



## Weekly Market Comment

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It's been another week where political dramas have dominated the headlines, whether it was Trump's revolving doors for his senior staff in the White House, Germany's car builder summit to save the diesel engine or never ending Brexit positioning. However, for the global investment community, a raft of data releases made the week far more substantial.

Over 70% of Q2 corporate earnings announcements have been published and the results are encouraging. Average annual profit growth (EPS – 3<sup>rd</sup> line in table below) has been solid and in all cases at least 10%. This is not quite as strong as the first quarter, but that measured against a much weaker starting position of the 'crash Q1' of 2016. These results justify risen and elevated equity valuation levels somewhat, but most importantly consolidate the corporate earnings picture, in the sense that they prove the previous two quarters were not just flash-in-the-pan type episodes.

### Q2'17 Results snapshot

	US	Europe	EURO-Zone	
% cos reported	77%	71%	72%	52%
% cos beating EPS	76%	58%	56%	70%
EPS %y/y	10%	13%	11%	25%
% cos beating Sales	67%	58%	55%	63%
Sales %y/y	5%	7%	6%	6%

Source: Bloomberg, J.P. Morgan

This impression was further underpinned by solid readings of forward looking economic indicators (PMIs), which tell us with some certainty that the synchronised global economic expansion remains on track, with all major regions reporting expanding activity levels. The only exception appears to be India, where businesses are struggling to digest the major change in the tax system – as we reported a couple of weeks ago.

What slightly spoils the broth is that there are very little signs of further acceleration. Positive growth? Yes. Indications of accelerating growth levels? No. And this is evident in both, the macroeconomic PMI levels as well as the corporate outlook statements.

We appear to have reached a fragile Goldilocks equilibrium, where the status-quo is satisfactory but not exciting, and where there is also nothing much to excite on the horizon.

Nevertheless, equity market investors, particularly in the US, were pleased about the lack of disappointment and pushed indices in some instances to new highs. Overall, however, better results did mostly not result in surging stock prices. It would appear there is some further concerns in the air.

That would be the declining bond markets, where yields rose on the improving economic resilience and the prospect that central banks will gradually be reducing their QE-induced bond stock piles, as there is less and less justification for the continuation of extraordinary monetary stimulus measures.

If the prospect of potential bond market stress is keeping investment strategists nervous, then the North Korea tensions are making all those with additional political radar even more nervous. The Trump administration's ramping up of trade repression rhetoric towards China is, in the opinion of political insiders, really aimed at 'encouraging' China to put more pressure on its northern neighbour and previously close ally. We discuss this situation in detail in our second article this week, and explain why it is possibly more worrisome than it may currently seem.

In the UK, the Bank of England's decision to keep rates at their ultra-low levels, together with their explanation why, informs us that the first rate rise of this decade is still beyond the next 12 months' horizon. We take the opportunity in the third article to look at the various economic parameters the rate setters at the UK's central bank consider.

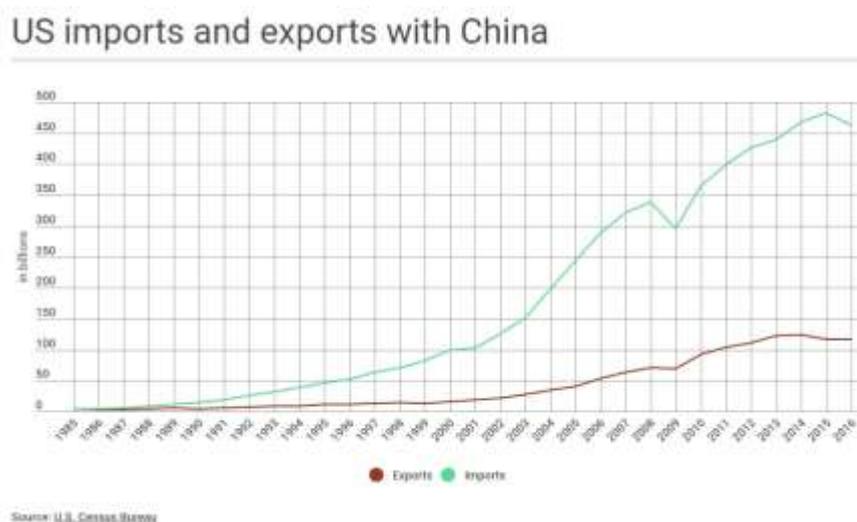
Back to global finances. Our guest economist Duncan O'Neill and our head of investment Jim Kean discuss in the fourth article why the four rate rises that the US central bank has already applied have not led to a tightening of financial conditions and why it is therefore probable that central banks will use the unwind of their QE positions to a larger extent than markets currently anticipate. This would also explain why some monetary policy heavy weights like longtime Fed chair Alan Greenspan are sending fairly explicit warnings to bond investors to brace for losses.

Finally, in our fifth article we continue with our series about the technology mega companies Amazon, Apple, Facebook, Google/Alphabet and Microsoft and discuss their significance for the future global economy.

## Trump cracking down on China or North Korea?

In the press this week, the rumblings of a 'trade war' between the US and China have been whirring up. President Donald Trump is expected to order trade representative Robert Lighthizer to conduct a formal investigation into "unfair" Chinese trade practices, including alleged intellectual property theft.

The investigation will be done under the infamous section 301 of the Trade Act of 1974, which allows the President to unilaterally impose tariffs or other trade restrictions on international companies in order to protect US industries. If the investigation did lead to the imposition of tariffs



or other trade barriers, it could generate big headwinds for Chinese exporters. Behind the EU, the US is China's largest trading partner, the two countries generating \$521 billion in trade in 2014.

The section 301 measures have been largely retired since the inception of the World Trade Organization (WTO) in 1995, with many in the international community finding them a major irritation. But both Lighthizer and Commerce Secretary Wilbur Ross have recently bemoaned the slowness of the WTO's dispute resolutions, as well as its apparent anti-US bias. Back in the 1980s, section 301 tariffs were used against Japanese exporters to stem the US' large trade deficit with Japan.

Trump has long had gripe with Chinese trade practices, promising on his presidential campaign trail to label the country a currency manipulator on his first day in office. That label never came, however, and the US-China relationship has since looked a great deal more relaxed after Trump met with Chinese President Xi Jinping in April. So, what has pushed threats to trade with China back to the top of the agenda?

According to Reuters, Trump's interest in cracking down on China's trade malpractice is more to do with the North Korea issue than trade alone. At that April meeting, Trump and Xi appeared to come to an agreement over what was to be done about the hermit nation, with China expected to curtail the North Korean missile program through increased sanctions. But Trump is unhappy with the progress – or lack thereof – that has been made on the sanction front. Just last week, North Korea successfully tested another missile with intercontinental range.

The timing of the move backs up this angle. Trump's recent appointment of Former US Marines General John Kelly to the role of Chief of Staff suggests a renewed emphasis on foreign policy matters, among which North Korea is the priority. Given that the investigation has come so soon after Kelly's appointment, it is likely that it does have something to do with the US' urgency on North Korea.

Historically speaking, this is a significant change in tack. Past US presidents have usually tried to separate national security issues from trade issues. The Trump administration has explicitly linked these, saying before that "if China cooperates on North Korea, we will give them a better deal on trade". The conflation of these issues has annoyed the government in Beijing, with the Chinese vice commerce minister saying this week that they are "completely different domains."

The Chinese government have also been at pains to explain that they haven't been sitting idly by while Kim Jong-Un runs amok. "As Beijing has said, repeatedly, it does not have the kind of 'control' over Pyongyang that the U.S. president believes it does," said Chinese state media on Wednesday morning, who also stressed that North Korea nuclear capabilities posed a threat to them too.

There is partial truth in this. Back in February, China suspended coal imports from North Korea, adding to the existing UN sanctions of which China is supportive. State-owned oil giant China National Petroleum Corporation also suspended fuel sales to North Korea in June. But it's undoubtedly true that China could do more to isolate the hermit nation. Experts believe that Beijing fears a collapse of the North Korean government and the inevitable refugee crisis it would bring, and hence are unlikely to completely cut them off from resources.

We believe that it is uncertain whether the investigation will actually lead to unilateral action. Firstly, it's worth pointing out that restrictions on China is yet another campaign pledge that has yet to

materialise, leading many to view the noise coming out of the White House as just that. This might explain why US equities were unmoved by the news, with the S&P 500 still trading near record highs. Furthermore, it's possible that the threat of sanctions could be simply a way of forcing China to the negotiating table. As James Bacchus, former WTO chief judge, said, "This could merely be leverage for bilateral negotiations,"

On the other hand, the issue of Chinese trade restrictions has bipartisan support in the US houses of congress – something that is incredibly rare these days. Earlier this week, three top democratic senators urged President Trump to stand up to China, with Senate Democratic leader Chuck Schumer even suggesting that Trump should skip the investigation and go straight to trade action. A tougher approach to China on trade is very popular among US businesses, particularly manufacturers. But, it should be noted that the issues here are a bit complex. The areas that US companies in China want Trump to focus on are intellectual property rights and access to Chinese markets, while domestic manufacturers are often more concerned with the US' trade deficit with China and the latter's steel dumping.

If trade tensions do escalate between the world's two largest economies, it could raise some issues for international markets. Global currency volatility has increased recently, and US-China tensions mean that that's unlikely to subside. In themselves, US tariffs on Chinese goods like steel are unlikely to have a large impact on global asset markets – other than perhaps through the inflationary effects for US consumers. The larger worry (for the short term at least) would be retaliation from Beijing.

In general, the main fear is that rougher relations between the US and China are actually an indication of a much tougher stance towards North Korea. On this, we note that John Kelly's appointment might make Trump's foreign policy more confrontational and more military focused.

In other words, we are less concerned about an imminent Sino-American trade war, as we are about an unfortunate meeting of minds, between a drama-loving US president and a chief of staff in the White House who understands the effects of military confrontation better than the subtle ways and means of diplomacy. Should this ultimately lead to another US military campaign to prevent a despot from establishing WOMD capability (Weapons of mass destruction), then all bets are off and we would have to assess very carefully how the situation might develop.

## UK interest rates – when might they rise?

This week, the Bank of England (BoE) held its Monetary Policy Committee meeting (MPC) that decides the central bank's base (interest) rate and released its July Inflation Report. The previous meeting in June had held a surprise, with the committee voting 5-3 against a rate hike, leading to speculation that the UK may actually be closer to a first rate rise this decade than generally anticipated. The end outcome of this month's meeting was once again a 'no rise' vote, but also a reduced impression that rates would rise in the near term. This time, only 2 members voted for a rise, resulting in a 6-2 MPC vote against a rise. This had been widely expected, after one of the members who had voted for a rise last time had left the MPC on one of its regular membership rotation schedules.

The BoE's economic indicators, found in the inflation report, have been closely scrutinised, to try discover what might push other committee members to vote for a base rate increase. In the last three meetings, it has been GDP growth, inflation, unemployment and more recently consumer credit as the prominent themes, but the latest press conference focused on these and a growing theme; the potential disruption impact of Brexit. We will analyse these prominent themes and trends, pointing out what we believe may lead to change in any of them in the year ahead and the potential impact this may have on the UK base rate decisions going forward.

### *GDP – Economic growth*

In May, the BoE forecast GDP growth at 0.4% quarter on quarter, but since then the estimates have been revised down to 0.2%, coinciding with falling consumer confidence (now at a level we last experienced in the immediate aftermath of the Brexit referendum vote). The central banks GDP forecast on Thursday revised full year 2017 GDP to 1.7%, down from the already meagre 1.9% in May. This is in line with the International Monetary Fund forecast announcement last week, in which it quoted the slowdown in consumer-led growth. The BoE clearly sees a slower growth outlook for the remainder of the year. If it stays this way, this very markedly reduces the likelihood of a rate rise, as there clearly would be more reason to consider additional stimulus rather than tightening. The continued Brexit uncertainty and lacklustre consumer and business demand mean growth forecasts could be revised downwards further, as consumers cut back further and businesses lack the confidence to invest for growth.

### *Inflation*

Earlier in the year, concerns over the sharp spike in UK inflation, due to the depreciation of sterling and rising input costs (imports and recovering commodity prices), led to the BoE forecasting inflation at 3% by the Autumn. Yet, in June, inflation fell to 2.6% whilst the oil price stabilised and £-Sterling depreciated further only against the €-Euro, but rose against the US\$. The latest statement from the BoE indicated that it sees its assertion that the spike is only transitory, confirmed, still forecasting a peak of 3% in October but then a rapid fall back to around 2% in the coming years. If inflation was to rise sharply, notably due to significant further depreciation in £-Sterling - we see this only to be possible if Brexit negotiations go very badly - then BoE would then face the tricky position of no growth and further price rises, which make it even harder to 'sell' further monetary stimulus. For now, this is less of a concern and, if anything, inflation remains within the range the BoE is targeting.

### *Spare capacity*

BoE governor Mark Carney and predecessor Mervyn King are well versed in discussing spare capacity or 'slack' in the UK economy, a prominent feature of the UK jobs market since 2010. The latest unemployment figures are positive for the economy, with continuous growth in the workforce and falling unemployment – now at a lower level than the MPC expected. The MPC previously said that "continued growth of employment could suggest that spare capacity is being eroded away and this would reduce the MPC's tolerance of above target inflation". The main indicator here is wage growth, and, with wage growth remaining weak and importantly below the rate of inflation, this is not as much of a pressing issue as it could be for the committee. When wage growth does come through, then this would increase consumers' ability to absorb rising mortgage-servicing costs through rate rises. Since real wage growth usually goes hand in hand with decent economic

growth, it is then most likely an interest rate rise would follow (as we have pointed out before). For now, that pressure is subdued.

### *Consumer credit*

As discussed above, three main indicators for the central bank – GDP growth, unemployment and inflation – are mixed and not pushing the committee to change the interest rate in the near term. An additional area covered more recently by the committee is the rise of consumer credit. The BoE previously used the phrase increasing “pockets of debt” as consumers have been able to shoulder ever larger amounts of debt, due to the low interest they have to pay. Deputy Governor Ben Broadbent’s comments on Friday indicated that the committee is no longer as concerned about consumer debt levels, because they recently stopped rising and consumer credit relative to income remains lower than its pre-crisis peak. However, the MPC understands that, if consumer credit were to continue to rise, it may need to act. But for now it seems it is not a “first-order” macro issue for the bank. With this in mind, if it was to reach pre-crisis levels, it is likely the BoE will act to lower the availability of credit in the banking system by encouraging stricter lending requirements. Tighter lending standards that reduce credit availability – as has been enforced in the mortgage markets in the past, is a probability if the MPC wants to reign in consumer credit but not increase cost of credit to businesses.

### *Brexit uncertainty*

We left this “new indicator” to last, mainly because there is much debate and little clarity about the influence Brexit is having or could have on the UK economy. But the comments in Mark Carney’s press conference this week highlight it as a growing concern for the central bank. According to the Governor, the importance of a clear trajectory to “exit”, as the 2 year Brexit clock ticks, is something the UK needs. Carney focused heavily on changing demand and supply dynamics in the economy as businesses and households delay consumption and investment decisions, as they await more Brexit clarity. This is weighing on growth, as shown by the lowered forecast for GDP. It should be expected that the MPC will discuss Brexit more in the September/October meeting, if the exit trajectory has not been laid out, but just as much if more clarity has emerged. For this reason, uncertainty and slowing growth are likely to reduce the probability of a rate rise anytime soon. For now, the discussion of Brexit by Carney was more of an encouragement to Government to fast-forward the negotiations to provide certainty and stability to the businesses and households.

When should we expect a rate rise then?

Under the current BoE forecast scenario, it is near impossible to see a justification for any rate rise in the near future – there’s too much slowing the UK economy to below ‘stall-speed’. This is not a comfortable position to be in, given it leaves little additional monetary stimulus potential if the economy was to fall back into recession.

As for the next meeting, the further development of economic data will be of utmost importance. Should UK economic growth be buoyed by additional demand from the currently strongly expanding rest of Europe, then the prospect of a first rate rise may come into sight for some time in 2018. However, if Brexit uncertainty continues to undermine confidence of the UK’s businesses and consumers, then the BoE’s first rate rise is very likely to move out further once again.

## FCI's and monetary policy

Over the past weeks, there have been various articles in financial papers suggesting that markets were underestimating the speed at which the monetary policy cycle would turn from 'easy' to tightening. They pointed out that it was likely that there would be a far sooner than anticipated return to more normal/tighter monetary conditions – such as the US Fed's stated intention to start reducing their stock of QE (quantitative easing) holdings, probably from September 2017.

In his FT blog this week, Gavyn Davies (now of Fulcrum Asset Management, previously Goldman Sachs' chief economist) reflected on broadly the same issue, albeit with an entirely different conclusion. Employing research and data from the IMF, Goldman Sachs and others, he illustrated that change in the (short-term) interest rate alone is not necessarily a reliable indicator for the impact of monetary policy – or, more generally, the behaviour of the financial sector – on the economy.

The focus of Davies' analysis are FCIs (financial conditions indicators, or indices). These have been developed by institutions (such as Goldman Sachs and the IMF) with the aim of capturing the impact of broader liquidity factors, beyond short-term rates, on the *real* economy (typically over a 1-year period). These factors include bond yields, credit spreads, exchange rates, the equity market, and volatility.

The introduction of QE has meant that central banks have had more direct influence on the factors contained in the FCIs than they had had before just through interest rates, and so have sought to understand whether these influences are restrictive or accommodative on economic activity.

Goldman Sachs FCI weights (Sep16)

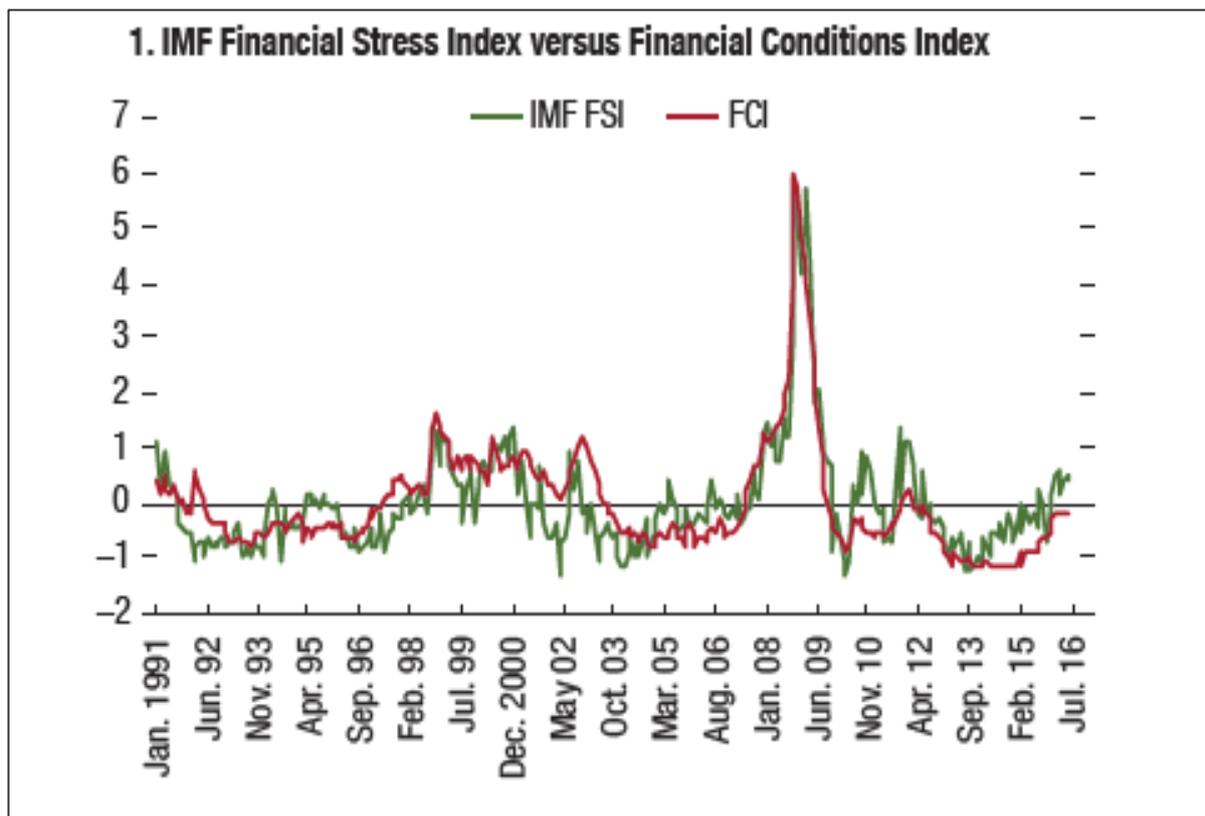
	US	Eurozone	Japan
Short-term "policy" rate	4.4	17.3	12.5
Long-term riskless yield	45.1	34.3	59.1
Government bond spread to riskless yield		27.0	
Corporate credit spread	39.6	11.4	19.3
Equity prices	4.9	2.2	2.0
Exchange rate (trade weighted)	6.0	7.8	7.1

Source: Goldman Sachs, roundings approximated by Tatton IM)

Typically, the indices are a weighted average of indicators, where the weight of a component depends on its power to forecast, or impact, economic activity. The table above shows the current weightings of Goldman Sachs' FCIs (note: the weights do not necessarily reflect their contribution to "impact").

As Davies writes, there are quite important differences on the components and weightings of FCIs, but they do provide a more comprehensive view of overall financial conditions.<sup>1</sup> For example, the IMF's recent report on *Financial Stability* contained FCIs for a number of advanced economies. The FCI relating to the US provides a good overview of how financial conditions (indices) may not simply follow short-term interest rates (see graph below).

**US: Financial Conditions Indices, 1991–2016**



Source: IMF, *Global Financial Stability Report*, Apr 2017

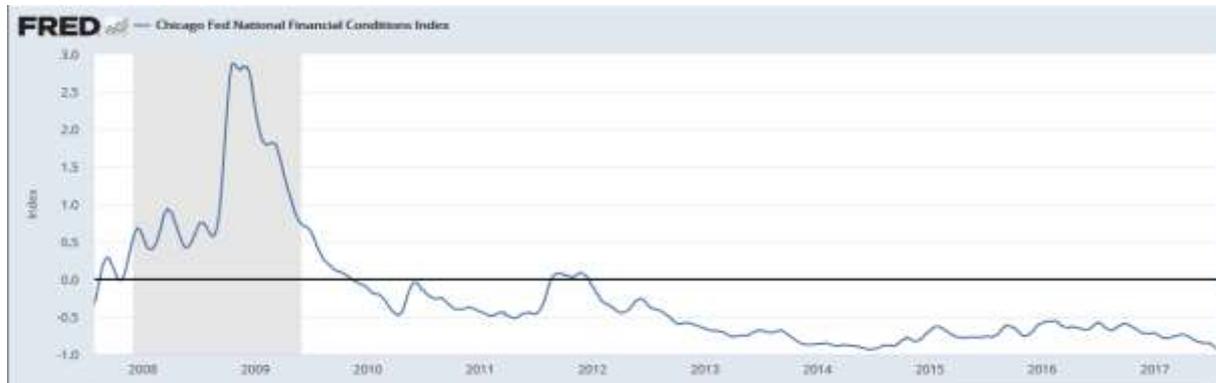
The severe lack of liquidity and subsequent overall tightening in financial conditions during and immediately after the Global Financial Crisis (GFC) can be observed in the large spike in the graph (2008/09), whereas, the loosening of financial conditions – driven by the very low interest rates and QE set by the central banks – is observed from 2009 onwards. I.e. a higher number denotes lack of liquidity whereas a low or negative number records monetary ease. Against this backdrop, it is interesting to note that the US FCI remains below 0 (zero) even after the US Fed's 4 increases in the interest rate, which began in December 2015.

The IMF's view accords with that of the (Chicago) US Fed – see graph below. Indeed, notwithstanding the Fed's intention to raise rates and gradually unwind its balance sheet, the Fed's own analysis suggests that financial conditions might actually be set to loosen even further. As Davies states, "financial conditions in the US have not responded to the Fed's desire to normalise policy through the gradual increase in the interest rate. In fact, the reverse.

<sup>1</sup> This note does not discuss the pros and cons of FCIs, nor arguments around the cause and effect, e.g., whether the FCI's are the effect of interest rate policy and whether policy-makers should just focus on the policy and not the secondary effects.

The policy (interest) rates have been increased by 1% (4 x 0.25%), but all of the main FCIs in the US have shifted significantly towards easing over the same period”.

### US National Financial Conditions Index



Source: Federal Reserve Bank of St Louis, August 2017

So, what is this telling us? Firstly, although rising US short-term interest rates might lead one to expect a slowdown in the economy, financial conditions suggest that not to be the case. QE has weakened the impact that short-term rates have on long-term assets, although the impact on currencies may still be quite strong (see this week’s movement in £-Sterling in response to the Bank of England’s decision to maintain the base rate).

Today’s integrated, global economy means that finance flows easily from one region to another. So, it is unsurprising that global financial conditions account for 20 to 40% of the variation in countries’ domestic financial conditions. There is much debate as to whether the importance of this global factor has changed over the past two decades, especially since QE. The evidence suggests that US financial conditions have more impact on other regions’ conditions than the reverse.

In the case of the US, the loosening in financial conditions has been accelerated by a depreciating \$-Dollar, and there may now also be an even greater lag between “short money” policy and (financial) conditions. The overview also suggests that markets may have effectively “offset” the Fed’s tightening policy. For example, through increased asset prices, lower credit spreads and other factors. All of these factors will impact economic activity, e.g. asset prices influence consumer wealth, which in turn determines consumer spending behaviour; companies raise capital through the asset markets and then invest it.

Davies’ article indicates, “[FCIs] should be seen as important intermediaries that can influence the transmission of interest rate policy into the wider economy”.

For us, the most important questions revolve around what the current state of the FCIs tell us about future central bank policy, especially the US Fed’s Federal Open Markets Committee (FOMC).

Quantitative easing has probably been a success. Ray Dalio (the founder of the world’s largest hedge fund Bridgewater Associates) certainly thinks so. Others see “financial repression”. What is agreed by most is that its effects on the economy have been uncertain and that it is therefore a blunt instrument, one that is not amenable to fine tuning. Also, even if QE was

necessary to offset the problems of crisis, that crisis is not evident now. But, QE's effects probably still persist.

That's the first message: Interest rate setting policy isn't reaching the economy. Thus, if the Fed sees a risk of economic overheating, then gradual removal of QE liquidity now would be timely and possibly necessary.

The second message is that we should expect the Fed to want the FCI to tighten – simply because they are not getting any traction through rate rises. It won't tell us that it's targeting the components (Alan Greenspan had a bad time in the 1990s over these sorts of messages). Still, it will want to see some combination of credit spread widening, bond yields rising, and equity markets valuations being less stretched to prevent capital markets from amplifying the effects of the next downturn – whenever that downturn may be.

However, the very last thing they will want to risk is misallocation of capital, as a consequence of false pricing signals, derailing the economy (once again) by itself.

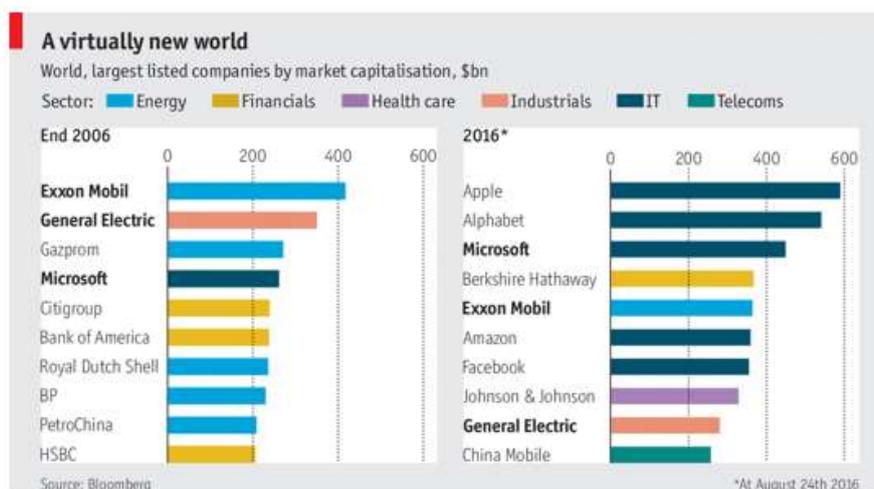
The above is not equivalent to “good” markets. Just as QE is generally accepted to have helped capital markets to rise to higher levels than they would have achieved without, it is reasonable to assume that its withdrawal will now constitute a drag. The same is not true for the economic outlook at this point, because policy normalisation could further improve confidence levels and regular capital allocation.

So, the updated outlook may not be “bad”, but market upside looks decidedly limited and tied to the further upward progress of the economy.

## Technology, turning points and Happy Birthday Apple iPhone

When historians analyse eras or epochs, they often cite key moments or turning points, when the status quo faced disruption. History then bifurcates into periods of 'before' and 'after'.

Previous markers like the industrial revolution, globalisation and the birth of the internet spring to mind. Identifying investment opportunities using hindsight is easy, but there are signs today that the technologies hitting the market now are the vanguard of a new revolution – technologies like artificial intelligence, augmented/virtual reality (AR/VR), autonomous & electric vehicles.



In the past, technologies slowly filtered out into the market, taking time to achieve market acceptance. The 10 biggest firms ten years ago were energy, financials and industrial firms, but these have largely been replaced by the big five technology firms of Amazon, Google (Alphabet), Microsoft, Facebook and Apple.

Now, these firms are the platform, providing the infrastructure on which information and services across all sectors run. They become the centre of gravity for the wider economy, pulling in profits, bolstering their size, scope, and influence, leaving everyone else struggling in their wake.

The big 5 also occupy the exclusive \$500 billion market capitalisation club. The combined market cap of these companies is a whopping \$3 trillion, equivalent to 16% of US GDP. They hold a total of \$520 billion in cash on their respective balance sheets.

Few may have predicted tech's growing hold and dominance over the global economy over the past decade. Their capital and labour light business models (they employ only around half a million staff) provides a natural cost advantage over traditional capital and labour intensive industries, which are increasingly under threat from the big 5.

Sales have increasingly concentrated among fewer firms. Goldman Sachs estimate that the share of total industry sales for the 4 biggest US companies in the general merchandise stores industry rose from 55.9% in 1997 to 82.7% in 2012, with the most profound effects taking place in the retail (including food), telecoms and media sectors. This shows how the Amazon effect has started to dominate US retail. The productivity of digital industries has grown 2.7% annually over the past 15 years, versus 0.7% annually for older industries.

However, the big 5 did not obtain financial and market dominance by accident, nor in a single technological leap.

A 'single leap' is actually the result and culmination of longer-term trends arriving during a specific time window. These trends are actually a stream of smaller innovations ('Kaizen' in Japan) that coalesce into technologies like AI or electric & autonomous vehicles.

The iPhone celebrates its 10<sup>th</sup> birthday this year. It too, was the end result of converging trends, appearing when the market was ready.

Not only did the iPhone change the fortunes of a computing company, it also altered the future direction of the telecoms and consumer technology sectors. Industry watchers now talk about smartphones in pre and post-iPhone eras.

When it was introduced in 2007, some called it visionary, even magical. A number of industry watchers remained sceptical, as everyone 'knew' the paradigm: a phone had to have a keyboard. Steve Ballmer, Microsoft's CEO in 2007, [famously laughed off](#) the competitive threat from Apple's iPhone.

He said there was "no chance" that it would "get any significant market share", as it would be "the most expensive phone, by far, in the market place", noting it "lacked a keyboard for email" for enterprise users.

He was right. The iPhone did not have a keyboard and it was more expensive, but 10-years later, over 1 billion iPhones sold and more than a quarter of a trillion dollars in cash (\$270 billion) on

Apple's balance sheet, it seems obvious now that the introduction of the iPhone was a turning point. Poor Steve Ballmer.

The iPhone's individual components were nothing special, perhaps even outdated at the time. Few appreciated what the iPhone represented in 2007, but, in hindsight, the combination of an iPod, phone and internet device with a pure touch interface proved to be revolutionary.

Fast forward to 2016, the mass market got its taste of Augmented Reality (AR) through Nintendo's Pokemon Go smartphone game, while Sony brought Virtual Reality (VR) down to a mainstream price. This year has seen further innovations like Tesla's fully electric Model 3 arrive with an autonomous mode for around £30,000.

Prices should fall as the technology matures, but Tesla still receives 2,000 orders per day for the Model 3. This appears to have large German manufacturers concerned. The topic came up at this week's extraordinary meeting of the likes of VW, BMW and Mercedes. Perhaps they need to be wary of a firm like Tesla, given their focus on diesel cars – which are seeing declining sales, as environmental regulations tighten.

It can be easy to forget that each of the big five started life targeting single areas, like search for Google or selling books for Amazon. They have since grown well beyond what was originally conceived. Today, there is not an industry where these 5 are not competing. Music, movies, shipping, delivery, transportation, space and energy: the list keeps expanding.

At Apple's earnings announcement this week, CEO Tim Cook hinted the company was making a "big investment" in a "large project". Some have speculated that this could be the oft-rumoured Apple car, but others thought Cook could be referring to a much larger idea of automated manufacturing and personal robots.

Today, these companies no longer offer standalone products. They are a piece in a larger cohesive jigsaw we call a platform. These platforms surround and support individual products by sharing data across multiple devices to be used as needed by the customer. Apple (iOS) or Google's (Android) platforms dominate the mobile computing space and no one else can even compete unless you can plug into these systems.

The future that the big 5 are creating is built around global platforms that at times will overlap, but they are designed to allow expansion of future innovations like AI, personal robots and automated vehicles. Perhaps we will look back a few years from now and talk about 2016/2017 as window which marked the all-encompassing platform era.

# PERSONAL FINANCE COMPASS

## Global Equity Markets

MARKET	CLOSE	% 1 WEEK	1 W	TECHNICAL
FTSE 100	7513.7	2.0	145.3	↗
FTSE 250	19970.6	1.2	242.4	↗
FTSE AS	4115.0	1.8	73.0	↗
FTSE Small	5718.4	0.8	46.9	↗
CAC	5208.8	1.5	77.4	↗
DAX	12305.9	1.2	143.2	↗
Dow	22045.1	1.0	214.8	↗
S&P 500	2476.1	0.2	4.0	↗
Nasdaq	5907.8	0.0	-1.2	↗
Nikkei	19952.3	0.0	-7.5	↗

## Top 5 Gainers

COMPANY	%	COMPANY	%
NEXT	13.8	MICRO FOCUS INTE	-6.3
INTERTEK GROUP	9.1	SHIRE	-5.6
DIRECT LINE INSURAN	8.9	FRESNILLO	-3.8
ADMIRAL GROUP	6.3	BARRATT DEVELOP	-3.8
RBS GROUP	6.0	BAE SYSTEMS	-3.1

## Sovereign Default Risk

DEVELOPED	CDS	DEVELOPING	CDS
UK	16.4	Brazil	201.0
US	26.9	Russia	155.8
France	17.4	China	62.7
Germany	12.6	South Korea	58.1
Japan	25.2	South Africa	176.8

## Currencies

PRICE	LAST	%1W	CMDTY	LAST	%1W
USD/GBP	1.30	-0.75	OIL	52.3	-0.4
USD/EUR	1.18	0.06	GOLD	1257.6	-0.9
JPY/USD	110.82	-0.13	SILVER	16.3	-2.7
GBP/EUR	0.90	-0.79	COPPER	288.2	0.2
JPY/GBP	6.73	0.12	ALUMIN	1916.0	-1.1

## Commodities

## Fixed Income

GOVT BOND	%YIELD	% 1W	1 W
UK 10-Yr	1.2	-3.9	-0.05
US 10-Yr	2.3	-0.7	-0.02
French 10-Yr	0.7	-7.2	-0.06
German 10-Yr	0.5	-12.7	-0.07
Japanese 10-Yr	0.1	-14.5	-0.01

## UK Mortgage Rates

MORTGAGE BENCHMARK RATES	RATE %
Base Rate Tracker	2.3
2-yr Fixed Rate	1.5
3-yr Fixed Rate	1.7
5-yr Fixed Rate	2.0
Standard Variable	4.3
Nationwide Base Rate	2.25
Halifax Standard Variable	3.74

For any questions, as always, please ask!

If anybody wants to be added or removed from the distribution list, just send me an email.

**Please note:** Data used within the Personal Finance Compass is sourced from Bloomberg and is only valid for the publication date of this document.

**The value of your investments can go down as well as up and you may get back less than you originally invested.**

Lothar Mentel

