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OCTOBER 2019

THOUGHT LEADERSHIP:

THE UNEQUAL STATE OF AMERICA

INTRODUCTION

In last month's article, we discussed whether the years in the lead-up to the Great Depression provided a precedent for what we are witnessing in markets today. In both cases, the US Federal Reserve (the Fed) was trying to tighten monetary policy after years of accommodation. The longstanding easy credit conditions led to very high debt levels and inflated asset prices, which made a tightening agenda difficult to implement. Income and wealth inequality were at extremes. Just before Black Tuesday in 1929, it is estimated that close to 25% of total household wealth was held by only 0.1% of the wealthiest households.

Back in 2017, the three wealthiest men – Bill Gates, Jeff Bezos and Warren Buffett - were more wealthy than the bottom half of the entire American population combined.[1] This level of wealth and income inequality in the United States has now reached levels last seen in the years just before the Great Depression.

Inequality is expected to exist in any economy - it is a function of differences that exist in skills, abilities, experiences, opportunities and, in many cases, luck. Inequality in an economic sense can be thought of in two main measures: income inequality and wealth inequality. Income inequality represents the distribution of the amount of money people are paid while wealth inequality represents the distribution of the stock of wealth across the population.

Structural factors, such as government policy, can affect the level of inequality (for better or worse). Then, there are the slower moving but dramatic changes, such as globalisation and technological innovation. The impacts of these factors have been contributing to a worsening inequality landscape for the last several decades.

We consider that monetary policy has been another important dynamic in the worsening inequality landscape, particularly since the Global Financial Crisis (GFC). The monetary policy response by central banks to the GFC has widely been considered to have been successful – it helped support a recovery for the broader global economy. However, the ultra-low interest rate environment that has persisted since the GFC has tended to line the pockets of the wealthy, while the rest has seen little improvement.

[1] Refer to *Billionaire Bonanza – The Forbes 400 and the Rest of Us*, Institute for Policy Studies, November 2017

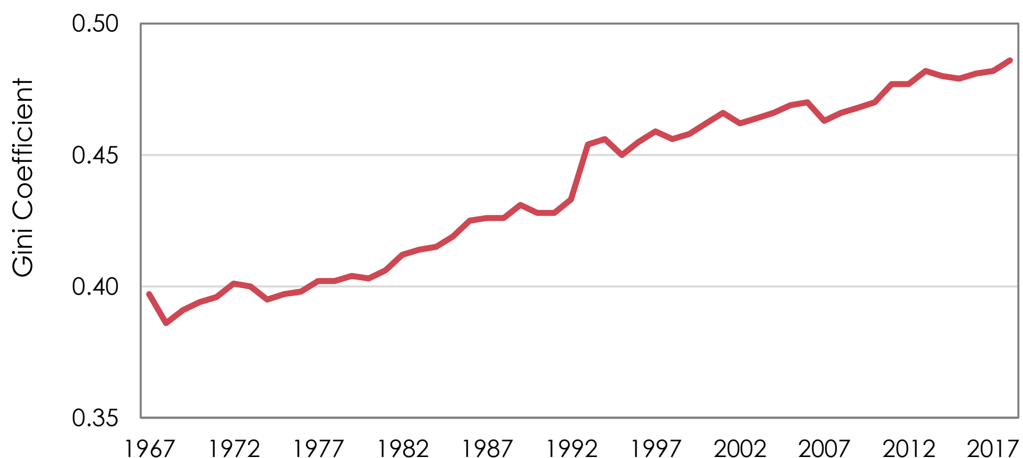
Importantly, it has also put a significant wedge in the already present intergenerational divide, with Baby Boomers seeing a windfall while Millennials are being left further and further behind.

The Gini coefficient is the most commonly used measure of economic inequality, and the increase in the coefficient for income inequality in the United States over the past 50 years is presented in Chart 1 below. A score of zero represents perfect equality within a country, while a score of one represents perfect inequality. It is worth noting that the US is considered the most inequitable developed market country, however the UK, New Zealand, Japan and Australia are not far behind.

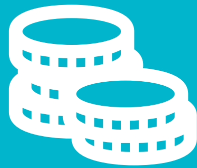
In this month's article, we discuss the worsening income and wealth inequality in the United States. We acknowledge that this is a broad issue with a variety of contributing factors, however our focus is predominantly on the impact of monetary policy on inequality. The discussion is focused on the United States, though these trends are occurring in many other developed economies.

Shining a light on the rising inequality in the US is not just important from the perspective of addressing a critical social issue, but also because it can have important investment implications. Deteriorating inequality can lead to geopolitical instability, as a greater proportion of a population is likely to fiercely demand a change from the status quo – the election of President Trump and the result of the Brexit referendum are two key examples. Furthermore, examining the level of inequality provides a clearer picture of how the all-important consumer is holding up, and not just the ultra-wealthy consumer. With more than two thirds of US GDP reliant on the US consumer, rising inequality will ultimately have implications for economic growth and investment markets.

Chart 1: Gini Coefficient for Household Income in the US, 1967 - 2018



Source: US Census Bureau, Whitehelm Advisers



THE TRANSMISSION OF MONETARY POLICY

Before we analyse the ways in which monetary policy has exacerbated inequality, let us take a step back and first consider the ways in which central banks are able to transmit monetary policy through to the economy.

Central banks use changes in monetary policy to achieve their stated objectives, which typically include measures of price stability (stable inflation), full employment and economic prosperity of their nations. The central bank's cash rate has been the main tool that is used to influence these objectives. There are several channels through which changes to the cash rate can affect inflation and broader economic activity. The following are those that the RBA cites as the most important in determining the appropriate settings for monetary policy[2]:

- savings and investment channel: a reduction in the cash rate can provide households and businesses an incentive to consume and invest, rather than to save, and vice versa;
- cash flow channel: a lower cash rate reduces the amount of interest households and businesses have to pay on their debt, but also lowers the amount of interest they receive on deposits. As such, changes to the cash rate affects levels of disposable income, and thus spending decisions;
- wealth channel: a lower cash rate stimulates a demand for assets such as equities and housing, which then causes the prices of these assets to increase. The wealth of households and businesses who own such assets increases. The wealth effect takes hold, which leads households and businesses to spend at least some share of any increase to their wealth;
- balance sheet channel: lower interest rates can increase the borrowing capacity of households and businesses. An extension of the wealth channel, when asset prices increase, particularly house prices, households will have more equity in their assets, which then means they will be able to use this additional equity to borrow more; and

[2] Refer to *The Transmission of Monetary Policy: How Does it Work?* Reserve Bank of Australia, September 2017

- exchange rate channel: in an open economy, a change to the cash rate has flow-on effects for the exchange rate, which influences inflation and economic activity.

As is likely apparent from the list above, the extent to which a consumer feels the effects of changes to monetary policy is dependent on several factors, particularly their financial situation. Whether the person considers themselves to be a saver or a borrower and the size and composition of their assets and liabilities are factors that determine the impact that changes to the cash rate will have. The way in which a consumer is paid, through labour earnings and/or profit share arrangements for example, is also critically important.

Monetary Policy Following the GFC

Following the onset of the crisis, global central banks stepped in very quickly to try to support economies through the worst financial market crisis since the Great Depression. In very short order, developed market central banks slashed their cash rates to historic lows, per Chart 2 below.

The Fed, the Bank of England and the European Central Bank (ECB) also implemented extensive quantitative easing programs following the onset of the recession. The Fed injected a massive amount of liquidity into markets, primarily through its lending facilities. Between September 2008 and January 2009, the monetary base doubled, as per Chart 3 below.

The Fed had two main goals in mind when implementing these extreme monetary policy measures. The first was to make borrowing easier for both corporations and consumers so that companies would borrow more to invest in new productive capacity and consumers would buy the new goods and services being produced, both of which can be achieved with the cheaper credit on offer. The second was to support asset prices (including stocks, bonds and real estate and other assets) that would boost confidence and trigger a wealth effect. Boosting confidence was particularly important as consumers make up almost 70% of US GDP. As a result of a market rally, households would see their net wealth rise, and would 'feel wealthier', encouraging them to borrow more money to buy more goods and services.

Chart 2: Developed Market Cash Rates, 2000 - 2019

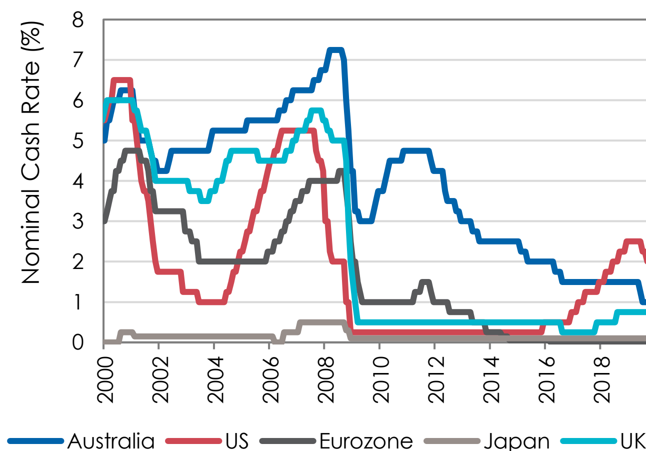
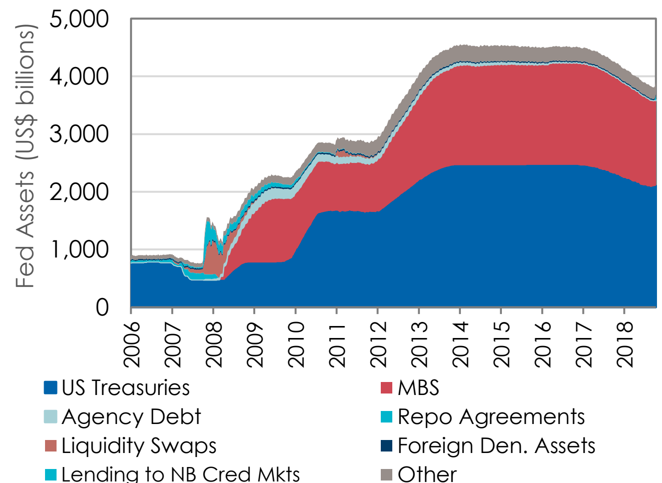


Chart 3: Breakdown of Fed Assets, 2006 - 2019

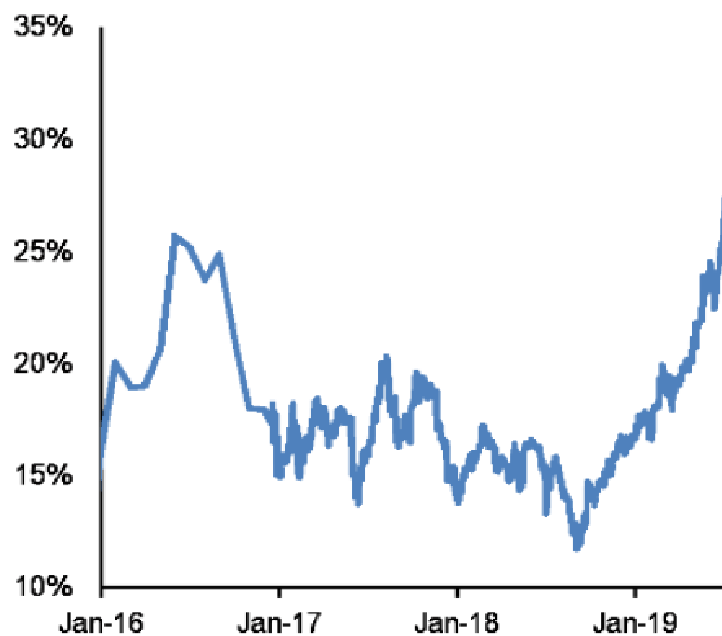


Source: Bloomberg, US Federal Reserve, Whitehelm Advisers

Was the Fed successful in achieving these two goals? The Fed's mandate is '*to promote effectively the goals of maximum employment, stable prices, and moderate long-term interest rates.*'[3] It does appear that the zero interest rate policy and three rounds of QE implemented by the Fed have helped achieve the first two of the three stated goals of the Fed's mandate. Unemployment has returned to pre-GFC levels, while inflation has remained low and asset prices have not fallen.

Quantitative easing has had the most dramatic impact on the asset classes where central banks have purchased assets directly; namely sovereign bonds. This is evident through the US$15 trillion worth of government bonds that are now negative yielding, equivalent to approximately a third of all global debt. This illustrates the extent that QE has compressed yields – investors are effectively paying governments to fund them. The rise in negative yielding debt as a proportion of total debt is shown in Chart 4 below.

Chart 4: Proportion of Negative Yielding Debt of Total Global Debt, 2016 - 2019



Source: JP Morgan, Bloomberg, ABC

[3] Refer to Federal Reserve Act, Section 2A: Monetary Policy Objectives

Chart 5 shows the performance of debt markets in the six worst months of the crisis, as well as the five years following the crisis. Across the major developed market countries, fixed interest markets recovered very strongly, in large part because of the ultra-low interest rate environment and the QE implemented in the years following the crisis.

Share markets were much more severely affected during the peak of the crisis, as shown in Chart 6 below. The ultra-low interest rate environment played a part in the recovery of share markets in the years following the crisis, which has evolved into a decade-long bull market. A significant contributor to the run-up in share markets has been the impact that cheap credit has had on corporate decision-making. The accommodative monetary policies have created ideal conditions for large volumes of share buybacks as some large companies have used either cash or debt to buy back their own shares, which typically causes share prices to increase.

It is important to note that the increase in share prices in the years following the crisis is was not just driven by monetary policy, but also an earnings recovery that naturally follows the depth of a recession. As the economy started showing signs of recovery, sentiment improved, which led to better outcomes for employment, investment and production. Company profits improved, which helped drive share prices higher.

Quantifying and understanding these market impacts is critical in understanding why we consider monetary policy to have contributed to a deterioration in inequality over the past decade. In the following sections, we discuss the impacts on wealth inequality, followed by the impacts of income inequality.

Chart 5: Performance of Barclay Aggregate Indices, During and Following GFC

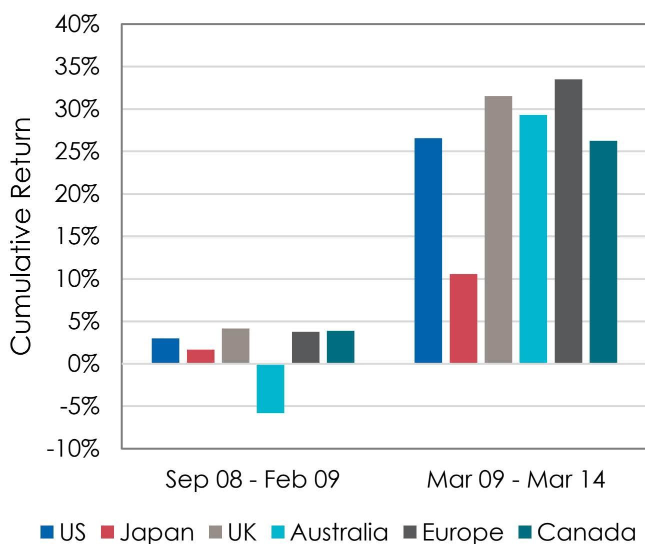
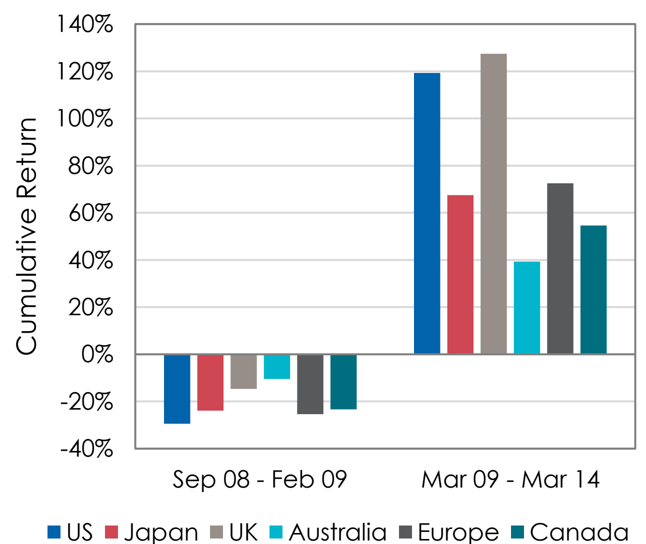
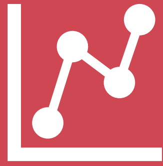


Chart 6: Performance of Domestic Share Markets, During and Following GFC



Source: Bloomberg, Whitehelm Advisers

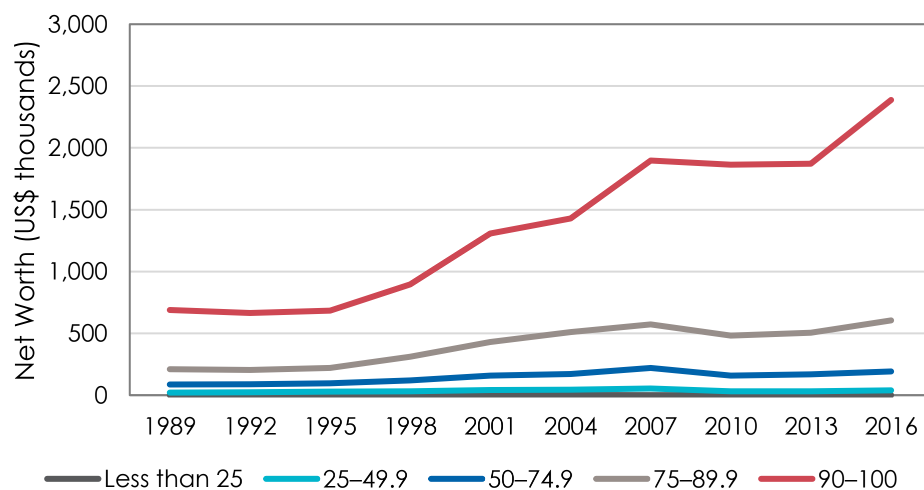


THE IMPACT ON WEALTH INEQUALITY

What has this monetary policy response (and the coinciding result for asset markets) meant for inequality? Chart 7 below shows the rise in family net wealth in the United States from 1989 to 2016. Wealth for families in the bottom half of the American families has not returned to pre-GFC levels. Only the top 10% wealthiest American families have seen a notable increase in wealth since the GFC, despite the economic recovery that has been celebrated.

The run-up in asset markets since the GFC has predominantly exacerbated wealth inequality due to the differing compositions of household assets, and the interest rate sensitivity of these assets. Those that are exposed to financial markets, either directly or indirectly (through pooled investment funds, retirement accounts and other managed assets) are the obvious beneficiaries of the decade-long asset price rally. Those that have very little or no exposure to financial markets have not benefited from this aspect of monetary policy.

Chart 7: Median Family Net Worth in the United States by Percentiles, 1989 - 2016



Source: US Federal Reserve – Survey of Consumer Finances, Whitehelm Advisers

The disparities in the composition of household balance sheets between the wealthy and the poor have paved the way for very divergent outcomes for these two segments of society. The wealthiest segment of society typically has a diversified portfolio of stocks, bonds and real estate, while the middle class often owns homes, but not as much stocks and bonds, and the poorest segment of society typically do not own their own homes, nor are they invested in bond and share markets.

Chart 8 on the left below shows the proportion of American families that are either directly or indirectly exposed to global share markets (predominantly indirectly through their 401k accounts). As of 2016, approximately 52% of American families have some exposure to global share markets, although this exposure is concentrated to US markets.

That said, it is important to dive deeper than the headline figure to understand which families are exposed to share markets. Chart 9 shows the proportion of American families that directly and indirectly own shares based on income percentiles. Only 10% of families at the 10th percentile of income are invested in the share market, while 95% of families at the 95th percentile are invested in the share market.

Chart 8: Proportion of US Families with Direct & Indirect Stock Ownership, 1989 – 2016

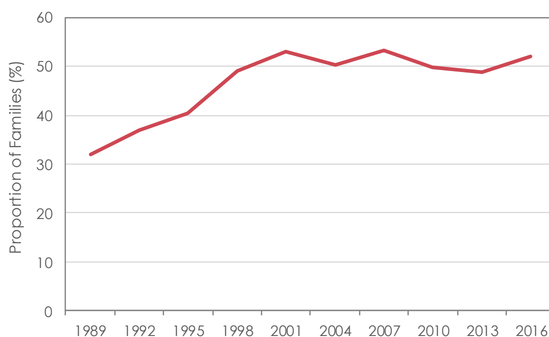
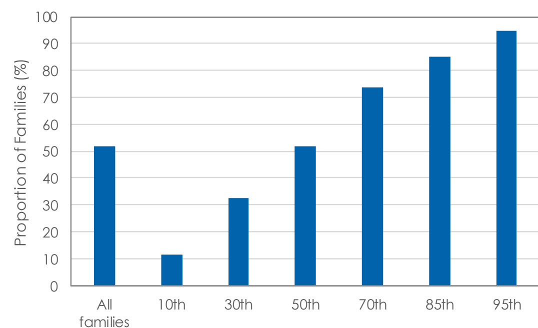


Chart 9: Proportion of US Families with Direct & Indirect Stock Ownership, by Income Percentile, as of 2016

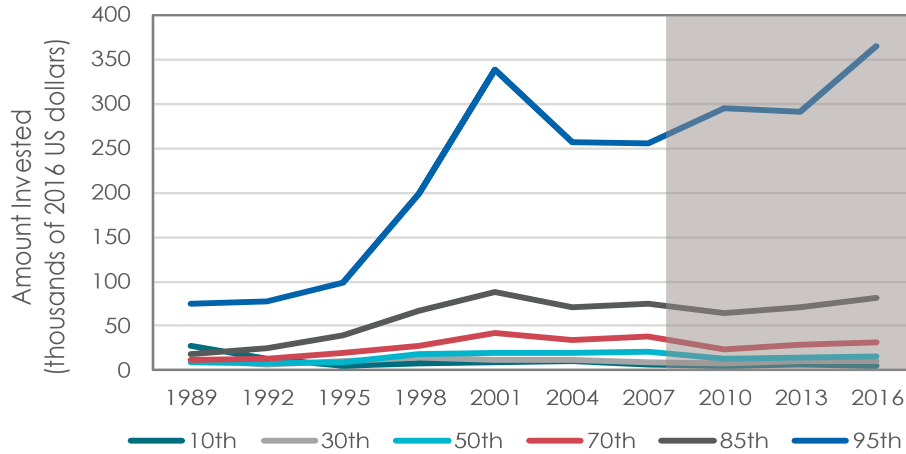


Source: US Federal Reserve – Survey of Consumer Finances, Whitehelm Advisers

Chart 10 overleaf shows the dollar amount that Americans have invested in the share market by income percentile from 1989 to 2016, with the post-GFC period denoted by the grey shading. The bottom half of Americans in terms of income level had $15,000 or less invested in the share market as of 2016. Seventy percent of families had $32,000 or less invested in the share market as of 2016. It is in the top 15% of the income distribution where the disparity in the amounts invested is the greatest. The family that sits at the 95th percentile for income has $365,000 invested in the share market, nine times the amount the average family does. Chart 10 also shows the increase in the amount invested for those in the top few percent of the income distribution since 1989.

Those at the top of the wealth distribution are not just invested in shares, rather they tend to have relatively diversified portfolios, including bonds, real estate and cash. As already discussed, bond holders have also benefited from the lower interest rates given that bond prices are inversely related to interest rates.

Chart 10: Amount Invested in Share Market by Income Percentile, 1989 - 2016



Source: US Federal Reserve – Survey of Consumer Finances, Whitehelm Advisers

The impact that low interest rates have had on house prices paints a slightly murkier picture in terms of the impact on wealth inequality. For many in the middle class, their houses are their biggest assets, while for the poorest segment of society, they are unlikely to own the homes that they live in. Housing prices decreased fairly dramatically following the onset of the GFC, but the accommodative monetary policy environment has supported a full rebound in average housing prices since then. However, the rebound in housing prices has largely been driven by price increases in coastal cities, rather than a consistent rebound across the country.

The rebound in housing prices supports many more Americans than the share market rally does, given that approximately two thirds of Americans own their own home. If the Fed's policies had supported housing prices more than they supported share market prices, then inequality may have actually narrowed over the past 10 years. The two charts below show this has not been the case. The S&P 500 has increased by well over 300% since its post-GFC low, while house prices have only increased by 45% (but certainly not by that much for everyone).

Chart 11: S&P 500 Index, 2000 - 2019

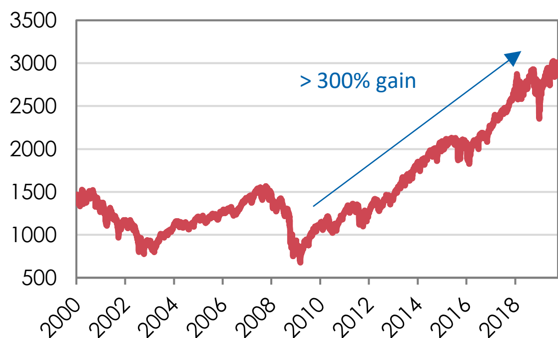
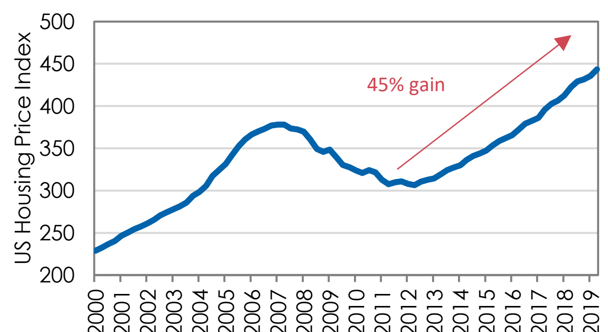


Chart 12: US All Transactions House Price Index, 2000 - 2019



Source: Bloomberg, Federal Reserve Bank of St. Louis, Whitehelm Advise

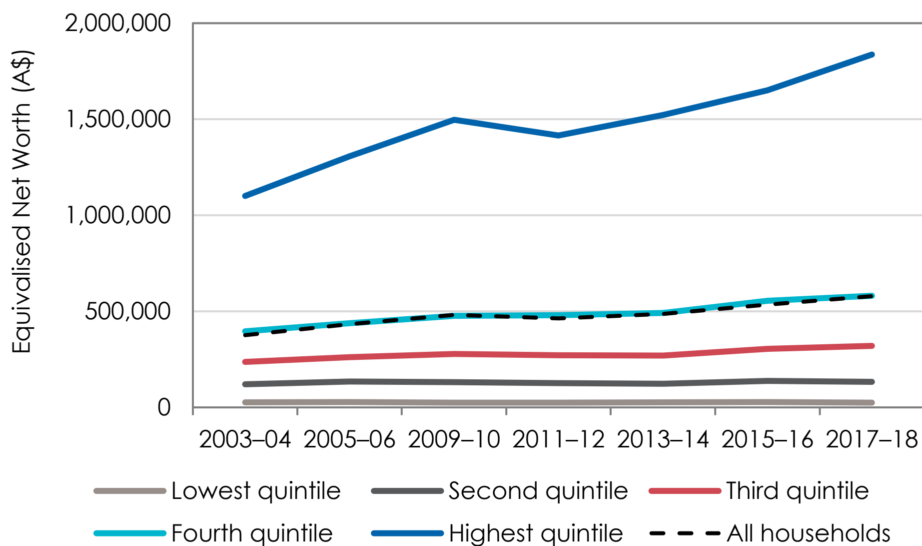
It is worth noting that monetary policy has not unilaterally worsened wealth inequality. The ultra-low interest rate environment has negatively impacted savers compared to borrowers. To the extent that savers are typically wealthier than borrowers, those in the lower deciles of wealth benefit more than those in the highest deciles of wealth as a result of the ultra-low interest rate environment. Many central banks have used this in their defence of their monetary policy response, arguing that lower interest rates help people pay off their mortgages (to the extent that the mortgages are variable rate) and allow companies to keep hiring people in lower paying jobs.

Why Australia is Different

It is worth noting that this argument cannot be made to the same extent for the wealth inequality spectrum in Australia. This is because compulsory superannuation contributions, implemented in 1997, effectively make every working Australian an asset owner. While the composition of superannuation investments can vary significantly depending on how an individual has opted to invest their superannuation contributions (self-managed, retail, industry funds invested with a variety of risk tolerances), the benefits of asset price increases as a result of monetary policy is less isolated than the picture painted above.

Nevertheless, wealth inequality has still deteriorated in Australia over the past decade, per Chart 13 below.

Chart 13: Equivalised Net Worth in Australia, 2003 - 2018



Source: Australian Bureau of Statistics, Whitehelm Advisers

Note: Equivalised wealth is a measure of household wealth that takes account of the differences in a household's size and composition. Household wealth is adjusted by the application of an equivalence scale to facilitate comparisons between households of differing size and composition.

IMPACT ON INCOME INEQUALITY

Like wealth inequality, income inequality has also deteriorated over the course of the past decade. Chart 14 shows the change in pre-tax incomes by percentiles for the United States from 1989 to 2016. While incomes have moved upward for all percentiles since the GFC, the increase has been by far the most dramatic for the 10% of families with the highest incomes.

A different way of presenting income inequality is shown in Chart 15 below. The proportion of the total national income for the bottom 50% of Americans (in terms of income level) has been falling, and as of 2014 (most recent data available), was just 12.5%. Meanwhile, the proportion of total national income for the top 1% of Americans has been rising and as of 2014, was 20%.

Chart 14: Median Pre-Tax Family Income in the United States, 1989 - 2016

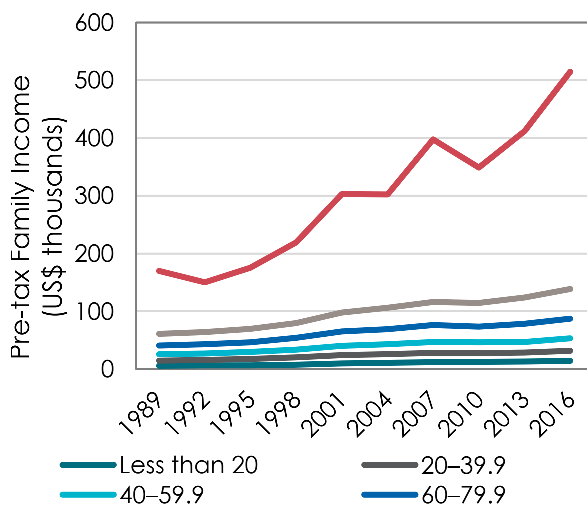
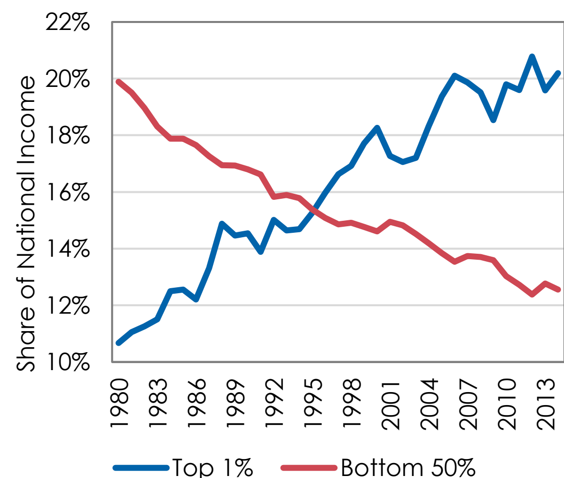


Chart 15: US Share of National Income, 1980 - 2014



Source: US Federal Reserve – Survey of Consumer Finances, World Inequality Database, Whitehelm Advisers.

Income inequality has been impacted because of the way people are paid (the composition of incomes) and how interest rates affect low-paying versus high-paying jobs.

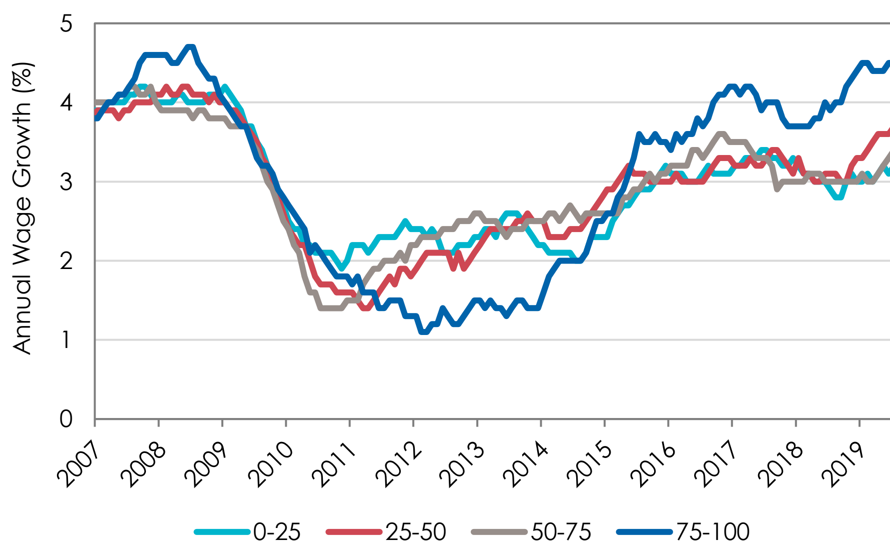
Earnings for the lowest paid workers typically vary the most over a business cycle and are the most affected by an accommodative monetary policy response following a financial crisis. Lower interest rates can entice companies to either keep low-paid employees in work, or to hire additional low-paid staff. Higher paid workers are typically less affected in terms of their employment status by a monetary policy response. The fact that lower-paid workers are likely to be supported by low interest rates more than higher-paid workers means that, in isolation, the Fed's response following the crisis went some way in improving equality.

However, the heterogeneity in the composition of incomes between the wealthy and the poor means that they have different levels of exposure to changes in interest rates. The poorest households tend to rely on transfer income (such as unemployment benefits) while households in the middle class tend to rely on labour earnings. The wealthiest segment typically relies on a combination of labour earnings as well as business and capital income.

While the Fed was successful at propping up asset prices following the GFC, it has been less successful at maintaining inflation at its stated target of 2%. Despite the trillions of dollars that the Fed has pumped into the economy since the crisis, the Fed's preferred measure of inflation has only been at or higher than the 2% target on a handful of occasions. The lack of inflationary pressures led to low wage growth for many years following the GFC. Since the crisis, annual wage growth has averaged just 2.7%.

While wage growth has picked up over the past few years, it is important to not get lost in averages. In the years following the GFC, the highest annual wage growth was experienced among the lowest wage earners, and the lowest by the highest wage earners. However, in the past few years, wage growth for those with the highest wages has been far higher than for everyone else, as shown in Chart 16 below.

Chart 16: Annual Wage Growth by Wage Percentiles, 2007 - 2019



Source: Federal Reserve Bank of Atlanta, Whitehelm Advisers

So, the Fed has not been overly successful in causing a meaningful increase in labour earnings over the past decade, especially for those with lower-paid jobs. For the poor and the middle class, this means that they have seen very little change to their household disposable income. However, for the wealthy, they have not only seen higher wage increases, but they have also benefited from the impact that low interest rates had on business and capital profits, and in turn their income. An example of this is remuneration schemes for the executives of publicly listed companies being dependent on the company's share price.

Impact on Intergenerational Inequality

The impact that monetary policy has had on inequality over the past decade is more nuanced than just saying that the rich are getting richer and the poor even poorer. One of the more perverse side effects of the ultra-low interest rate environment has been the worsening of the intergenerational divide.

Many central banks have been keen to point out that the monetary policy response following the GFC disproportionately helped support the incomes of young people – given that it led to lower unemployment and wage growth. Central banks have also argued that younger households are more likely to be borrowers than savers, meaning that they benefit from the ultra-low interest rate environment through lower debt servicing payments. Along the same vein, older households are more likely to be savers than borrowers, meaning that they are not as well-compensated in a low interest rate environment.

The 'Baby Boomer' generation, typically referred to as those older than 65, have been seeing their wealth increase in large part because they were able to afford houses in their mid-20s and have seen the value of their assets increase dramatically over the past forty years. The family home has quickly become their key source of wealth, which has allowed the Baby Boomers' to stand by and watch their wealth multiply.

For today's 'Generation Y' or 'Millenials' (those born between 1980 and the mid-1990s), home ownership is much more difficult. House prices are now at a much higher multiple to income than they were even ten years ago in many developed market countries (Australia being a particularly notable example). Wage growth and net worth, particularly for Generation Y, have not kept up with the rate of increase for house prices, to the point that younger people are having a tough time getting into the property market at all. The low interest rates have even made it difficult for first-time homebuyers to save for a deposit. These factors act as a significant barrier to home ownership that Baby Boomers did not face.

INVESTMENT IMPLICATIONS & CONCLUSION

Ultimately, we need to define why a deteriorating economic inequality landscape is important from an investment perspective.

Geopolitical Risks

Inequality plays an important role in geopolitical instability. In many respects, Donald Trump was elected as President of the United States on the back of worsening inequality. The sentiment of many Americans, particularly those that are in the lower and middle classes, has been that the 'American dream' – the idea that if you work hard then your standard of living will improve – has become unattainable. Throughout his campaign, President Trump spent a great deal of time addressing those most affected by worsening income inequality. His calls for change in the political landscape, as well as changes to the country's industrial sector, appealed to so many Americans who have seen little to no change in their living standards over the past several decades. President Trump's '*Make America Great Again*' campaign slogan tapped into the desire to make the American dream attainable again. We consider that inequality was one of the primary drivers of Trump's successful campaign for presidency. The outcome of the Brexit referendum can be argued along the same lines.

As such, rising levels of inequality can lead to somewhat unexpected outcomes, such as social unrest, changes in government and a rise in populism. The ramifications for political instability should be evident based on the state of global politics following the last American election and the Brexit referendum result.

The Importance of the Consumer

The consumer has ultimately been one of the key sources of strength in the recovery from the GFC, given that consumer spending accounts for nearly 70% of American economic growth. For the past decade, the American consumer has shouldered the country's economic recovery. The consumer has been resilient, and tax cuts and fiscal policy from the Trump administration have helped further support consumer spending. However, over the past several months, cracks have started to appear, most notably in terms of lacklustre consumer confidence indicators. The fading impact of the tax cuts and the drawn-out trade conflict are causing consumers to more closely consider their financial situation. Furthermore, consumer spending over the past decade has largely been fuelled by debt (i.e. ultra-low interest rates), and at some point, consumers will reach their maximum appetite for leverage.

The level of inequality in developed market economies, particularly the US, begs the question as to how resilient the consumer will be in the face of the next economic downturn. An increasingly large proportion of the population will not be in the financial position to prop up the economy.

Essentially, this leads to riskier economies as it puts more onus on a smaller proportion of the population to do the heavy lifting in times of economic weakness. When the top 1% of the population controls so much of the wealth, and in turn, spending power, there is only so much that this small sliver of the population will be able to do to support the economy. Bringing it back to the example in the introduction, Jeff Bezos, Bill Gates and Warren Buffet collectively are unlikely to be able to move the needle in terms of consumption (and therefore economic growth). There are only so many burgers that these three men will want to consume. The deteriorating economic inequality landscape will likely lead to a less resilient economy in the face of the next downturn, whenever that may be.

CONCLUSION

Central banks did not set out to worsen income and wealth inequality when they embarked on their monetary policy initiatives a decade ago. At the height of the crisis, central banks prioritised financial market stability in the short term over the long-term implications for individual income and wealth levels.

In many respects, the combination of conventional and unconventional monetary policy since the GFC has been considered successful, especially if measured on headline metrics such as unemployment and inflation. However, we cannot be ignorant about the fact that the outcomes for individuals are incredibly divergent. The biggest beneficiaries from a wealth perspective have been the wealthiest, which has meant that inequality measured on this basis has worsened since the onset of the crisis. It has also had a significant impact on intergenerational inequality.

There is no quick, painless fix to any of these issues. In the introduction, we noted that this level of inequality has not been seen since the Great Depression. Inequality reduced in the decade during and after the Great Depression, however this was in part because the levels of mass unemployment and hardship led to destructive outcomes for almost everyone.

Persistent and worsening inequality can lead to higher levels of crime, stress and social unrest, and lower levels of trust in government and institutions. If the recent climate change protests are anything to go by, persistent inequality could lead to a sense of disenfranchisement, and segments of the population more forcefully demanding change. This means volatility and a challenging investment environment ahead.

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