low budget accessories, which could help consumer sectors (though I would not include luxury stocks in that group).

Also, some sectors could benefit from specific policies, notably from extra spending to boost defence (a positive for aerospace & defence), infrastructure (which should help construction and engineering companies) and measures to bolster the Affordable Care Act (potentially helping healthcare providers).

However, this brings us to an inconvenient problem that will confront whoever is the next president: the extra debt burden created by Covid-19. **Figure 3** shows that federal government debt (which had increased to 79% of GDP in 2019) is now predicted by the [Congressional Budget Office](#) (CBO) to be 98% of GDP in 2020 (in March it had forecast 81%) and then 104% in 2021 (82%). That would be the same as in 1945 and in 2022 it is expected to match the record 106% seen in 1946 (and to rise thereafter to 109% in 2030 and 195% in 2050).

Though debt financing costs are currently low (due in part to the effect of Fed asset purchases on treasury yields), I think it would be imprudent to count on that being the case forever. Hence, I suspect there will be pressure on whoever is the next president to raise taxes and/or reduce spending. President Trump could be forced to look like Joe Biden on taxes and Biden would be forced to look like him on spending. Hence, I suspect the impact on fiscal policy of a change in president would be less than it appears.

Figure 3 – The Covid-19 impact on US federal government debt



Note: annual Congressional Budget Office (CBO) data from 1940 to 2019 and CBO baseline estimates from 2020 to 2030 made in March 2020 and September 2020. Source: US Congressional Budget Office and Invesco



There is one way in which I expect Joe Biden to make a big change: the way in which the US interacts with the world. This could bring us back to a world where the US takes a leading role and builds/respects multilateral channels of diplomacy and action.

Importantly for financial markets this could bring a less antagonistic approach to trade relations (Biden is against tariffs, for example). This may sound good to China but it may find itself confronted by a less erratic but more effective (coalition building) US adversary.

I cannot stress enough the importance of “less erratic” when it comes to international relations. Some may believe that constantly wrong-footing business partners is a way to success but I suspect that approach has had a negative effect on global geopolitics. As witness I call gold, which has behaved very differently since President Trump was elected.

Literally, from one day to the next, the yellow metal moved to a substantial premium to my model fair value (based on the historical relationship to real treasury yields, inflation break-evens and the trade weighted dollar). That premium has been so persistent that I recently captured it by adding a “President Dummy” (a dummy variable set to zero before November 2016 and one thereafter). This not only improved the model but also put that “Trump Premium” at \$230.

Hence, gold could be one casualty of a change in president (**Figure 4** suggests it remains above my model predicted fair value of \$1750). However, there

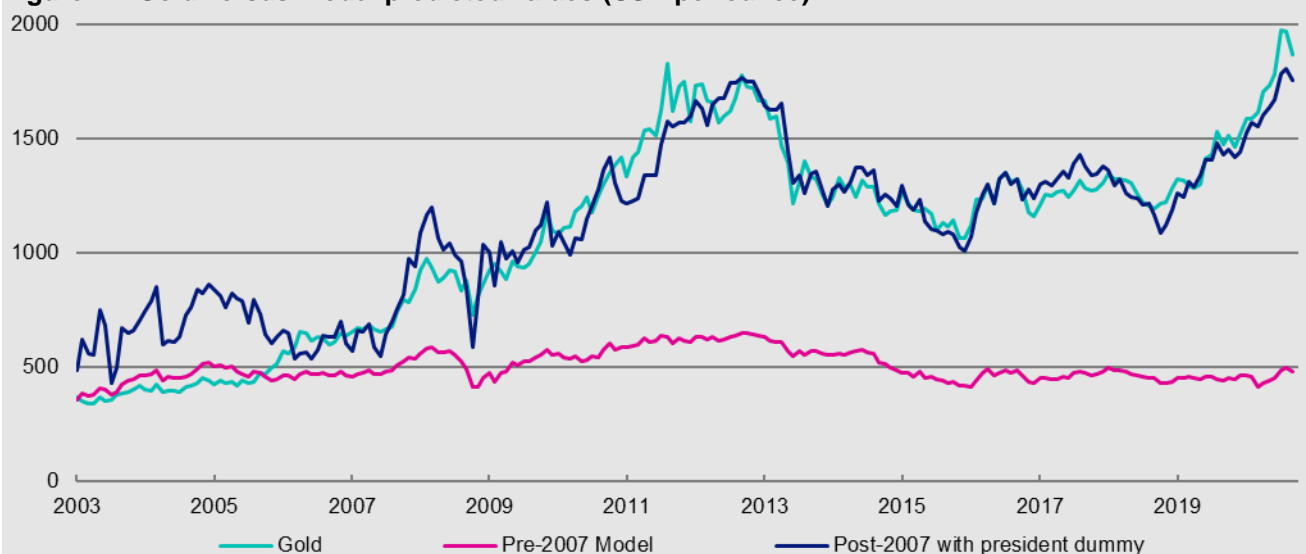
is one scenario under which I think gold could receive a short-term boost from a Biden victory: if President Trump contests the result. Indeed, during the aforementioned webinar, gold was the asset of preference for investors under such an eventuality (followed by treasuries). Equities were at the bottom of the list, an opinion with which I agree.

Anybody familiar with Homeland (the TV series) will have an idea of how bad things could become if President Trump really did refuse to accept defeat but recent statements from senior Republicans suggest he would not have their support. I also doubt that the Supreme Court would take partisanship as far as to distort electoral outcomes nor do I believe that military leaders would serve a president clinging on to power in such a way. So, it may get ugly for a while but I fully expect that Joe Biden will be inaugurated on 20 January 2021 (assuming he wins the election) and that gold could then settle back to its pre-Trump ways.

In summary, precedent warns against panicking about a Democrat in the White House and I suspect fiscal constraints will limit the difference that Joe Biden could make to stock indices. Based on his platform, sectors most under threat include retail, food producers, hospitality, autos, oil & gas, utilities and pharmaceuticals. Consumer businesses catering to those on low budgets could benefit, as could aerospace & defence, construction and healthcare providers (if there are no fiscal constraints). Gold may suffer but could get a contested election reprieve.

Unless stated otherwise, all data as of 25 September 2020

Figure 4 – Gold versus model predicted values (USD per ounce)



Note: Monthly data from January 2003 to September 2020 (as of 24 September 2020). Gold is modelled as a function of real 10-year US Treasury yield, 10-year US inflation breakeven and trade-weighted USD. “Pre-2007 Model” is based on data from 31 January 1997 to 31 December 2006. “Post-2007 Model” is based on data from 31 January 2007 to 30 April 2020. “President dummy” is a dummy variable that was set at zero prior to November 2016 (when President Trump was elected) and one thereafter. There is no guarantee that these views will come to pass. Source: Refinitiv Datastream and Invesco



Figure 5 – Asset class total returns

Data as at 25/09/2020	Index	Current Level/Ry	Total Return (USD, %)					Total Return (Local Currency, %)				
			1w	1m	QTD	YTD	12m	1w	1m	QTD	YTD	12m
Equities												
World	MSCI	555	-2.1	-4.0	6.3	-0.1	8.8	-1.4	-3.6	5.4	0.0	7.9
Emerging Markets	MSCI	1059	-4.4	-4.8	7.3	-3.0	8.1	-3.5	-4.9	6.7	0.9	10.3
US	MSCI	3192	-0.5	-3.8	7.5	5.2	14.5	-0.5	-3.8	7.5	5.2	14.5
Europe	MSCI	1559	-5.5	-5.4	2.1	-10.6	-1.7	-3.4	-3.2	-0.8	-11.9	-6.6
Europe ex-UK	MSCI	1967	-5.7	-5.2	3.4	-5.5	3.4	-3.5	-3.2	0.4	-8.7	-2.4
UK	MSCI	869	-4.7	-6.3	-2.3	-25.0	-16.7	-2.8	-3.2	-5.0	-21.8	-18.8
Japan	MSCI	3364	-1.9	0.8	6.6	-0.7	5.4	-0.7	-0.1	4.4	-3.5	3.4
Government Bonds												
World	BofA-ML	0.21	-0.9	0.0	2.3	6.4	5.6	0.2	0.5	0.6	5.0	3.3
Emerging Markets	BBloom	4.41	-2.1	-2.5	3.2	0.5	3.7	-2.1	-2.5	3.2	0.5	3.7
US (10y)	Datastream	0.66	0.3	0.3	0.3	15.0	13.6	0.3	0.3	0.3	15.0	13.6
Europe	BofA-ML	-0.10	-1.7	-0.6	5.2	7.4	7.5	0.4	1.1	1.7	3.8	1.3
Europe ex-UK (EMU, 10y)	Datastream	-0.53	-1.6	-0.8	4.0	7.3	5.6	0.4	1.0	0.5	3.6	-0.4
UK (10y)	Datastream	0.15	-2.0	-2.5	2.6	2.3	6.5	-0.1	0.6	-0.2	6.6	3.8
Japan (10y)	Datastream	0.01	-1.2	1.1	2.4	2.8	-0.3	0.0	0.2	0.3	-0.1	-2.3
IG Corporate Bonds												
Global	BofA-ML	1.70	-1.1	-0.8	2.8	5.5	7.5	-0.4	-0.2	1.8	4.9	5.9
Emerging Markets	BBloom	4.60	-1.7	-1.3	3.5	4.8	9.1	-1.7	-1.3	3.5	4.8	9.1
US	BofA-ML	2.10	-0.6	-0.5	1.7	6.6	8.3	-0.6	-0.5	1.7	6.6	8.3
Europe	BofA-ML	0.60	-2.2	-1.5	5.4	4.2	6.3	-0.2	0.2	1.9	0.6	0.3
UK	BofA-ML	1.80	-2.5	-2.7	4.4	0.5	7.1	-0.5	0.5	1.6	4.8	4.4
Japan	BofA-ML	0.48	-1.2	1.0	2.5	2.8	1.3	0.0	0.2	0.3	-0.1	-0.6
HY Corporate Bonds												
Global	BofA-ML	6.12	-2.0	-1.7	4.1	-0.3	2.9	-1.6	-1.3	3.4	-0.8	1.9
US	BofA-ML	6.25	-1.6	-1.6	3.9	-1.1	1.3	-1.6	-1.6	3.9	-1.1	1.3
Europe	BofA-ML	4.33	-3.6	-2.6	5.8	0.5	5.0	-1.6	-0.9	2.3	-2.9	-1.0
Cash (Overnight LIBOR)												
US		0.08	0.0	0.0	0.0	0.4	0.8	0.0	0.0	0.0	0.4	0.8
Euro Area		-0.58	-1.8	-1.8	3.4	3.3	5.7	0.0	-0.1	-0.1	-0.4	-0.6
UK		0.05	-1.3	-3.1	2.8	-3.7	3.6	0.0	0.0	0.0	0.2	0.3
Japan		-0.10	-1.0	0.7	2.2	2.8	1.9	0.0	0.0	0.0	-0.1	-0.1
Real Estate (REITs)												
Global	FTSE	1565	-3.8	-4.5	0.3	-20.9	-17.5	-1.8	-2.8	-3.1	-23.5	-22.2
Emerging Markets	FTSE	1796	-5.7	-7.0	-3.2	-24.7	-11.0	-3.8	-5.4	-6.5	-27.2	-16.1
US	FTSE	2477	-3.0	-4.9	-0.8	-21.3	-21.4	-3.0	-4.9	-0.8	-21.3	-21.4
Europe ex-UK	FTSE	3139	-6.7	-4.2	4.0	-14.5	-4.9	-4.7	-2.6	0.6	-17.4	-10.3
UK	FTSE	1091	-6.7	-9.0	-1.5	-30.3	-14.3	-4.8	-6.0	-4.2	-27.3	-16.5
Japan	FTSE	2451	-0.8	0.0	6.2	-16.6	-17.2	0.4	-0.8	3.9	-18.9	-18.8
Commodities												
All	GSCI	1717	-2.7	-4.7	4.0	-33.7	-29.6	-	-	-	-	-
Energy	GSCI	230	-2.1	-9.4	0.3	-53.7	-50.2	-	-	-	-	-
Industrial Metals	GSCI	1212	-3.8	-2.0	8.3	-0.5	0.7	-	-	-	-	-
Precious Metals	GSCI	2147	-6.0	-4.0	3.7	20.0	20.6	-	-	-	-	-
Agricultural Goods	GSCI	325	-3.3	3.1	7.9	-6.5	1.4	-	-	-	-	-
Currencies (vs USD)*												
EUR		1.16	-1.7	-1.7	3.6	3.7	6.3	-	-	-	-	-
JPY		105.62	-1.0	0.7	2.2	2.9	2.0	-	-	-	-	-
GBP		1.27	-2.0	-3.1	2.8	-4.1	2.6	-	-	-	-	-
CHF		1.08	-1.8	-2.2	2.0	4.2	6.8	-	-	-	-	-
CNY		6.82	-0.8	1.3	3.5	2.0	4.5	-	-	-	-	-

Notes: *The currency section is organised so that in all cases the numbers show the movement in the mentioned currency versus USD (+ve indicates appreciation, -ve indicates depreciation). Past performance is no guarantee of future results. Please see appendix for definitions, methodology and disclaimers.

Source: Refinitiv Datastream and Invesco


Figure 6 – World equity sector total returns relative to market (%)

Data as at 25/09/2020	Global				
	1w	1m	QTD	YTD	12m
Energy	-1.8	-1.1	-6.8	-30.5	-32.0
Basic Materials	-3.7	0.6	2.7	1.8	3.4
Basic Resources	-4.5	-0.5	2.2	1.9	6.9
Chemicals	-2.6	2.0	3.2	1.7	-0.3
Industrials	-0.7	1.3	1.9	-2.2	-2.7
Construction & Materials	-1.9	-0.4	0.9	-5.1	-5.2
Industrial Goods & Services	-0.5	1.5	2.1	-1.8	-2.3
Consumer Discretionary	0.7	1.1	5.3	9.4	8.1
Automobiles & Parts	-3.3	2.6	14.9	13.0	13.2
Media	-0.3	-0.8	0.4	-4.4	-3.0
Retailers	3.2	-0.5	5.2	28.3	26.4
Travel & Leisure	-0.7	2.6	3.7	-17.9	-19.6
Consumer Products & Services	0.1	2.8	3.4	8.2	6.8
Consumer Staples	0.3	0.7	-1.5	-1.4	-5.3
Food, Beverage & Tobacco	-0.2	0.2	-2.3	-5.5	-11.8
Personal Care, Drug & Grocery Stores	1.1	1.6	-0.1	6.6	0.7
Healthcare	-0.3	1.6	-2.6	9.3	14.3
Financials	-2.3	-3.1	-5.7	-21.1	-20.9
Banks	-2.6	-4.3	-9.0	-29.1	-28.8
Financial Services	-1.4	-2.2	-3.8	-11.3	-9.6
Insurance	-2.9	-1.9	-1.6	-15.6	-17.2
Real Estate	-0.9	0.2	-4.0	-12.9	-15.7
Technology	3.1	-0.4	4.4	28.0	34.7
Telecommunications	-0.5	-1.5	-4.3	-2.2	-6.9
Utilities	1.1	1.1	-2.1	-4.4	-9.2

Notes: Returns shown are for Datastream sector indices versus the total market index. Past performance is no guarantee of future results.
Source: Refinitiv Datastream and Invesco



Figure 7a – US factor index total returns (%)

Data as at 25/09/2020	Absolute					Relative to Market				
	1w	1m	QTD	YTD	12m	1w	1m	QTD	YTD	12m
Growth	-1.2	-3.6	41.0	8.5	19.8	-0.6	0.5	9.5	4.8	6.4
Low volatility	-0.4	-2.3	26.8	6.5	8.0	0.2	1.9	-1.5	2.9	-4.2
Price momentum	0.4	-3.4	28.1	5.3	9.0	1.0	0.7	-0.5	1.7	-3.2
Quality	-2.1	-3.5	29.1	-3.8	6.2	-1.5	0.6	0.2	-7.1	-5.7
Size	-6.3	-6.1	34.9	-20.9	-13.8	-5.7	-2.1	4.8	-23.6	-23.5
Value	-6.9	-8.0	29.3	-25.1	-18.6	-6.3	-4.0	0.4	-27.7	-27.8
Market	-0.6	-4.1	28.8	3.5	12.6					
Market - Equal-Weighted	-2.7	-3.7	27.8	-6.3	0.7					

Notes: All indices are subsets of the S&P 500 index, they are rebalanced monthly, use data in US dollars and are equal-weighted. Growth includes stocks in the top third based on both their 5-year sales per share trend and their internal growth rate (the product of the 5-year average return on equity and the retention ratio); Low volatility includes stocks in the bottom quintile based on the standard deviation of their daily returns in the previous three months; Price momentum includes stocks in the top quintile based on their performance in the previous 12 months; Quality includes stocks in the top third based on both their return on invested capital and their EBIT to EV ratio (earnings before interest and taxes to enterprise value); Size includes stocks in the bottom quintile based on their market value in US dollars. Value includes stocks in the bottom quintile based on their price to book value ratios. The market represents the S&P 500 index. Past performance is no guarantee of future results.

Source: Refinitiv Datastream and Invesco

Figure 7b – European factor index total returns relative to market (%)

Data as at 25/09/2020	Absolute					Relative to Market				
	1w	1m	QTD	YTD	12m	1w	1m	QTD	YTD	12m
Growth	-3.2	-2.2	30.1	5.5	18.3	0.3	1.6	15.3	20.6	25.6
Low volatility	-2.0	-1.0	17.8	-4.2	0.2	1.6	2.8	4.4	9.6	6.4
Price momentum	-1.7	-0.9	26.7	6.0	15.8	1.9	3.0	12.3	21.1	22.9
Quality	-4.6	-2.8	22.8	-11.9	-0.4	-1.1	1.0	8.9	0.7	5.7
Size	-4.9	-4.5	22.5	-17.3	-5.3	-1.4	-0.8	8.6	-5.4	0.5
Value	-6.8	-9.5	7.8	-33.7	-26.9	-3.4	-6.0	-4.5	-24.2	-22.4
Market	-3.6	-3.7	12.8	-12.5	-5.8					
Market - Equal-Weighted	-4.0	-3.9	17.5	-13.1	-4.7					

Notes: All indices are subsets of the STOXX 600 index, they are rebalanced monthly, use data in euros and are equal-weighted. Growth includes stocks in the top third based on both their 5-year sales per share trend and their internal growth rate (the product of the 5-year average return on equity and the retention ratio); Low volatility includes stocks in the bottom quintile based on the standard deviation of their daily returns in the previous three months; Price momentum includes stocks in the top quintile based on their performance in the previous 12 months; Quality includes stocks in the top third based on both their return on invested capital and their EBIT to EV ratio (earnings before interest and taxes to enterprise value); Size includes stocks in the bottom quintile based on their market value in euros; Value includes stocks in the bottom quintile based on their price to book value ratios. The market represents the STOXX 600 index. Past performance is no guarantee of future results.

Source: Refinitiv Datastream and Invesco



Figure 8 – Model asset allocation

	Neutral	Policy Range	Allocation	Position vs Neutral	Hedged	Currency
Cash	5%	0-10%		10%		
Cash	2.5%			10%		
Gold	2.5%			0%		
Bonds	45%	10-80%		45%		
Government	30%	10-50%	↓	15%		
US	10%		↓	4%		
Europe ex-UK (Eurozone)	8%		↑	2%		
UK	2%		↓	0%		
Japan	8%			5%		
Emerging Markets	2%			4%		
Corporate IG	10%	0-20%		20%		
US Dollar	5%		↓	5%		
Euro	2%		↑	3%		
Sterling	1%			4%		
Japanese Yen	1%		↑	4%		
Emerging Markets	1%		↑	4%		
Corporate HY	5%	0-10%	↑	10%		
US Dollar	4%		↑	8%		
Euro	1%		↑	2%		
Equities	40%	20-60%		30%		
US	24%			14%		
Europe ex-UK	6%		↑	5%		
UK	3%			3%		
Japan	3%		↑	6%		
Emerging Markets	4%		↓	2%		
Real Estate	8%	0-16%		15%		
US	2%			2%		
Europe ex-UK	2%		↑	4%		
UK	1%		↑	3%		
Japan	2%		↓	4%		
Emerging Markets	1%		↓	2%		
Commodities	2%	0-4%		0%		
Energy	1%		↓	0%		
Industrial Metals	0.3%			0%		
Precious Metals	0.3%			0%		
Agriculture	0.3%		↓	0%		
Total	100%			100%		
Currency Exposure (including effect of hedging)						
USD	49%		↓	38%		
EUR	20%		↑	18%		
GBP	7%		↓	11%		
JPY	15%		↑	21%		
EM	8%		↓	12%		
Total	100%			100%		

Notes: This is a theoretical portfolio and is for illustrative purposes only. See the latest [The Big Picture](#) document for more details. It does not represent an actual portfolio and is not a recommendation of any investment or trading strategy. Arrows indicate the direction of the most recent changes.

Source: Invesco



Figure 9 – Model allocations for global sectors

	Neutral	Invesco
Energy	4.2%	Neutral ↓
Basic Materials	4.2%	Neutral
Basic Resources	2.3%	Underweight
Chemicals	2.0%	Overweight
Industrials	12.4%	Underweight
Construction & Materials	1.5%	Underweight
Industrial Goods & Services	10.9%	Underweight
Consumer Discretionary	14.5%	Underweight
Automobiles & Parts	2.1%	Underweight ↓
Media	1.3%	Underweight
Retailers	5.4%	Neutral
Travel & Leisure	1.9%	Underweight
Consumer Products & Services	3.9%	Neutral ↑
Consumer Staples	7.4%	Overweight
Food, Beverage & Tobacco	4.7%	Overweight
Personal Care, Drug & Grocery Stores	2.7%	Overweight
Healthcare	11.0%	Neutral
Financials	14.7%	Neutral
Banks	6.7%	Overweight
Financial Services	4.4%	Neutral
Insurance	3.6%	Underweight
Real Estate	3.9%	Overweight
Technology	19.2%	Overweight
Telecommunications	4.9%	Neutral
Utilities	3.6%	Neutral ↑

Notes: These are theoretical allocations which are for illustrative purposes only. They do not represent an actual portfolio and are not a recommendation of any investment or trading strategy. See the latest [Strategic Sector Selector](#) for more details.

Source: Refinitiv Datastream and Invesco



Appendix

Methodology for asset allocation, expected returns and optimal portfolios

Portfolio construction process

The optimal portfolios are theoretical and not real. We use optimisation processes to guide our allocations around “neutral” and within prescribed policy ranges based on our estimations of expected returns and using historical covariance information. This guides the allocation to global asset groups (equities, government bonds etc.), which is the most important level of decision. For the purposes of this document the optimal portfolios are constructed with a one-year horizon.

Which asset classes?

We look for investibility, size and liquidity. We have chosen to include: equities, bonds (government, corporate investment grade and corporate high-yield), REITs to represent real estate, commodities and cash (all across a range of geographies). We use cross-asset correlations to determine which decisions are the most important.

Neutral allocations and policy ranges

We use market capitalisation in USD for major benchmark indices to calculate neutral allocations. For commodities, we use industry estimates for total ETP market cap + assets under management in hedge funds + direct investments. We use an arbitrary 5% for the combination of cash and gold. We impose diversification by using policy ranges for each asset category (the range is usually symmetric around neutral).

Expected/projected returns

The process for estimating expected returns is based upon yield (except commodities, of course). After analysing how yields vary with the economic cycle, and where they are situated within historical ranges, we forecast the direction and amplitude of moves over the next year. Cash returns are calculated assuming a straight-line move in short term rates towards our targets (with, of course, no capital gain or loss). Bond returns assume a straight-line progression in yields, with capital gains/losses predicated upon constant maturity (effectively supposing constant turnover to achieve that). Forecasts of corporate investment-grade and high-yield spreads are based upon our view of the economic cycle (as are forecasts of credit losses). Coupon payments are added to give total returns. Equity and REIT returns are based on dividend growth assumptions. We calculate total returns by applying those growth assumptions and adding the forecast dividend yield. No such metrics exist for commodities; therefore, we base our projections on US CPI-adjusted real prices relative to their long-term averages and views on the economic cycle. All expected returns are first calculated in local currency and then, where necessary, converted into other currency bases using our exchange rate forecasts.

Optimising the portfolio

Using a covariance matrix based on monthly local currency total returns for the last 5 years and we run an optimisation process that maximises the Sharpe Ratio. Another version maximises Return subject to volatility not exceeding that of our Neutral Portfolio. The optimiser is based on the Markowitz model.

Currency hedging

We adopt a cautious approach when it comes to currency hedging as currency movements are notoriously difficult to accurately predict and sometimes hedging can be costly. Also, some of our asset allocation choices are based on currency forecasts. We use an amalgam of central bank rate forecasts, policy expectations and real exchange rates relative to their historical averages to predict the direction and amplitude of currency moves.



Definitions of data and benchmarks for Figure 5

Sources: we source data from Datastream unless otherwise indicated.

Cash: returns are based on a proprietary index calculated using the Intercontinental Exchange Benchmark Administration overnight LIBOR (London Interbank Offer Rate). The global rate is the average of the euro, British pound, US dollar and Japanese yen rates. The series started on 1st January 2001 with a value of 100.

Gold: London bullion market spot price in USD/troy ounce.

Government bonds: Current levels, yields and total returns use Datastream benchmark 10-year yields for the US, Eurozone, Japan and the UK, and the Bank of America Merrill Lynch government bond total return index for the World and Europe. The emerging markets yields and returns are based on the Barclays Bloomberg emerging markets sovereign US dollar bond index.

Corporate investment grade (IG) bonds: Bank of America Merrill Lynch investment grade corporate bond total return indices, except for in emerging markets where we use the Barclays Bloomberg emerging markets corporate US dollar bond index.

Corporate high yield (HY) bonds: Bank of America Merrill Lynch high yield total return indices

Equities: We use MSCI benchmark gross total return indices for all regions.

Commodities: Goldman Sachs Commodity total return indices

Real estate: FTSE EPRA/NAREIT total return indices

Currencies: Global Trade Information Services spot rates

US equity index for Figure 2

We have calculated a total return index for broad US stocks based on index and dividend data from US academic Robert Shiller and Datastream. The index prior to 1926 is Robert Shiller's recalculation of data from Common Stock Indexes by Cowles & Associates (see [here](#)). From 1926 to 1957, the Shiller data is based on the S&P Composite Index and thereafter is based on the S&P 500 as we know it today.



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