



ARBUTHNOT LATHAM
Bankers since 1833

Has QE failed?

And is helicopter
money the final
frontier?



QE in Context

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About Arbuthnot Latham

Established in 1833, Arbuthnot Latham has a strong track record of serving clients. Our objective is to help you achieve your goals through an unwavering focus on your life, your family, and your business. This is accomplished by building a strong and meaningful relationship based on trust, both personal and professional in nature.

With offices in London, Bristol, Exeter and Manchester, we offer a full range of private and commercial banking, wealth planning and investment management solutions.

About Arbuthnot Latham *Investment Management*

Arbuthnot Latham Investment Management (ALIM) has a long-standing reputation for undertaking in-depth analysis of the macroeconomic factors impacting key financial markets.

Responsible for over £1.2bn assets under discretionary management, we recognise that many of our clients are naturally curious and inclined to understand more about how we manage their investments. Research is the cornerstone of our investment processes and we fully subscribe to the philosophy of granting clients direct access not only to their Investment Manager, but also to the wider team, including those responsible for asset allocation and investment decisions. This ongoing dialogue helps us put you at the heart of what we do.

When it comes to managing your wealth, we take the time to understand your objectives and offer an investment solution that meets your needs. We offer a personalised service in which you will be assigned dedicated professionals, be that from Investment Management, Wealth Planning or Banking. Our approach is flexible, with a simple and transparent fee structure so that you can be confident that our interests are aligned.

Preface by the author



I have been an investment manager for over two decades, but still see myself as a student of the markets. When clients ask, “What keeps you motivated through the ups and downs on offer from fixed income, equity and foreign exchange?” my answer is simple: a genuine curiosity to understand the biggest questions facing investors at the moment. Today, the most significant financial questions revolve around the world of monetary policy following the \$24trn balance sheet expansion by the four major central banks since 2008.

I started my career as a professional investor just before Russia defaulted on their government debt – an event considered inconceivable at the time due to Russia’s membership of the nuclear arms club. From that moment on, government intervention appeared to play a bigger and bigger role in global markets. And it is for this reason we have turned our attention to investigating just that – extreme monetary policy intervention.

This paper has been written for those with a vested interest in the direction of the global economy, and those making financial decisions who need to take a view on the direction of interest rates – be that a household deciding between a fixed or variable rate mortgage, an investor agreeing how much fixed income to hold in their pension portfolio or a corporation designing its funding strategy for the coming years. Understanding the basics of monetary policy and how Quantitative Easing (QE) works can only help to better inform those decisions.

For those who have followed our research efforts over the past decade, you may notice a change in format. Rather than create a traditional long-form narrative, we have opted to present a series of ‘perspectives’. These might be assumptions, myths or hard facts. We then explore each subject in an attempt to demystify, make relevant and/or highlight what it means for investors.

In our last major thematic report, The New Silk Road (Arbuthnot Latham’s first policy paper), we took you on a journey down the ancient silk roads – surveying over 2,500 years of history – all leading us up to the initiative to link 4bn people across 62 countries with over \$2trn in investment. That work supported our investment into domestic Chinese A-shares. In our 2021 flagship report, we offer an insider’s perspective, a practitioner’s view on the \$24trn question facing investors today and we hope you find these perspectives of value.

Gregory Perdon
Co-Chief Investment Officer

Introduction:

From interest rates to mega-trends



Interest rates

When you think of Mesopotamia, you may think of the Gardens of Babylon, or the conquest of the kingdom by Alexander the Great. However, you may not consider it was also the birthplace of the single most important financial measure: the interest rate. As early as 4,000 BCE, interest rates existed for barley and silver. By 600 BCE, families were carrying out complicated business activities including lending large sums to governments and paying interest on deposits.¹ However, drawing parallels between interest rates in antiquity (where rates were between 20% and 25% in Sumer and Babylonia for agricultural goods) and the current environment may not be fair. Therefore, it may be prudent to examine more recent history.



Central banks

The Bank of England (BoE) was established in 1694, the Bank of Japan (BoJ) in 1882, America's Federal Reserve (Fed) in 1913 and the European Central Bank (ECB) was the last to be formed in 1998. These four institutions (in addition to the People's Bank of China or PBoC) determine the monetary policies of the global economy. These entities decide what it will cost for governments to borrow, for companies to issue debt, or for families to buy housing. For this reason, when major central banks cut or raise interest rates, the announcement dominates headlines.



From the conventional to the unconventional

The conventional tools that central banks have in their toolboxes include the setting of interest rates, deciding the amount of reserves that banks must set aside for a 'rainy day', and how they choose to communicate their decisions to the market – otherwise known as forward guidance. They also have access to unconventional tools such as engaging in large-scale asset purchase programmes, otherwise known as quantitative easing (QE). Over the past decade, the BoE, BoJ, Fed and ECB have been on a buying spree, collectively ballooning their balance sheets from a few trillion dollars to approximately \$24trn in assets which, to put into perspective, is equivalent to 47% of the entire US stock market.²



Success or failure

QE was a resounding success for stabilising markets after 2008's financial crisis, the biggest since the Great Depression (1929-1933), and we would argue the same during and post-COVID-19. However, significant questions remain. What have been the implications? Have there been excesses? And are we heading into bubble territory as a result of these continual rounds of extreme central bank intervention? We cannot ignore the steep rise in government indebtedness around the world, the volume of negative yielding debt (bonds which yield less than zero), and the weakening of quality in parts of the credit market. These factors lead us to ask: **has QE failed and is helicopter money the final frontier?**



Our research

To investigate these questions, we have created a series of 'perspectives'. Some of these statements are popularly held views, some are hard facts, and some are only assumptions. We follow up these statements with our thoughts and comments which are divided into three sub-sections: the facts, our perspective, and finally the small print (for those of you who enjoy the technical aspects). These perspectives are then grouped into three chapters: **Part I: Setting the Stage – The View from 10,000 Feet**, **Part II: Myths and Truths – Under the Bonnet**, and **Part III: Market Mega-Trends – Our Forecasts**.

Perspectives on quantitative easing:

In order to explore the implications of quantitative easing, we have created twelve 'perspectives'. Some of the statements are popularly held views, some are truths and some of them are speculative. The statements have been grouped into three chapters: the first, **Setting the Stage**, looks at the use of quantitative easing since 2008. The second part, **Myths and Truths**, explores some of the popularly held views on the effects of quantitative easing. The third part, **Market Mega-Trends**, explores the future use of quantitative easing and the longer-term impacts of its continued application.

Part I: Setting the Stage

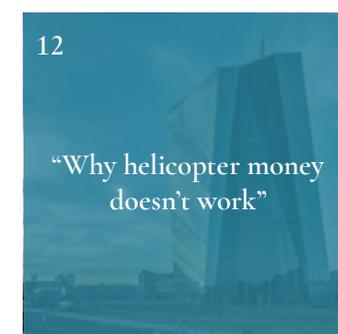
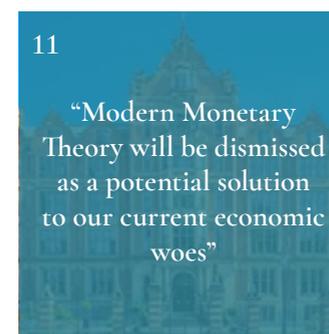
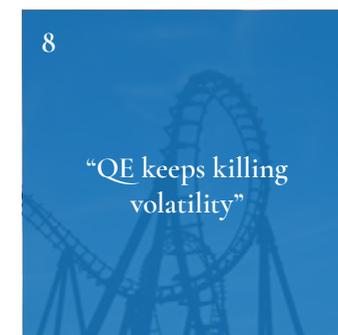
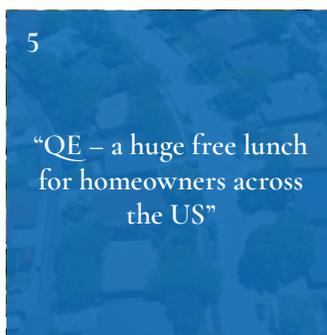
The View from 10,000 Feet

Part II: Myths and Truths

Under the Bonnet

Part III: Market Mega-Trends

Our Forecast



I Setting the Stage

Setting the Stage – *The View From 10,000 Feet*

An aerial night photograph of a city, likely New York City, showing a dense grid of lights and a large body of water in the distance. The sky is dark blue and purple, with some clouds visible in the lower left. The city lights are a mix of yellow, orange, and white, creating a vibrant contrast against the dark background.

Why was QE introduced? What is the real impact? How can it be measured and where does it sit within a historical context?



“QE was initially designed to stimulate aggressive growth”

The facts:

It all started in the early 2000s when mortgage credit was easily available and financial innovation fuelled the slicing, dicing and distribution of risky mortgages to global investors hunting for the Holy Grail – namely, higher returns with lower risks. Between 2002 and 2006, the value of US residential real estate rose from \$16trn (110% of GDP) to \$23trn (150% of GDP).³ Real estate prices increased rapidly compared to household income as everybody wanted to ‘get in on the action’. The issuance of NINJA (No Income, No Job, and No Assets) loans, where borrowers did not need to prove income, employment or asset base were on the rise.

When the crisis finally hit in 2008, US unemployment soared to 10.2%, GDP fell by 4.3%⁴ and the financial system was on the verge of collapse owing to the extreme interconnectedness of financial services firms. In response, the US government launched emergency lending programmes and sponsored hefty bailouts. Simultaneously, the Federal Reserve slashed interest rates from 5.25% to 0.25%, began large-scale asset purchase programmes (QE or bond-buying), and issued aggressive forward guidance designed to stabilise markets and calm investors.

Our perspective:

Many believe that the Fed was trying to jump-start GDP growth, but the initial QE programme was not designed with this objective in mind. Its primary mission was to avoid the next Great Depression. Very few outside the financial world appreciated the interconnectedness, and how risk had been transferred amongst the banks and insurers to such an extent that if one major institution was to go bankrupt, it risked dragging the entire economy with it. The Chairman of the Fed at the time, Ben Bernanke, in conjunction with the US Treasury, devised a plan that was simple: protect the banking system and deliver the strongest possible message to the market – that the US government would never accept a financial collapse under any circumstances.

The programme at the time was not about stimulating growth. Rather, it was about protecting the financial system from insolvency, and was implicitly aimed at saving jobs – because large employers rely on markets for funding. One way to achieve this outcome was to buy bonds (an asset that fluctuates in value) and exchange it for cash (an asset that does not fluctuate in value – \$1 is always worth \$1) which can be held in reserve on ‘instant access’. This ‘maturity transformation’ helped to create a massive amount of liquidity – exactly what investors seek the most in a crisis – thereby helping to stabilise markets, dampen volatility, reduce interest rates, and lessen investor panic.

The small print:

In addition, the Federal Reserve began paying IOER (interest on excess reserves) in an attempt to guarantee short-term rates (Fed funds) had a floor, incentivising banks to hold more cash ‘for a rainy day’, ensuring against a return to credit excesses (e.g. sub-prime NINJA loans), and finally, keeping money supply growth under control, thereby hoping to reduce the risk of an inflationary spike. We will cover in detail why excess reserves rose so aggressively in the section regarding bank lending.



“QE has injected
over \$7trn into the
US economy”

The facts:

During the different phases of US QE, after the Global Financial Crisis (GFC), the Fed's balance sheet ballooned by \$4trn. Since March 2020, the Fed's appetite for buying assets has again been significant: it has undertaken another significant bond-buying programme, which includes additional purchases of US Treasuries and Mortgage-Backed Securities (MBS) as well as purchases of corporate and municipal debt resulting in an additional \$3trn of balance sheet growth, approximately 14% of US GDP [Appendix A]. When the Fed acquires assets, the mechanism for payment is to credit the seller electronically via their 'reserve account' (an account held with the Fed themselves) without issuing new bank notes.

Our perspective:

Was \$7trn actually injected into the economy? Technically, the monetary base did increase dramatically, but all that 'money' did not necessarily go into the economy. It's a myth. For instance, after the QE programmes post-GFC, the rate of money supply growth did not keep pace with the dramatic spike in the monetary base. The base and the supply are not the same. The point is that by dramatically increasing the monetary base, the foundations of the financial markets improve, but that liquidity did not circulate as much as some would expect [Appendix B]. The conventional way for money supply to grow is for commercial and private banks to make new loans. Demand for credit is matched with a supply of loans, which increases the 'amount of money' in the real economy (as those fresh funds are credited to the borrowers' current accounts in preparation to spend/invest). The ratio at which it increases is called the multiplier. This is a function of the supply of attractive lending deals, not necessarily the size of the monetary base. However, there is still debate among the experts because, while credit growth was tepid post-GFC, money supply did indeed grow quickly, but to a lesser degree than the monetary base. Other special factors which contributed to the growth of money supply include an increased 'desire for safety and liquidity' from investors.

The small print:

To oversimplify, M1 money supply (considered a broad measure) equals current accounts plus notes and coins in circulation (but not reserves). M2 money supply, considered an even broader measure, equals M1 plus timed deposits (but not reserves). In 2017, M1 and the monetary base were almost equal. Usually, the monetary base is much smaller than M1 money supply, but this aberration was due to excess bank reserves (reserves in excess of what is normally kept aside), which were sitting 'idle' on the Fed's balance sheet. Prior to the massive expansion of the monetary base in recent times, excess bank reserves were only a few billion dollars, as banks used to fully leverage their reserves. Those days are over.

“A bank with a more deteriorated balance sheet expands its lending less aggressively when additional base money is supplied from the central bank.” – Etsuro Shioji

“Central banks control the amount of lending”



The facts:

You can lead a horse to water, but you can't make it drink. The conventional policy tools at the disposal of central banks are setting interest rates (cost of borrowing), fixing reserve ratios (how much banks need to keep on the side) and giving forward guidance (how and what central bankers communicate). So yes, to some degree, central banks (and/or regulatory authorities) control the amount of lending via setting capital ratios (liability side) and liquidity requirements (asset side).

Is anything else available to them? Yes, unconventional tools such as large-scale asset purchases, otherwise known as QE. Typically, central banks can only set short-term interest rates (known as policy rates), leaving the 'market' to decide longer-term rates. Is there a way for them to influence this? Well of course, by buying longer-dated bonds, which, holding everything else constant, will drive the price up and the yield down. This is one way the central banks can influence the shape of the yield curve and push it downwards. Under QE1 (the first of several QE programmes launched in the US), the Fed purchased mortgage-backed securities worth \$1.25trn, federal agency debt worth \$175bn, and long-term US government debt worth \$300bn. The active acquisition of bonds of various maturities brought down yields. Since many loans and financial products are priced off these yields/rates, the cost of borrowing for certain households, corporations and governments was lowered.

Our perspective:

Bond-buying helps to reduce interest rates (the cost of borrowing), but it has a less direct influence on the volume of borrowing. We must remain mindful that it is the commercial banks, private banks and private credit markets which 'decide' whether to lend to fuel credit growth, and credit growth is often a key driver of economic activity. Owing to the perceived weak supply of attractive lending opportunities from borrowers after the GFC, a cautious appetite to lend by banks and increased capital requirements imposed by regulators (especially in Europe), a disincentive to lend was created. After the GFC, bank lending declined, not only in absolute terms, but also as a percentage of bank assets in the US (see "the small print" below). But the story is slightly different this time around seen upon the backdrop of the COVID-19 pandemic. Money supply surged in the US during 2020. This is because the money created by the Fed was not only being absorbed as excess reserves but was also channelled to consumers through paycheck protection programs, stimulus cheques and to local governments in the form of grants. Moreover, commercial banks were much better capitalised at the start of pandemic due to the banking reforms compared to 2008/09, and households had also deleveraged significantly over the last decade.

The small print:

According to Rice University's Baker Institute, prior to the GFC, loans averaged approximately 60% of total assets, but the percentage fell from 59.1% in June 2008 to 51.7% by September 2011. Lending began to recover in 2015, reaching 54.7% of bank assets by the end of 2017. The decline in loans in 2009 was almost fully offset by an increase in excess reserves. Typically, higher excess reserve holdings are associated with lower bank loans, contradicting the notion that these assets are unrelated.



“QE was first introduced in 2008”

The facts:

Whilst QE remains a contentious policy tool, it is widely believed that this unconventional policy measure was first adopted during the Global Financial Crisis of 2008.

Our perspective:

This is a myth. The term “quantitative easing” was first used to describe the actions taken by the Bank of Japan in 2001 to defend against the spectre of deflation. This was at a time when Japan was emerging from one of the biggest real estate bubbles in history (a subject matter we wrote extensively about in our thematic research paper on Abenomics).

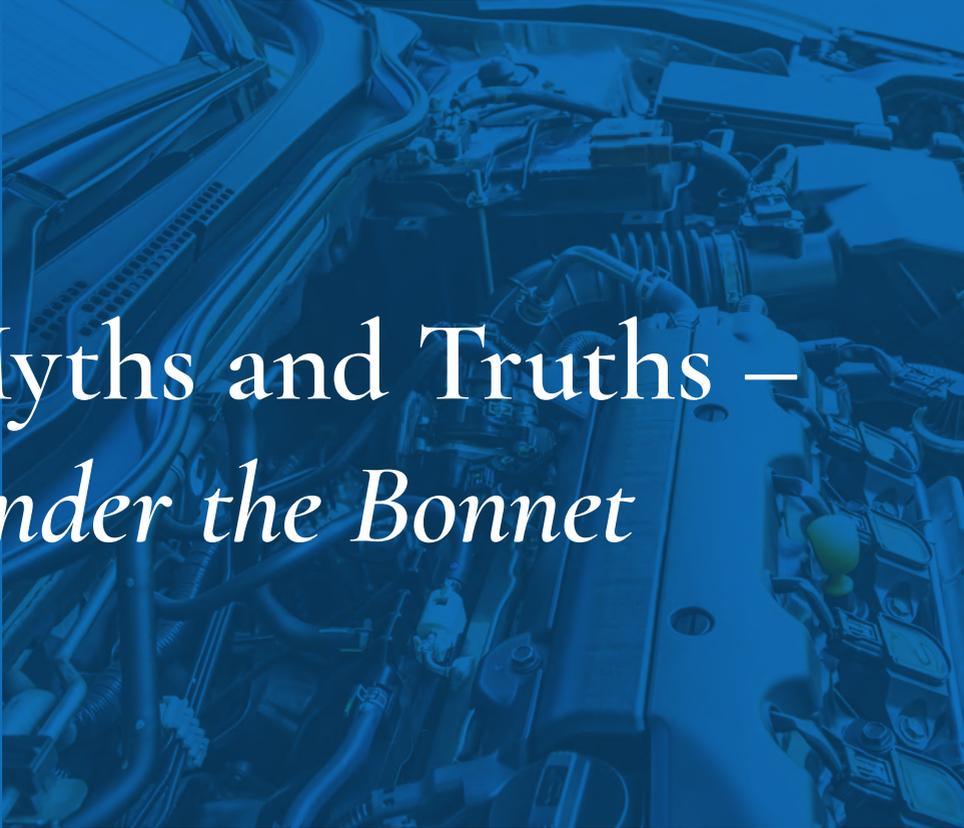
Few investors know that the Fed had embarked on a similar programme in 1932 at the height of the Great Depression. The programme entailed large-scale purchases of medium and long-term government bonds over a four-month period. However, it was unable to deliver its desired results because the programme ended abruptly⁵ and was not accompanied by aggressive forward guidance. Forward guidance is a powerful tool that can serve as a form of promise in relation to future interest rates or policy direction upon which investors can rely, allowing them in turn to make investment decisions with a greater sense of certainty.

The small print:

The open market purchases (what we would call QE today) launched during the Great Depression significantly reduced medium and long-term Treasury yields by as much as 114 and 42 basis points respectively, but in 1932 the money supply declined by 33% from its 1929 peak after a series of bank failures.

Friedman and Schwartz argue in their seminal book “A Monetary History of the United States” that had the Fed continued the open market purchase programme, the Great Depression would have ended significantly earlier than it did.

II Myths and Truths



Myths and Truths – *Under the Bonnet*

Central banks and their policies influence almost all of our financial decisions. Interest rates influence everything from a government's fiscal policy to a corporation's return on equity, to the cost of university education to home mortgages. But who has benefitted the most? Have the conditions for new debt bubbles been created? In this section we go 'under the bonnet' in an attempt to dispel some of the myths surrounding quantitative easing.



“QE – a huge free lunch for homeowners across the US”

The facts:

As part of the Fed's effort to respond to the GFC and its aftermath, the US central bank bought US Treasuries and US MBS to push rates down, initially to save the system and prevent high unemployment, but then with the aim of inducing more lending and investment.

When US mortgage rates tumble, homeowners tend to refinance their mortgages to obtain a cheaper rate. This is what happened in the second quarter of 2011, when refinancing activity began to increase as 30-year mortgage rates fell. This refinancing activity continued its upward trend in 2012 and accelerated toward mid-year reflecting the fall in mortgage rates, shortly before the Fed initiated QE3 in the third quarter of 2012. However, as 30-year mortgage rates increased during late 2013, mortgage-refinancing activity declined markedly.

This time as well, to respond to turbulent market conditions from the coronavirus pandemic, the Fed restarted QE-style purchases of MBS in March 2020. The Fed's actions sparked a steady decline in mortgage rates throughout the pandemic, with the 30-year bond yielding 2.85% as of February 2021. The measures adopted by the Fed were able to encourage more homebuyers to refinance their mortgages, thus allowing them to lower their monthly payments. The second derivative of these mortgage bond purchases impacted the entire US housing ecosystem from housing starts to new home sales to construction to the labour market.

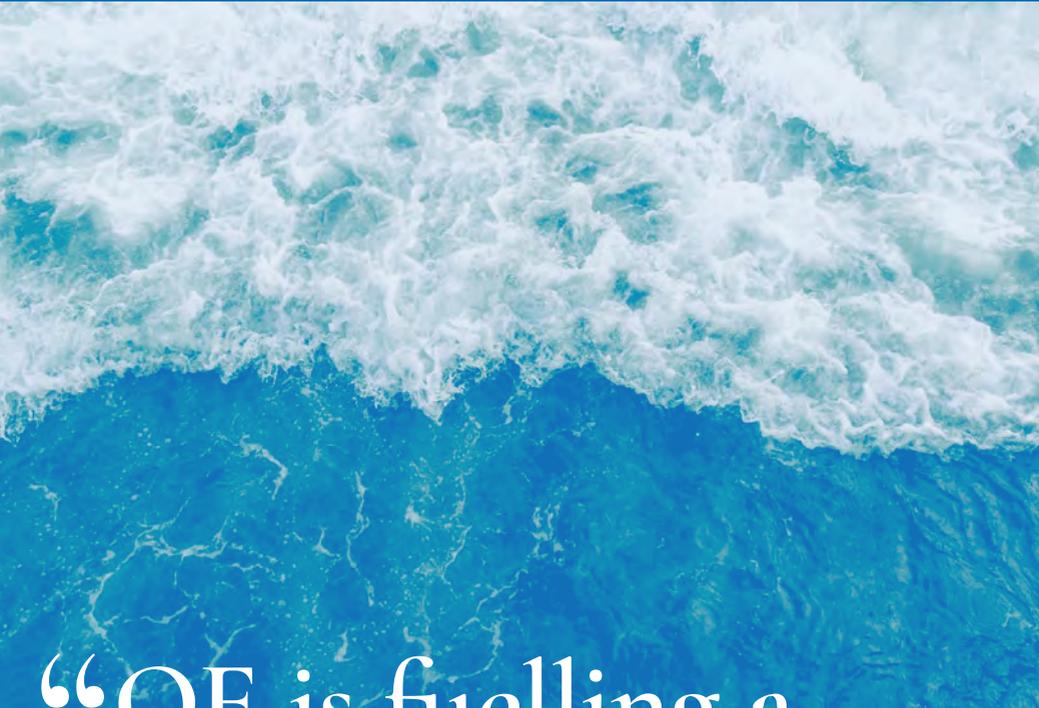
Our perspective:

The bottom line is when monthly mortgage payments decline (due to an adjustable rate or a refinancing), disposable income goes up, giving homeowners more available cash at the end of the month (holding salary constant). We agree QE offered a 'free lunch' for homeowners but would caveat this by asking whether or not households took advantage of this.

The average US consumer has continued to reduce indebtedness since the GFC, while increasing their rate of savings, perhaps in fear of the next 'big crisis'. In fact, personal savings rates skyrocketed to a record of 32.2% in April 2020, up from 12.7% in March, and in 2021 sit at around 15% after hovering between 6-8% over the last 10 years.⁶ This begs the question: does this extra money actually flow into the economy?

The small print:

One research paper concluded that shortly after the announcement of the Fed's QE1 (mortgage-backed securities purchases) during the GFC, the yields on MBS with a 30-year maturity declined on average by 1.07%.⁷



“QE is fuelling a government debt bubble”

The facts:

Developed market interest rates have been in steady decline over the past four decades, having peaked in the US back in 1981. Economists will point to a shift in demographics, an inability to absorb excess savings and low inflation as factors which have contributed to this trend.

In the immediate aftermath of the GFC, interest rates reached rock-bottom levels which ultimately made it cheaper for governments to aggressively issue debt. For perspective, the sovereign bond market expanded from \$33trn in 2007 to almost \$78trn in 2020. The big offenders? The US, Japan, France and the UK all now maintain debt-to-GDP ratios of at least 100% [Appendix C].

Our perspective:

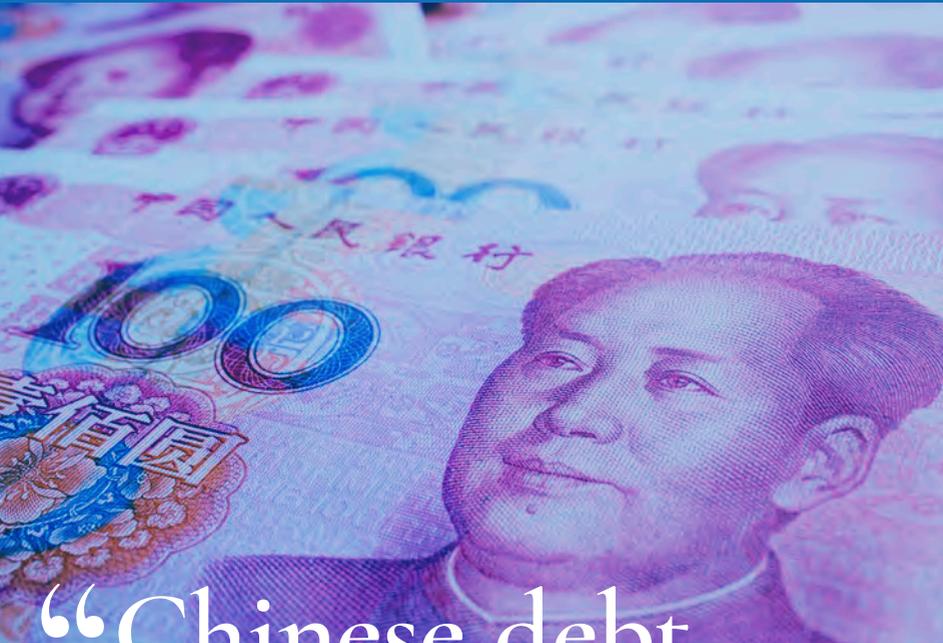
We agree the headline numbers are remarkable and the current economic scenario has further reshaped the discussion around what acceptable public debt levels are. However, the purpose of a counter-cyclical buffer is to support the market when it is most needed (such as during the COVID-19 health crisis). Focusing too much on the top-line ratios seems somewhat short-sighted.

The bottom line is that the burden of debt (the cost to service or make interest payments) remains manageable owing to the low interest rate environment which has especially benefitted countries like Italy (special thanks to the ECB). Secondly, much of this new ‘extra’ debt is held by central banks after being acquired during QE operations. These quasi-government entities would be considered particularly friendly bondholders at a minimum were a sovereign debt crisis to present itself. Thirdly, interest rates don’t look likely to rise materially in the short-term, leaving aside the medium-term risks. Finally, much of this debt has been raised by countries such as the US, UK and Japan – nations in control of their own currencies. Optically of course it appears poor, but the reality is that it is most likely manageable.

The small print:

A big debate is underway regarding the future of QE and whether QE infinity (open-ended QE seemingly lasting forever) will eventually lead to debt monetisation. Debt monetisation refers to the direct purchase of government bonds by its central bank (this is unlike how the Fed has purchased bonds in the open market). But it is not as cut and dried as it seems. An effective way to determine whether a government is monetising their debt is to investigate 1) whether these purchases are directly financing government spending, 2) the mechanism of purchase, 3) whether inflation is running above their target, and 4) if the government is facing challenges financing their debt.

This has opened the conversation around whether governments should launch ‘QE for the people’, an initiative which would involve crediting the current accounts of taxpayers with ‘free money’ to stimulate spending. One of the reasons this is beginning to attract attention is because ‘QE for the people’ (or ‘helicopter money’) is designed to have the opposite effect to ‘traditional QE’. QE lowered interest rates and increased bond prices, in theory benefitting primarily asset owners. Helicopter money would benefit all citizens regardless of the family’s balance sheet, large or small. We investigate this further in Part III of this report.



“Chinese debt –
the next global
financial crisis
waiting to happen”

The facts:

According to McKinsey, in 2007 the combined global debt-to-GDP ratio stood at 207%, but by 2020 it had risen to 331%.⁸ China's domestic debt has grown at a pace of 20% per year since 2008 and totals 335% of GDP as at the end of June 2020.

China enacted fiscal stimulus to the tune of ¥4trn to support critical industries after the GFC which spurred borrowing by local and state-owned firms. An extended period of low interest rates after 2008 then enabled corporations to also go on a borrowing spree. Between 2007 and 2017, Chinese companies added \$15trn in debt, making the country's corporate debt ratio one of the highest in the world.

Our perspective:

Since the 1980's, interest rates have been on the decline and industrial scale QE has only helped to intensify this trend. Rock bottom policy rates and strong forward guidance have contributed to rising debt ratios by reducing the cost of borrowing and increasing investor confidence. Analysts, investors and journalists always on the lookout for the next big crisis have focused their attention on one of the epicentres of debt issuance, namely China. But we question whether a crisis will indeed ensue.

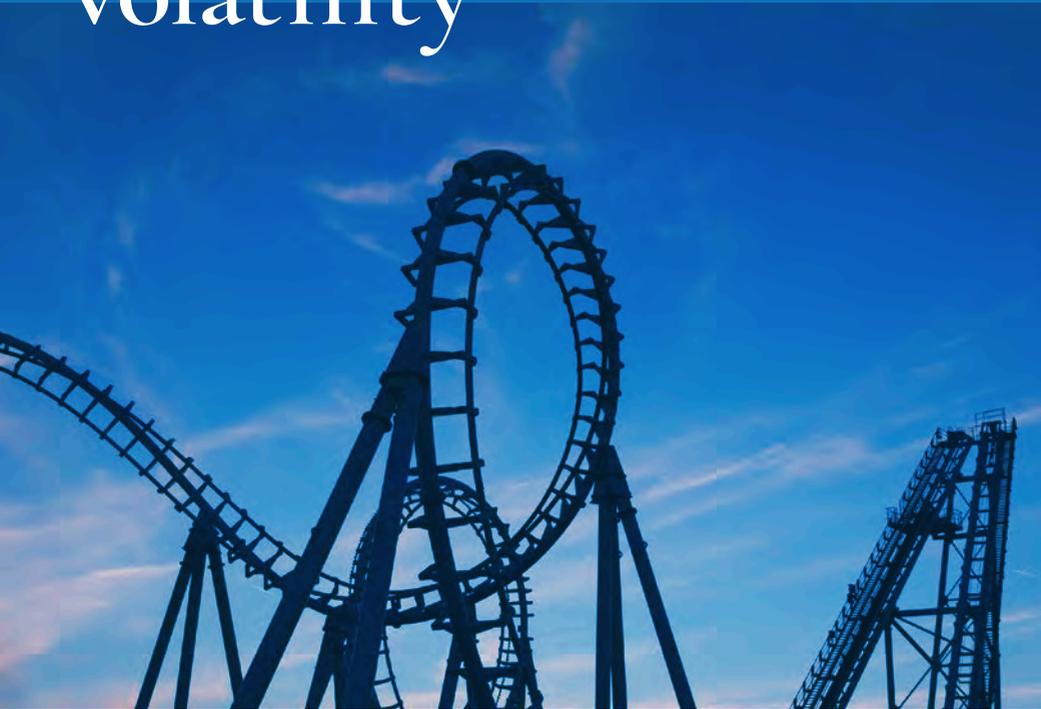
Whilst the market is correct to focus on China's asset side of the balance sheet (such as tracking non-performing loans), foreign investors tend to ignore the other side of the balance sheet (namely the liability side and how it is funded). Low-cost funding, high savings rates and strict capital controls have served to shelter China's banks from a credit crisis even if the credit quality is questionable. Investors have also tended to overlook reforms orchestrated by the Chinese government. For instance, over the last decade or so there have been exchange rate reforms, focus on liberalising interest rates and a deleveraging campaign launched in the face of shadow banking (off-balance sheet) problems in 2016.

Chinese officials have acknowledged that they do not wish to turn on the credit taps and are seeking a more cautious approach. For example, some measures include tighter financing conditions for property firms and allowing some state-backed firms to default in an attempt to showcase a market-based approach. In addition, the announcement in November 2020 by Vice Premier, Liu He of a “zero tolerance” policy towards financial fraud and violations in the bond market is indicative of the commitment to maintain transparency.

The small print:

Since 2016, China has also increased efforts to reduce its debt burden through a deleveraging campaign. State firms have also been ordered to reduce their debt levels and increase efficiency. The Ministry of Finance is also trying to regulate risks through local government financing vehicles (LGFVs) by pointing out certain regional governments for illegal fundraising. Around 12.2 trillion yuan (US\$1.7 trillion) in government debt, which included a significant portion of LGFV debt, was converted to public local government bonds between 2015 and 2018 after a directive was sent across by the State Council.

“QE keeps killing volatility”



The facts:

When an asset price moves aggressively up or down, volatility is generated. The theory goes that speculative investments move to a greater degree than conservative investments. That's the trade-off: safe assets tend to provide low returns with moderate volatility. Conversely, investing in highly volatile assets can offer a potentially higher return – but the ride can be a touch more stressful.

However, with each round of QE, volatility tends to get 'flattened'. How do we evidence this? Each time stress hits the market, central banks like the ECB come out and give forward guidance with statements such as, “We will do whatever it takes to support price stability,” and volatility decreases. This reduction of uncertainty helps markets regain confidence. This encourages investors to be less risk averse, which regrettably can increase moral hazard, a situation in which one party (an investor) gets involved in a risky event knowing that it is protected, because the other party (a central bank) will seemingly cover the cost.

Our perspective:

Yes, it appears that we are operating in a slightly higher volatility regime since the health crisis erupted in March 2020. At the peak, the VIX index (considered the most recognised indicator measuring equity volatility based on S&P500 option pricing) spiked to over 80 [Appendix D] and has now settled on the lower bound of 20-40. However, between 2012 and 2019, the VIX index spent most of this period between the range of 10 and 20, which begged the question: “Why did so many talking heads on TV claim that we were operating in such volatile markets over that seven year period?” Were these commentators confusing political uncertainty with asset price volatility?

The small print:

In the period after the GFC not only was volatility low, but many traders thought it was cheap during the 2017-2019 period. One of the reasons for this was the amount of capital searching for yield in an already low-yield world. This cash often found its way into structured products, which in essence sell volatility (often in equities) in order to generate a higher yield. This is not unlike selling insurance against the market to earn a premium, which is a profitable strategy if the market does not decline significantly.

“We can’t know exactly how much of the US recovery can be attributed to monetary policy, since we can only conjecture what might have happened if the Fed had not taken the steps it did”

– Ben Bernanke, former Chair of the Federal Reserve



The facts:

There are increasingly loud calls that ‘QE didn’t work’. Much of the support for this statement tends to focus on the argument that QE has fuelled inequality as many asset owners have witnessed an increase in the value of their holdings due to a decrease in yields. This narrative tends to drive the point that QE did not work for the everyday citizen.

Our perspective:

We will never know what would have happened if the Fed had not bailed out AIG in 2008, the biggest insurer in the world, or supported the rescue of Bear Stearns by JPMorgan. We believe that QE was extremely effective at the time and we are not alone; in one paper,⁹ the authors estimate that without the policy responses of late 2008 and early 2009, the peak-to-trough decline in real gross domestic product (GDP) would have been close to 14%, the economy would have contracted for more than three years (more than twice as long as it did), and unemployment would have peaked at just under 16% rather than 10%.

But what is clear is that QE only works if it is big enough to create ‘shock and awe’. In reality, policymakers should not be responding to all the financial incidents that happen in the market as asset prices fluctuate all the time – which ultimately is the basis for price discovery. Perhaps central banks should step in proactively during a crisis, whenever there is a possibility of liquidity drying up in the financial system, or in case of a significant shock. Whilst making such a distinction in the fog of war is difficult, policymakers should act very infrequently, but with real size when required. In fact, the Troubled Asset Relief Program (TARP) – a \$700bn initiative created and run by the US Treasury during the GFC – yielded a significant positive return and was a key to the Fed’s success.¹⁰

As per an evaluation done by the Fed of the effectiveness of the corporate credit facilities (primary market corporate credit facilities and secondary market corporate credit facilities that were first announced on 23rd March 2020), it estimates that one third of the improvement in credit spreads happened on the same day the Fed announced the facilities. Another third of the improvement happened between 23rd March and 9th April 2020. They also observed an improvement in primary market issuance and pricing, with Investment Grade (IG) issuance until the end of June 2020 reaching double the amount issued by the same point in the previous year. They also added that, had the access to debt markets not improved, the default of companies in affected industries would have put more than 10 million employees at risk.

The small print:

The challenge we face arguing for or against the above is that we will never know, nor can we prove, what would have happened if QE post-GFC did not take place. Nor can we state with confidence what would have happened if QE was not intensified post COVID-19. As a result, much of the debate around this topic falls into the realm of subjectivity, even if the argument is well structured and eloquently delivered with credible provenance.

Market Mega-Trends – *Our Forecast*



We now have a better appreciation for the impact that QE has had on markets. On the heels of further rounds of bond-buying during the pandemic, we reflect on what else remains in the toolbox should central banks wish to embark on the final frontier.

“The era of negative policy rates is finished”

– Gregory Perdon (Co-CIO, Arbuthnot Latham)



The facts:

In response to the GFC and the European sovereign debt crisis, some major central banks embarked on the path of adopting a Negative Interest Rate Policy (NIRP) – e.g. Denmark (2012), the Eurozone (2014), Sweden/Switzerland (2015) and Japan (2016). The idea behind implementing negative interest rates was to encourage households and businesses to spend or invest rather than keep their capital on deposit and to ease financial conditions.

Our perspective:

To oversimplify, banks generate much of their revenue from taking in shorter-term deposits and lending them out for higher interest rates over a longer period. This profit recognises the credit risk (not being paid back) and is referred to as Net Interest Income (NII).

Our principal criticisms of negative interest rates are twofold. Firstly, a negative rate policy throws a spanner in the works, because generally banks do not pass on the negative rates to all their customers, thereby reducing the bank's net interest income. This then reduces profitability and can negatively impact risk appetite and credit creation. Secondly, negative rates creates a 'signalling' problem in that it distorts the yield curve and communicates to the market that there is less confidence in the future of the economy, growth, and inflation expectations. This can negatively impact the risk appetite of corporations to invest for the future and curtail banks' desire to expand credit.

We believe that when we look back at QE and fiscal intervention, these two factors will be judged by history as the most important which helped to suppress volatility and gave economies the breathing space to recover. But we would equally argue that negative rates are now past their sell-by date, even though some academics argue that they continue to ease economic conditions.

The small print:

A 'normal' yield curve is upward sloping as the markets expect higher future interest rates. On the contrary, a downward sloping yield curve indicates expectations of lower interest rates in the future thereby compressing banks' income. Steeper curves positively impact banks' profitability levels as banks tend to borrow short and lend long. However, with the introduction of negative interest rates, yield curves were flattened¹¹ and lending margins squeezed – a clear negative for bank profitability.

“Modern Monetary Theory will be dismissed as a potential solution to our current economic woes”



The facts:

Modern Monetary Theory (MMT) has become a major discussion topic amongst economists and politicians. Very recently, the idea was championed by Stephanie Kelton, the former economic adviser to Bernie Sanders. Nevertheless, it has been criticised equally by prominent figures like Fed Chairman, Jerome Powell, Bill Gates, Larry Summers and former International Monetary Fund (IMF) Chief economist, Olivier Blanchard.

MMT proposes that spending by monetary sovereign countries does not need to be constrained by their revenues (i.e. they do not need to worry about taxes or borrowing when deciding about their spending). At the same time, MMT advocates controlling inflation by keeping interest rates near zero and through the application of various regulations and taxes when required (which appears a bit vague).

The basis for MMT is that countries with their own currency are different from individuals and businesses in that governments can never run out of money. The principal reason such a framework has become popular among politicians is that they believe MMT can be a ‘Magical Money Tree’ that can guarantee full employment and help in paying for costly public programmes such as universal healthcare and universal basic income for which ‘budgeted’ government funds are usually insufficient.

Our perspective:

It is simply not possible for governments to keep creating new money to pay for their liabilities and avoid defaults. It is worth noting that prices will probably rise if government spends money in excess of the public’s demand. And, price rises will go on to the extent to which the real stock of money declines to the level of actual demand for money. In addition, we know from past experience of emerging markets and the experience of Germany post WW1 that this approach can lead to hyperinflation and political instability.

Additionally, the Fed would have to commit to a zero-interest rate policy permanently, which can have drastic consequences for its mandate for price stability and full employment. Furthermore, MMT suggests that the Treasury should cease to issue government bonds – which would affect the whole international system, as US Treasuries are currently used as the ‘go-to risk-free asset’ and the benchmark to which trillions of financial instruments are linked.

Nevertheless, we can agree with the MMT proponents on the point that governments need to stop worrying about deficits running high in the short-term to cover COVID-19 costs. In the words of Larry Summers, “the policy debate needs to be about the composition of fiscal policy, not the level of the deficit or surplus.”¹² This way governments can tackle investment needs in physical infrastructure and their country’s human capital, which might make the deficits temporarily worse, but would increase the demand in the economy and increase economic capacity in the longer run. Secondly, both MMT supporters and mainstream economists will agree on the point that debt in a foreign currency can pose a fiscal risk to governments, as it is out of the control of the indebted government to create foreign currency.

The small print:

A 2019 survey of leading economists showed a unanimous rejection of MMT’s assertions that 1) “Countries that borrow in their own currency should not worry about government deficits because they can always create money to finance their debt,” and 2) “Countries that borrow in their own currency can finance as much real government spending as they want by creating money”. (Chicago Booth 2019).¹³



“Why helicopter money doesn’t work”

The facts:

The term 'helicopter money' was first coined in 1969 by Milton Friedman. In one of his papers, he tried to illustrate the implications of changes in the stock of base money through a parable of dropping money from a helicopter. Whilst Friedman never intended that his suggestion be used as a serious policy proposal, the idea started to gain traction as an economic policy in the late 1990s when economists began to consider it as an instrument to tackle deflation in Japan. Since then, the support for the policy has only increased due to the perception that QE has potentially accelerated inequality in society and due to the abandoning of government budget constraints on account of the COVID-19 crisis.

Our perspective:

In classic QE, central banks buy bonds and exchange them for cash in the form of credits to the reserve accounts. This is not money printing, it's merely maturity transformation! In 'heli-money', a further step is taken; namely, the bonds which are acquired during these large-scale asset purchase programmes are then 'written-off', thereby putting the central bank in a position where it automatically suffers a financial loss. Not only would this be financially detrimental but it would immediately impact the institution's credibility and its ability to use forward guidance, given the potential that the institution would be operating under the spectre of negative equity. But what makes it even riskier is its irreversible nature (unlike QE which can be unwound by selling those bonds back to the market).

Even if heli-money, considered the final frontier, is implemented as a 'weapon of last resort' by central banks, it might affect other necessary pillars that govern a healthy economy. For instance, inflation could rise too quickly and the currency could fall in value. Furthermore, the temptation for governments to turn heli-money drops into an annual event (almost like a 'feel-good' carnival conveniently arranged in the run up to elections) could be too great to resist.

Finally, the legality of heli-money is questionable and would certainly place the independence of the monetary authority in question. Many market participants see heli-money as the final frontier and think it will indeed launch, but I posit that it will not work, because in order to promote financial stability and a well-functioning economy, we need to ensure central banks remain strong, solvent and independent – this then renders full-scale heli-money a failure before it begins.

The small print:

An additional reason why heli-money would not be advisable, at least in the case of the US, is due to the fact that the Fed pays interest on excess reserves. The Fed might find itself in a scenario where it 'gives' away equity in the form of hand-outs and then ends up paying interest on that equity in the future, because some of that 'give away' ends up back in the form of excess reserves.

ING surveyed 12,000 people across 12 countries in Europe as part of its International Survey programme, asking how they would use the funds if helicopter money were to be actioned. Interestingly, only around a quarter of the respondents said they would be willing to spend the money whilst, most people felt they would save or invest it. A smaller share of people said that they would pay down their debts with it. This suggests that helicopter money might not be effective in stimulating the economy.¹⁴

Conclusion:

My objective in this paper was to 'lift the veil' on QE and to write candidly about what it is and how it works, but also hopefully to debunk some of the myths circulating at the moment, and finally to offer some forecasts on how we see QE evolving.

Establishing that QE was not launched on the heels of the GFC to fuel growth but rather served as a policy tool amongst others to help prevent the next Great Depression and serve as the ultimate counter-cyclical buffer was an important starting point.

It is true there is no free lunch in life but there are trade-offs, and we view QE as a trade-off. On one side, society has benefitted from a prevention of an upwards shock in unemployment along with a backstopping of the financial system, but on the other side, QE has opened the door to the prospect of a government bond bubble along with the side-effect of potentially having fuelled an increase in wealth inequality (as the portfolio values of asset holders have appreciated significantly). But we see this trade-off on balance as worth accepting in the name of financial stability.

We equally accept that we will never know what would have happened if large-scale asset purchase programmes were not launched by central banks around the world following the GFC, European Sovereign Debt Crisis or the COVID-19 pandemic, nor can we prove that a bigger problem is not being created down the road. But assuming these policies were not actioned, we believe that credit would not have flowed – a critical ingredient for the proper functioning of global markets (and business confidence/aggregate demand).

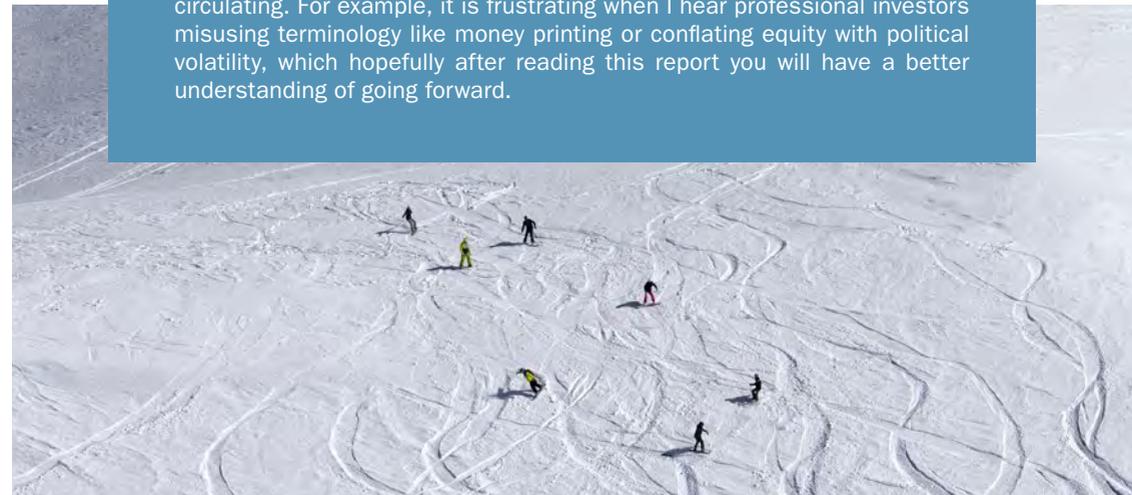
Looking forward, we think the age of negative interest rate policies will begin to fade as we reflate, and yield curves move to normalise (assisted by vaccine roll-outs, an increase in mobility and unleashing of savings supported by a pent-up demand). We believe the call to embrace Modern Monetary Theory will intensify but will eventually retreat as the market becomes better informed about the weak foundations upon which the theory is built. Finally, we accept that heli-money may indeed happen in some economies but will not be successful as it puts into question the entire basis upon which financial markets' function is based (especially the power of forward guidance – arguably central bankers' most powerful tool). Our conclusion is that there is nothing wrong with conventional monetary policies and unconventional QE, especially when buttressed by government fiscal stimulus – the key will be around ensuring that the fiscal aid is well-targeted and that the central bankers know when to take the punch bowl away.

Rationale behind the authorship:

The major driving force behind our last thematic report, The New Silk Road, was to support our allocation to China A-shares in almost all client portfolios in November 2018, an allocation which represented a higher-risk off-benchmark position and added value in retrospect. The publication of the report was also designed to set out our views on the geopolitical implications of the Belt and Road Initiative (BRI) and China's re-rise to power, as well as advance our policy recommendations.

In this thematic report investigating quantitative easing, the motivation was to ensure our Investment Committee understood the implication of large-scale asset purchase programmes within a historical context. The benefit of our work was clear; it relieved us from the requirement to investigate bond-buying whilst it was happening in real time because we had already done the work, thereby giving us the confidence to better navigate the markets during the COVID-19 pandemic.

An additional motivation behind this research paper is to offer some clarity on the subject matter to our clients as I fear that there is misinformation circulating. For example, it is frustrating when I hear professional investors misusing terminology like money printing or conflating equity with political volatility, which hopefully after reading this report you will have a better understanding of going forward.



Acknowledgments:

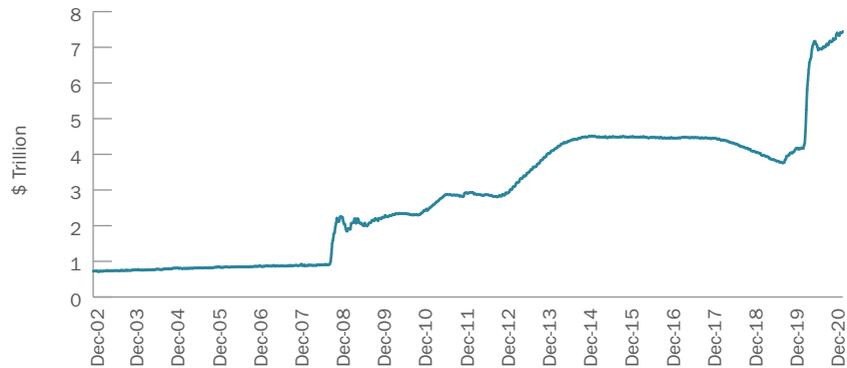
The author of this report wishes to acknowledge the valuable contributions (in alphabetical order) made by Asim Kaul, Abhijeet Pai, Aditya Sharma and Bhav Thanki to this research initiative.

Appendices:

Appendix A

Federal Reserve balance sheet

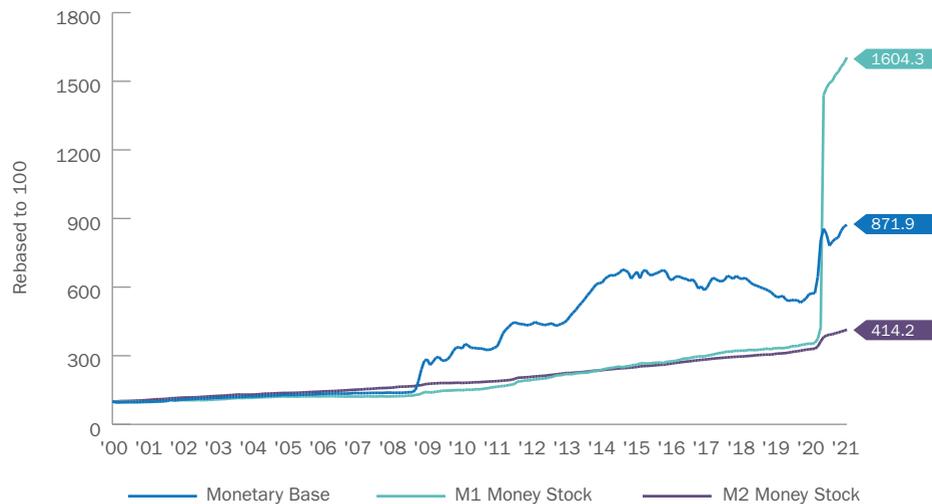
Source: The Federal Reserve; FactSet



Appendix B

Money stock vs monetary base growth

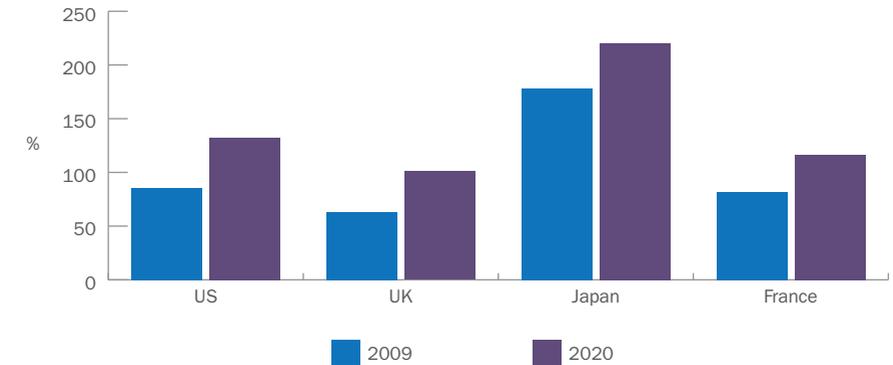
Source: The Federal Reserve; FactSet



Appendix C

US, Japan, France and UK – Debt to GDP (2009 vs 2020)

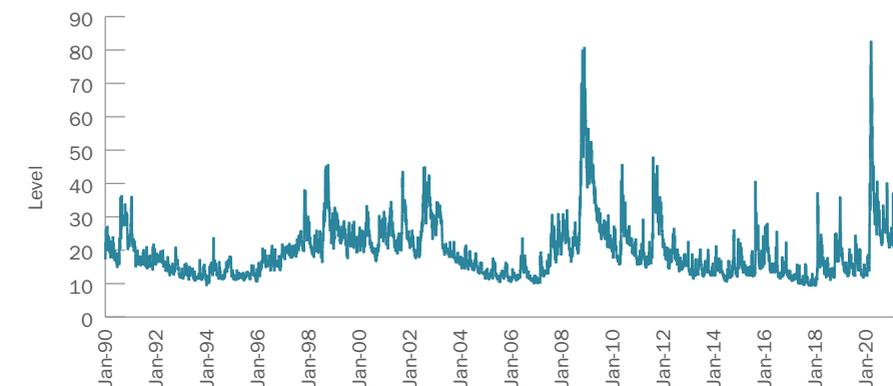
Source: Department of the Treasury (Bureau of the Fiscal Service); Ministry of Finance; National Institute of Statistics and Economic Studies; Office for Budget Responsibility; FactSet



Appendix D

Cboe Volatility Index

Source: Cboe; FactSet



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