# THE LONG EXPANSION: ITS END AND THE POWER OF BANKING

Paul Osborne

Published 20 March 2025

*'Do not put yourself into the position of zero rates. I tell you, it will be a lot more painful than you can possibly imagine.'*

Kazuo Ueda, Governor of the Bank of Japan

This second essay (the first essay was 'The End of Australia's Financial Cycle') reviews money creation, the central banks, the RBA, the commercial banks, and the end of the low-for-long interest rate era (2009–2021). The spillovers resulting from interest rate risk, the first stage of risk from the higher interest rate regime, have now baked into financial markets and have so far been well managed by central banks. The second risk stage, the credit loss stage, is still to materialise. The main takeaway from this essay is that overly accommodative central bank policies during the low-for-long era (2009–2021) 'brought forward' future asset price gains. This was mostly a policy response from central banks to ward off looming 'bad' deflation. Yet, the type of deflation experienced by most advanced economies was mostly misdiagnosed by central banks in the leadup period to the recent return of inflation. Central banks, which were mandated to hit near-term inflation targets, overstimulated their economies through their monetary responses that were designed to ensure inflation never settled below zero, which would induce in the public the perception of permanent deflation. The lowering of interest rates and the innovation of quantitative easing (QE) were overly relied upon by these central banks to put downward pressure on domestic exchange rates, increase household consumption, and increase asset values, such as housing prices, fostering ever more loan growth at the commercial banks. Yet, such policies are now in the process of being unwound; the associated monetary 'lags' are yet to play out for property markets. What has been underestimated is the role of money creation itself in the modern economy and how this has skewed asset pricing and sown the seeds of significant wealth inequalities.

In 2002, Ben Bernanke, the soon-to-be Federal Reserve Chairman, and now a Nobel laureate, made a speech before the National Economists Club in Washington DC, titled, 'Deflation — making sure "it" doesn't happen here'. Bernanke, a student of the Great Depression, who formed his thinking in the recent aftermath of the Dotcom crash, had been paying close attention to Japan, which was grappling with deflation of the worst kind (the so-called 'balance-sheet recession'). On that day in 2002, Bernanke put in motion both the monetary policy doctrine and the future prescriptions that would cloud the central banks' thinking and end abruptly two decades later.[1]

Bernanke took it as given that deflation was 'bad' and that its prevention was vital. Therefore, in 2002, he suggested the medicine that almost all central banks in advanced economies took to prevent it from happening: ZIRP (zero interest rate policy), quantitative easing, currency depreciation, forward guidance, and cheap fixed-term loans to commercial banks. Bernanke closed his speech with this remark: "Thus, as I have stressed already, prevention of deflation remains preferable to having to cure it. If we do fall into deflation, however, we can take comfort that the logic of the printing press example must assert itself, and sufficient injections of money will ultimately always reverse a deflation".

Over the past few decades, financial markets have oscillated between extremes, the central banks' balance sheets have ballooned globally, and strange political effects have manifested — most notably, the return of Trump to the US presidency. Deflation is presumed to be a disaster for consumer societies, especially those with high private debt levels. This is because it is thought that consumption collapses under deflation, and the real value of debt burdens becomes too high.

There is little doubt that global central banks had been treating the world for looming 'bad' deflation in the leadup to the pandemic. However, things were likely misread. Instead, many advanced economies were, in fact, experiencing a period of mostly benign 'good' deflation — the falling prices of many goods and services — due to globalisation, spare global labour capacity, technological change, and positive supply-side developments, due in part to China's manufacturing prowess and low exchange rate.

In an attempt to ward off a period of deflation by creating 'just a little bit of inflation', global central banks set their policy rates to the floor, even below zero, and unconventional monetary policy tools were pursued, in turn pushing up asset values — especially property prices, which are not included in most measures of the Consumer Price Index (CPI) used to benchmark the inflation target and to inform monetary policy. Property markets responded in kind, particularly land values: they boomed. (Land prices were removed from CPI calculations in Australia in the late 1990s, as per the recommendations of the Reserve Bank of Australia at the time.[2])

Paradoxically, by not distinguishing between 'bad' and 'benign' deflation, and treating the patient for bad deflation before it could be properly diagnosed, the central banks may have inadvertently opened the door to genuine 'bad' deflation in the future, due to the large debt

---

[1] Ben S Bernanke, 'Deflation — making sure "it" doesn't happen here', 21 November 2002. In 2012, the idea was further reinforced by Mario Draghi, the former ECB president, when he declared, "Whatever it takes".

[2] From the RBA at the time: "The acquisition of a house is really an investment activity, rather than consumption. As such, the cost of acquiring a house should not be included as a component of the CPI". Reserve Bank of Australia, Submission to the 13th Series Review of the Consumer Price Index, June 1997.

overhangs in the private sector, or alternatively, and perhaps more disturbingly, to future spurts of high inflation, coming and going in waves.

The large central banks understand not only that their actions caused the overvaluation of asset prices, but that they deliberately courted this. In their eyes, low interest rate policy, and strong use of unconventional policy tools, which raised asset prices and triggered the associated wealth feedback loops, was the preferable choice of two competing evils. On one hand was deflation and high unemployment; on the other was the overvaluation of assets and high wealth inequality, but lower unemployment. The latter was determined to be the 'lesser evil' of the two suboptimal choices, particularly with inflation risks seemingly extinguished at the time. However, as things turned out, inflation not only returned, it surged.

US monetary policy has global transmission. While the RBA operated a partial, lean-against-the-wind policy stance during the low-for-long era (2009–2021), it could not withstand the rapid global capital flows, due to Australia's wide-open capital account, nor the volatile movements in the exchange rate, nor indeed rising/falling global risk-free rates, which are largely based off the US 10-Year Treasury Note.

At around the same time as Bernanke made his 2002 speech, Australia was undergoing a 'debt shift' to its domestic credit allocation: more credit was going to households to finance property transactions and proportionally less to businesses for things such as plant and equipment. The banking regulations largely supported and fostered this revised path of credit allocation, as residential property collateral lessened capital requirements on the large domestic commercial banks, many of which were hit badly during the 1990–1991 recession by defaulting commercial property loans.

The Australian household financialised in the 2000s and took on more debt, while successive federal governments ran tight fiscal budgets, mostly trying to 'balance' the books. The issuance of government debt creates new money in the economy, but over the past few decades, at least up until the pandemic, much of Australia's 'new money' was created by the commercial banks, through the creation of banking deposits when they gave loans, especially mortgages. This has changed employment practices — in that those closest to the money creation practices are unlikely to go hungry — as well as capital allocation itself, with much capital being deployed to existing assets rather than the creation of new ones, which in turn has pushed those assets skyward in value over the past three decades and helped to vindicate risky investment structures.

Much of modern macroeconomic theory has long treated money as 'neutral' rather than central to economic and financial activity. The good theories of the past have, in many instances been driven out by bad ones. And foundational economists of much modern theory, such as John Maynard Keynes, have often been misinterpreted. Due to the banking system's ability to generate bank deposits from scratch; the type and amount of credit created, as well as the collateral that the commercial banks themselves hold, have a great influence over economic activity, the types of activities that occur, and the sustainability of credit expansions. Many of the ideas presented in this essay simply hark back to older economic ideas which were more ‘mainstream’ a century ago, and a growing number of current economists are slowly turning the tide on some sections of present mainstream economic thought.

The purpose of this essay is to explore the low-for-long era (2009–2021), the leadup to it, and the recent return to high inflation. Monetary policy is by no means the only consideration when examining the sky-high asset values of today. The political economy helped to lay the seeds: urbanisation, globalisation, global capital flows, planning and zoning, dual and rising incomes, China’s economic might and its beneficial trade with Australia, as well as greater wealth concentration, have all played a hand.

Monetary policy is just one of three important levers: fiscal policy and taxation policy are the others. Thus, the narrative I produce here is just one part of the story. Some may doubt monetary policy’s role in the present high asset prices due to the (as yet) partial impacts seen in the reversal of the low-for-long interest era. To these readers, I suggest that the financial ‘lags’ from the present and ongoing changes to monetary policy are yet to come.

SUMMARY

- The low-for-long interest rate era (2009–2021) is over. While nominal interest rates are likely to trend lower, perhaps much lower, a return to the low-for-long past is highly unlikely, especially regarding the inflation-adjusted real rate of interest.
- Commercial banks (e.g., CBA, NAB, Westpac, ANZ) have created most of the money within Australia's economy via their lending activities to households purchasing residential property. The 'debt shift' is partially responsible for overvalued housing markets and has likely led to a misallocation of resources in the economy.
- Commercial banks perform a key function for property owners: they credit them with bank deposits, or 'new money'. This new money finds its way to asset holders willing to part with property titles, which are pledged to the banks on behalf of new borrowers.
- Demographics are destiny. One's birth year may be more important than one's occupation or saving habits in determining wealth status. Those who purchased property in the higher interest rate environment (suppressing asset prices) prior to the Great Financial Crisis (GFC), used the low-for-long era (2009–2021) of declining interest rates to pay down debt, and those lucky enough again sold assets such as investment properties — receiving 'new money' (bank deposits) based on high valuations. Following on from this has been the channelling of new money into interest-bearing financial instruments. This has been a splendid tailwind for the right demographics. Unfortunately, new entrants are the financial casualties of the reversal.
- Monetary policy operates with famous 'lags', but these lags may be much longer than a year or two. They likely have decades of influence on financial conditions. Kazuo Ueda, the governor of The Bank of Japan, remarked that the lags may be up to 25 years or so.[3]
- Interest rate changes at the lower levels have a greater impact than similar changes at higher levels of interest rates.
- The conditions of overvaluation are ripe to occur when people and firms have long, open-ended investment horizons and undervalue liquidity.
- Real interest rates have only recently turned positive; therefore, the past few years, even with the higher nominal interest rates, have seen relatively loose financial conditions overall. High real interest rates are a challenging financial environment for the highly indebted parts of society.
- Risk-free rates based on low sovereign bond yields used to judge investments were the wrong approach for many real estate investors, particularly in relation to commercial properties. The approach allowed some investors to outperform in the short-run by paying the highest price and winning the asset, and by receiving large on-paper capital gains as sovereign bond yields fell yet further, helping asset prices to continue to rise. Yet many of these investors, especially the ones who entered late, now hold large paper losses due to the significantly higher risk-free rates and they may be forced to clear at large losses in the years to come.

[3] "BOJ's Ueda Keeps Central Bankers Laughing in Sintra", Bloomberg, June 28, 2023.

- The present time is still marked by frothy financial markets, including property markets. The higher interest rate regime has so far held up well against interest rate risk. The second stage, the credit loss stage, has yet to materialise.
- Residential property yields remain far too low to adjust to the rising costs of property ownership and higher borrowing costs.
- High inflation is comparable to a slow-moving financial crisis. Households and small business may be more 'backward-looking' in how they react to inflation than the economic textbooks suggest. The forward-looking 'inflation expectations' view of inflation may be underestimating future risks. The recent changes to the entire price-level of the economy will take many years to understand, as will the consequences.
- The RBA's aggressive overuse of QE, as well as its implementation of an almost ZIRP, combined with heavy forward-guidance usage and the Term Trade Facility (TTF) banking subsidy, were too much during the pandemic. The Australian housing market went from a $7 trillion dollar market cap to $10 trillion dollar market cap with almost no population growth.
- The low-for-long era swelled principal loan totals and the capital values of many financial assets, especially property prices. It brought forward future capital appreciation.
- QE has likely distorted the 'fair value' of property prices, perhaps permanently. Yet it will likely be skewed to the wealthier postcodes. Quantitative tightening — the reversal of QE — will perhaps never be completed in its entirety due to the next crisis arriving before it can be unwound.
- Monetary policy was relied upon too heavily over fiscal policy and structural reform during the low-for-long era. Monetary policy helps determine asset prices. The RBA may have 'squeezed the lemon' too far at the expense of future asset price growth, used to boost household consumption.
- Australia largely imports its financial conditions from global financial conditions, most notably the US. US monetary policy is too powerful to be countered. This has made it extremely tough for the RBA, as global financial conditions can often take precedence over domestic ones, especially for small, open economies such as Australia's.
- The RBA used lower interest rates post-GFC to help drive a lower exchange rate as well as to deter people from safer financial instruments, such as bonds and savings accounts. Many staff at the RBA had misdiagnosed the low inflation as 'bad' deflation, rather than 'good' or 'benign' disinflation. This resulted in an only partial lean-against-the-wind monetary stance.
- Global central banks should have worried less about deflation risks, and worried more about climbing asset prices, especially property prices, to avoid genuine 'bad deflation' down the road caused by the large debt overhangs that have accrued in the private sector.
- Approximately 1.7 billion workers were ushered into global supply chains and services around the same time that the central banks became inflation-targeting regimes, pushing down the costs of global labour and goods, resulting in positive supply-side developments and falling inflation rates.

- Monetary policy imposes intertemporal trade-offs on the economy. Any central bank must react to today’s circumstances, but in doing so it really acts upon past policy choices, and in turn, the bank’s response sets up the financial conditions for many years ahead. By trying to stimulate for so long, the central banks have laid traps for themselves for decades to come.
- The effects of central bank stimulus measures wane over time. The financial cycle plays with policymakers; it makes them impotent over time. Numerous policymakers keep changing direction within one cycle, and they act on data over small periods of time, a quarter here or there, while the financial cycle works out over decades.
- Therefore, successive stimulus cycles from a central bank, designed to avert smaller downturns, in fact simply extend the financial cycle and put the central bank at risk of ‘pushing on a string’ when the cycle can no longer be sustained. Incumbent policymakers today are left with little headroom compared with their recent predecessors.
- Landowners, especially many of those new to development, will need to sell land at large losses from the sites acquired at the peak. This will allow land to gravitate to a new crop of developers who can undertake profitable projects.

## INTRODUCTION

The crux of the matter is banks. While the central bank is the all-powerful force in banking, the commercial banks are the real on-the-ground locomotives that determine much of total economic activity. Today's central banks still operate in most instances with models that don't factor in an endogenous financial sector to their main forecasting model.[4] Financial variables are not subsidiary; they are the core elements of today's monetary economies.

It is said that monetary policy 'gets into all the cracks'. Monetary policy influences the large commercial banks in terms of how they price and extend credit to the community, which in turn shapes much of the money production in a modern economy. [5]

The commercial banks enjoy tremendous social privileges, such as the right to produce money, as well as almost assured profits on the mortgages they underwrite. They are also protected by state bailout should they ever fall because they are simply too big to fail. The collateral a bank holds is a key material used to create much of a nation's money supply. In Australia's case, the collateral par excellence is residential property.

Residential property can make for very good collateral, but collateral should be diverse in character, and this is a risk in the Australian context. Socially, the banking system and the middle classes are bound up together. The rise or fall of either has detrimental impacts on the other. Higher real interest rates, looming climate risk, and further geopolitical uncertainties are all set to intensify over the coming decade, and this will bring challenging times to local property markets, many of which still suffer from extreme overvaluation under the heavy use of too much debt. But the decade to come will also bring forth immense opportunities.

This essay is long. The reader is encouraged to dip in and out of it as they please or find a section that interests them.

[4] "One in five main models has endogenous financial sector", *Central Banking Journal*, November 28, 2024.

[5] I use the term 'commercial banks' throughout this essay to refer to what some might refer to simply as 'retail banks'. This is due to the sheer size of Australia's most well-known banks.

## COMMERCIAL BANKS CREATE MONEY

Banks are presumed to provide loans. Banks do this, of course, but there is more to banks than simple loan providers. Less understood is that banks are the creators of most money. They are not simple repositories for the safeguarding of deposits and savings; they are often their originators. In other words, the major Australian commercial banks — i.e., CBA, Westpac, NAB and ANZ — do not lend out savings entrusted to them by cautious depositors and to impatient borrowers; nor do these large banks leverage up central bank money via the money multiplier theory.[6] Instead, the large domestic commercial banks create banking deposits when they generate loans, and we refer to this as 'money'. Money creation, at least in the pre-pandemic era, was largely privatised and carried out by the large Australian commercial banks, which had monopoly-type control over the process.[7]

Bank deposits are not endowments to loan formation; they are the by-product of bank lending itself from credit creation.[8] The money system is really a loan-first one. Investments are made and savings emerge in the economy from those investments. The banking system creates bank deposits when any new lending takes place, expanding the community's purchasing power, when people are granted credit for such things as mortgages or business investment. While newly issued bank debt creates 'savings' in the economy, the repayment of bank debt destroys them. This is one key reason why the financial system is a precarious one, one that is subject to boom and bust, one that is subject to bouts of inflation, and one that is sometimes subject to debt deflation.

Some economists use the term 'fountain pen money' to describe the power of banks to create money from scratch, while others refer to 'inside' or 'keystroke' money — some historians speculate, provocatively, that the peak production of fiat money may have been reached due to the overuse of policies such as QE.[9] [10]

---

[6] I use the term 'commercial banks' throughout this essay to refer to what others might call 'retail banks'. The Australian banks are so large and concentrated that they fall under both terms.

[7] The RBA and the Australian Government have both taken a more direct role in money creation since the pandemic. The RBA is the monopoly provider of central bank money, but in practice, most bank money is created by the commercial banks, which is sometimes referred to as 'inside money' — and the community is largely happy to hold 'inside money' as a store of value, either trusting in the unit of account or perhaps unaware of the difference.

[8] The word 'deposit' further confuses the matter. Professor Victoria Chick, the recently deceased post-Keynesian economist, made the point that the word 'deposit' is a hangover from the days of goldsmiths who would store gold for safekeeping on behalf of customers. What is stated in this essay is that modern banks do not lend out other people's deposits; they instead create the deposits when they make loans.

[9] *Keystroke Capitalism: How Banks Create Money for the Few*, Aaron Sahr, January 1, 2022, Verso.

[10] "Monetary policy hysteresis and the financial cycle", BIS Working Papers No 817, Phurichai Rungcharoenkitkul, Claudio Borio and Piti Disyatat, October 2019. To be clear, the BIS and its authors do not make any speculation on the limits of fiat money production.

Think about the time you may have gone to the bank to take out a mortgage. Did the bank employee ever question themselves as to whether the actual funds were free and available before they could lend them out to you? Of course, they did not. Any 'spare' residual money held by a bank is not allocated to you when you take a loan. Nor is it so that when the loan is paid back, the money is returned to its rightful saver. The money is created by electronic book entry, and destroyed upon repayment. The accidental crediting of $81 trillion (the globe's entire annual GDP) by Citibank to one of its accountholders, instead of the $280 that was supposed to be transferred by the bank, is a case in point on how money is not allocated as such, but it is created.[11]

The commercial banks run a careful concern that requires them to generate loans, creating bank assets (mortgages), while securing the funding to balance their financial accounts. This is done in the form of further debt, retail deposits, and wholesale funding. The commercial banks are required to make sound loans to creditworthy borrowers underpinned by sound collateral; however, what constitutes both creditworthy borrowers and sound collateral shifts over time. People and firms are transformed as the economic landscape changes around them, and the banks change with them. The issuance of longer-term bonds by the commercial banks ensures large enough capital buffers to help protect them against failure, and residential property is the major form of bank collateral held as security by the large Australian banks.

Banks are in the business of maturity transformation: they lend long and borrow short.[12] The ongoing development of credit creation swells aggregate bank deposits, ushering in new money, which permeates the entire financial system. It is this feature of the banking system that produces most 'money' in people's bank accounts. Bank deposits are ultimately circulatable liabilities of the retail and commercial banks themselves. The modern banking system expands societal purchasing power in the short term, but this comes at a price: asset-inflation tends to reap inequality, and there is a longer-term loss of purchasing power through inflation. Money creation by banks is itself not wrong, but the purposes and the amount of the new money created do matter.

## COLLATERAL HUNGRY

The banking system is both hungry for, and demands, 'good' collateral. The Basel Framework — a set of global banking standards and supervision measures, localised and adopted into advanced economies' banking systems — allocate a low risk weighting for residential property when held as collateral by the large banks. The commercial banks can extend mortgages to people and groups who buy residential property comparatively easily, as they do not have to

[11] Citigroup erroneously credited client account with $81tn in 'near miss', Stephen Gandel and Joshua Franklin, Financial Times, February 28, 2025. The error was picked up by Citibank when an employee picked up an error with Citibank's account balances and the payment was reversed several hours after.

[12] Or, in other words, banks create long and borrow short.

comply with the tighter capital requirements imposed on commercial property lending activities and business lending.

Since the 2008 GFC, progress on improving the soundness of banks has been made, but the banking system, and particularly the Australian banking system, remains heavily concentrated in its residential property lending activities. This is the Achilles' heel of the national financial system. The RBA understands this, and so does the banking regulatory body, APRA.

The amount of central bank money that is available is small compared with the money stored electronically on people's smartphones and laptops and buried within the digital ledgers of Australia's largest commercial banks and financial institutions — although this has changed somewhat since the pandemic. The RBA holds the monopoly over central bank money — for example, a commercial bank cannot create Australian banknotes. The ATM withdrawal is the departure point between the electronic money that a commercial bank can produce, and the physical currency that it cannot. The commercial banks require central bank reserves, stored electronically at the central bank, to settle the transactions they make between one another.

Central bank reserves are 'public' monies, and they anchor the 'private' monies that build up within commercial banks. They are expected to meet the value of these private monies at commercial banks at par. The Australian government's deposit guarantee scheme provides a safety net of up to $250,000 AUD on deposits stored with the domestic commercial banks to provide confidence to the public that their commercial bank holdings are safe.

Since the GFC, the commercial banks have been forced to meet stringent capital requirements.[13] Commercial banks have become safer as a result, but they have also become much larger, and therefore, greater systemic risk lurks within the system now than it did in the past. And it is worth noting that financial risks rarely disappear; they simply gravitate to new parts of the financial system, as regulation has a habit of simply moving risk from one area to another.

## COMMERCIAL BANKS PROVIDE A KEY SERVICE TO ASSET HOLDERS: LIQUIDITY

Money relations are a reality of modern life. Much social life is about money — tallies of who owes what to whom, a complex web of almost limitless rights and obligations. The overuse of credit amplifies and complicates social relations. Myriad future-dated, time-bound payment commitments are built on an almost infinite list of liabilities, created from both past and present, all requiring future payments from often yet-to-be-found revenue sources.

Take any standard simple house purchase. A household takes on a 30-year mortgage commitment today (a liability) with usually just a small down payment and equity buffer. The household is, at best, only able to make the crudest of estimates on what their future income may be, and usually relies on the optimistic expectation that household revenues will only continue to grow. The household's liability — the payment schedule from a 30-year mortgage

---

[13] Capital is not 'held' by banks at such, but is a form of bank funding, which absorbs any losses that could threaten a bank's solvency.

commitment — is known in advance. The household usually understands that it is staking its future on 360 separate repayments, with the monthly total to be altered according to the prevailing rate of interest; the monthly payments might go up or down depending on the central bank regime of the time, as well as the wants of the commercial lenders and their liquidity preferences at the time.

Revenue is mostly more uncertain than expenses, particularly for households. Many households have little idea what next year will bring, let alone five years in the future, and whether the employment markets will be strong or weak. The complexity of all future financial claims in society are so vast that they cannot be comprehended by any central bank or government. To add to this complexity, each household's balance sheet interacts with that of every other. And in a globalised world, balance sheet interactions ripple across global borders.

A period of financial boom and overvaluation occurs when people have long, open-ended investment horizons, and undervalue liquidity. A period of bust can be ripe to break when a high value is placed on liquidity and the marginal buyer cannot be found to support the prices of the recent past. We know from markets that the mood of investors and speculators is usually synchronized on the way up, and equally so on the way down. The settlement constraint — the need to settle time-dated contracts — is one of the fundamental rules of the financial system. Without the timely settlement of contracts, domino-type cascades of further non-payments can be vast and unpredictable.

## VARIABLE RATES

The Australian financial system is shaped by a mortgage lending system based on a variable interest rate culture. This makes for a challenging landscape for both people and firms when interest rates rise. A mostly unknowable future hovers for domestic mortgage holders, in which it is presumed, from both imperfect insight and calculation that certain specific future cashflows will materialise to service past-constructed, long-term liabilities. All payments from the community require meeting the 'settlement constraint' to avoid default — or if the settlement constraint cannot be met, community members must come to 'the market' for the needed liquidity, and that liquidity must be provided at non-knockdown prices.

Asset holders are credited with 'new money' by commercial banks each time they elect to sell assets, such as property, in the form of bank deposits.[14] In this way, the commercial banks perform a crucial role for property holders, by providing them with the needed liquidity. Presuming the outstanding mortgage obligations remain less than the agreed sale price of any disposed asset, an instantaneous bank deposit is credited to a property owner, who can provide the 'good' collateral the bank demands, the property title, pledged on behalf of the willing borrower. The big commercial banks thus create money and this flows to existing asset holders.

[14] A buyer and seller can trade all cash, of course, and buyers can borrow from others who provide already existing private funds. But most loans are created through the commercial banks, and most of this is new money.

Residential property titles are the ultimate forms of security held against a borrower in the banking system today.[15] This is partly cultural — Australians are presumed to never walk away from a mortgage repayment if that would jeopardize their home — but also regulatory, as the Basel banking regulatory frameworks have tilted the banking system this way since the large commercial property busts prior to the 2000s.

One simple illustration of the debt creation and liquidity provided to an asset owner is the not-uncommon financial transaction between an old household and a young one. An old household may consist of people at the end of their working lives with little to no debt, while the young household may be first-time buyers at the start of their working lives. The old household may hold title to property and the young household may have the down payment and hopeful capacity to service future debt claims. A commercial bank usually establishes the creditworthiness of the young household, and if amenable to the bank, accepts a down payment generating the loan, creating the 'bank deposit' (the purchase price), while securing the property title as collateral. The old household is paid out the purchase price, less any outstanding mortgage obligations. The young household locks in a long-term liability structure and now has a drastically altered balance sheet, which has been formed under both the monetary regime and prevailing economic conditions at the time of purchase. The old household now finds a good deal of money in its bank account. This is newly created money.

In this light, it is a little easier to comprehend the recent simmering tensions on the much reported 'housing crisis'. An older generation of Australians were able to lock in liability structures when interest rates were high, but more importantly, when asset values were low (high interest rates helped suppress asset prices). They were able to pay off the acquired relatively 'cheap' assets using rising real incomes and falling real interest rates. The most splendid of tailwinds.

These older households have been able to 'cash out' and take liquidity when credit markets were at their most liberalised since the late 19th century, and when interest rates had declined to their lowest on record (thus increasing asset values) — and the banking system was set up to generate new money for these households, as they held the best form of bank collateral (i.e., residential property titles) to exchange and pledge with the bank on behalf of an incoming borrower, as well as holding little to no debt.[16] The argument that these same benefits that the older generations accrued will also apply to the younger generation is, mathematically at least, highly unlikely.

---

[15] Residential property titles are also the realistic collateral option for both borrower and bank — i.e., most people don't own sovereign bonds individually that could be pledged as security. I thus use the word 'ultimate' in the sense that it is the most realistic option for most people.

[16] Of course, it's the purchaser who pledges the collateral, ultimately. But the reality is such that the collateral cannot be provided if the vendor does not release it and to release it, the full funds, the purchase price, is required.

## HIGH DEBT, HIGH BANKING DEPOSITS

The claim that commercial banks create money and do not lend out existing reserves has been written about by economists such as Joseph Schumpeter and John Maynard Keynes; yet it has not pierced the common understandings of the public. In many instances, even mainstream theories still use the money multiplier theory. Modern Monetary Theory (MMT) is a more extreme view that has gained recent popularity, pushing 'solutions' likely too far, but it has at least generated further knowledge in popular culture about money creation.

In 2014, the Bank of England (BoE) detailed the mechanics of money creation and QE in a modern economy in what was a ground breaking paper considering the bank's revered status in global finance.[17] Organisations such as the Bank for International Settlements (BIS) had been writing about this for some time, but it was the BoE paper that started a cascade of articles on money creation from other central banks, including the RBA.[18]

Any thought of banks as traditional financial intermediaries between saver and borrower should be banished. The commercial banks, those with the initial capital and the Authorised Deposit-Taking Institution (ADI) license, are producing money, and it flows readily to those holding property titles and who are willing to exchange them for freshly created bank deposits ('inside' money). The commercial banks make profits from the interest they collect on loans less the interest it pays out to depositors and other funding sources (as there are some constraints to banking and money creation). The gap is called the net interest margin; it is the cream of banking.

This leads to an important question — who is the true client of commercial banks? Is it the borrower, who is granted purchasing power and new money to acquire an asset, such as a property? Or is it the existing asset owner — who is willing to part with their property title in exchange for a newly created bank deposit in their bank account?

It could be argued that both parties are clients, yet when property values are high, the true client might just be the asset owner willing to exchange their property title for bank money, thereby helping increase the bank's net worth. However, in depressed property markets, this could turn in the opposite direction. Increasingly, the depositors, usually existing and former asset owners at the group level, are of greater importance to banks, as they provide banks with lower funding costs.

A highly indebted society has the financial architecture that produces higher stocks of banking deposits, and we refer to these as 'savings' after they have been created. These bank deposits, or savings, are highly concentrated among the wealthier segments of the community. The owners of banking deposits are the mass creditors within the financial structure.

In the post-GFC landscape, the claimants to bank deposits have become less powerful in the tug-of-war between creditor and debtor as interest rates plunged, delivering paltry returns to

---

[17] "Money creation in the modern economy", The Bank of England, 2014.

[18] Christopher Kent, "RBA, Money – Born of Credit?" Sydney, September 2018.

those who held bank deposits. Rising bond yields on both government and corporate bonds, as well as more historically aligned term-deposit rates have tilted the balance back to depositors, the creditors. Should inflation continue to fall, and real interest rates keep drifting up, this shift will be felt even more acutely.

## BANK ELASTICITY

Banks are highly elastic in their tendency to create credit in good times, which expands nominal purchasing power. Think of the classic rubber band that stretches well beyond its initial flaccid position under tension and then snaps back with a vengeance. In bad times, the outright contraction of bank credit, the worst example being debt-deflation, shrinks nominal community purchasing power. The creation of new bank credit creates new money, while the paying back of bank credit destroys it.

The paying down of debt, if performed at the aggregate level, can lead to a weak economy, as it indicates a community undergoing a deleveraging. The extreme expression of this is referred to as a balance-sheet recession. Richard Koo, a former Federal Reserve central bank economist, provides the best modern interpretation,[19] detailing Japan's deflation trap that took hold in the country in the wake of its 1990s real estate and stock market downturn. The average consumer became so cautious that even numerous government stimulus programs such as free shopping vouchers mailed out to citizens went unspent. The Japanese people paid down debt, very few people or firms took out new loans, asset values and consumer prices plunged. Today, China is very close to slipping into its own style of balance-sheet recession.

Commercial banks are not like other businesses; they have a very different financial composition. The mortgages that the banks create by granting loans are recorded as bank assets on their balance sheet, while banking deposits are marked as liabilities. Falling interest rates increase the value of banks' existing mortgage book, swelling bank assets and overall bank net worth. Mortgages are long-dated financial assets; their existing values to a commercial bank grow when borrowing costs and discount rates fall, leading to higher net worth for banks.

A bank's greater net worth encourages it to continually reinvest, which for a bank means more lending, and thus more debt creation. And during property booms, the balance sheets of banks are transformed. Importantly, both the bank doing the lending, and the borrower using existing collateral to borrow still more to acquire further property assets, are mutually reinforcing one another in feedback loop during booms. Without being completely aware of it, all parties are helping to create one another's valuations through this circular mechanism that raises perceived prosperity, leading to overconfidence. And what appears to be prudent

[19] Rickard Koo. *The Age of Balance Sheet Recessions: What Post-2008 U.S., Europe and China Can Learn from Japan 1990-2005,* Tokyo, 2009.

management can, in retrospect, be risky business. Net worth and asset values become unanchored for banks, people, and firms during long periods of prosperity.

The marginal buyer shapes property prices and is therefore crucial to any system dependent on property values. This small number of transactions, rather than the entire pool of properties unavailable for sale, sets the value of bank collateral, as well as people's and firms' perceptions of wealth. At the systemic level, councils and state governments plan much of their infrastructure and services expenditure, as well as other investment activities, on the basis of the percentages collected from the 'book' value of property. Hence, we are now seeing all sorts of fiscal issues at the level of state governments, as governments had presumed that revenue sources from property would expand in an exponential fashion.

One of the chief functions of the central bank is to keep commercial banks in check. The central bank influences money creation in the economy by how it deals with the commercial banks, including the setting of the overnight cash rate, and while the central bank is ultimately the more powerful force, it often plays the archaeologist in the tussle between them. The central bank only understands the true mistakes of commercial banks usually ex post. The commercial banks are the frontrunners to most property lending booms and to the money creation process. Big banks drive the economy, and they drive property markets.

## MONEY CREATION LIMITATIONS

The processes behind money creation are understood by many people in finance, but not as many as one might have thought. Many people in the community still think commercial banks are something that they are not, such as entities lending out pre-existing reserves, rather than private institutions that produce money under social license. It would not be a stretch to suggest that many minds think still of banknote-filled vaults and bank clerks running to-and-fro.

In a sense, the creation of money has largely been privatised since the financial deregulation and credit liberalisation reforms, which took place in Australia between 1973 and 1986, and were amplified to a new level during the present financial cycle (Financial Cycle 5, 1992–ongoing). The privatised money creators in Australia today are mostly the 'Big Four' banks: CBA, NAB, ANZ, Westpac (and increasingly, a fifth, Macquarie Bank). These institutions are the prime movers within the nation's financial structure.

There is no such thing as a free lunch, and there are therefore limits to money creation. The main concern with the type of financial system detailed above is the lagged effects between the growth of credit, as recorded in the national credit aggregates, and the delayed effects of excess money creation showing up in the CPI basket, thereby signalling inflation. Yet sometimes the bill is passed decades or even generations down the line. Also, when the created deposits are going to those who already hold substantial deposit money, inflation shows up less in the usual CPI calculations and more in generalised asset inflation.

Commercial banks have immense privileges, and for these privileges they have constraints. Prudential regulations, such as stringent capital requirements, constrain bank lending, and banks require equity investors and outside funding to maintain profitable operations. The optimism of borrowers will largely determine credit demand, which alters the money supply.

While credit growth has slowed down in percentage terms since the GFC, the total gross amount of credit created in the overall system has been large. It is almost a sure thing that at the aggregate level, borrowers will turn cautious and elect to pay down existing loans (rather than developing an increased appetite for new debt), thereby destroying money, and property values are likely to decrease or at least stagnate in response.[20]

The reason for the dominance of the big banks in Australia is in part due to the past bank failures and mergers that litter Australia's history, but also due to the eventual destination of new money after it has been electronically created, post loan. Any bank's balance sheet needs to be carefully calibrated to retain deposits and funding to meet the loans it has underwritten.

A new bank cannot simply open and produce money — it must settle loans with other banks using the electronic money of the RBA payment system. Any deposit creation will, in all probability, leave the originating bank and circulate elsewhere in the banking system, usually a rival bank of the creator. If a bank simply loses its created deposits without replacing them, then it becomes insolvent. If the commercial bank is large enough, however, a lost deposit will likely be replaced by another deposit being captured by the bank from elsewhere in the banking system. In some cases, a large bank may write the loan, create the deposit, and retain the bank deposit, too.

The size of the Big Four banks is due in part to their ability to capture and retain new banking deposits from within the banking system; hence, they offer all sorts of other banking services to ensure that deposits remain 'sticky'. Complexity scientist and economist, W. Brian Arthur, wrote some time ago about the phenomenon of 'increasing returns' — or, simply put, the big getting bigger.[21] The large banks have won the initial competition to achieve scale. And new banking regulations, in trying to make banks safer, have ended up making the big banks even larger.

The cheapest funding for banks is the garden variety retail deposit. This explains the reluctance of the large banks over the past few years to pass on the higher rates of interest to depositors' bank accounts. The more retail deposits that a bank has under management the more this improves its overall net-interest margin. Since the GFC, the large banks have turned more to retail deposits as their funding source, rather than outside sources, due mostly to regulation.

---

[20] Another alternative is that a deleveraging will be forced by regulatory bodies or even the central bank to ward off long-term instability risks. Rhee Chang-yong, Governor of the Bank of Korea, has hinted at the need to drive household debt down below 100% of GDP. Korea and Australia share comparable circumstances when it comes to the high levels of household debt. See 'Bank of Korea Governor: Property Market Achieved Soft-Landing', Bloomberg, October 12, 2023.

[21] Arthur, W. Brian. *Increasing Returns and Path Dependence in the Economy*, 1994. Published in the United Sates of America by the University of Michigan Press.

Commercial banks try to retain existing loans, generate new ones, and win over existing loans created by rival banks during refinancing opportunities. The loss of loans to rival banks lowers bank net worth. Careful attention is paid by banks to ensure they keep good loans belonging to the most creditworthy borrowers. The smaller banks are more tightly constrained and face continual pressures from both the asset side and liability side of their balance sheets. These banks can easily lose loans to bigger rivals, as they cannot compete with the mortgage rates provided by the large banks. They also tend to lose more deposits than they create or take in, and therefore, they are more dependent on outside funding to sustain bank operations. This all adds to the cost of capital for small banks.

Large bank executives refer to 'system growth' rather than 'surplus funds' to suggest the actual realities of money creation over old notions of lending out pre-existing reserves. Banks measure their lending against the entire system's creation of credit, as revealed by the credit aggregates. The large banks are careful not to outpace the system too much, as this could mean taking on less creditworthy borrowers at heightened times of risk. Nevertheless, most large banks do not want to lag the system for fear of missing out on the large profits to be made from new lending. Bank shareholders demand it, and bank executives' bonuses depend upon it.

Big banks are carefully calibrated to grow in tandem with one another. Credit expansion and money creation activities need willing partners and synchronisation. The commercial banks are not merely competitors, as their advertisements often suggest, but are also partners in any credit expansion. Each commercial bank's health, or lack of it, can help determine the collective fate of them all.

## BANKS ARE DESIGNED TO FAIL

Banks store created bank deposits ('inside' money) on behalf of creditors, the bank account holders, and pay those holders interest to retain their deposits. The sophisticated creditors opt for high-interest term deposits, government bonds, and high-yielding corporate bonds, to enhance financial returns — especially in a higher-interest rate regime.

Debtors pay the rising interest repayments; this protects and increases bank margins, and allows the creditors who hold interest accounts to be renumerated and for their deposit money to stay put. The community's largest creditors mostly inhabit the most exclusive postcodes. Many such creditors have high savings and enjoy the present benefit of receiving substantial interest payments on their spare accumulated capital. Increasingly, the higher end of the wealth distribution spectrum has less debt, as well.[22] The new higher interest rate regime is thus beneficial for those situated in the upper strata of society. This partly explains why the property prices in the most expensive postcodes continued to hold for some time after the spike in interest rates, as many of their inhabitants have little to no debt and in fact are producing more money. The heavily leveraged debtors at the other end of the scale are

[22] The wealthier now have less debt proportionally, yet middle-class debt has been rising. See: "How the 1 Percent's Savings Buried the Middle Class in Debt", Rebecca Stropoli, May 25, 2021.

experiencing increased mortgage costs at rates of interest that many people had thought were a thing of the past. Meanwhile, the prospect of significant future rate relief continues to drift further out on the horizon.

Banks are designed to fail — and they do.[23] The creation of credit for speculation is the 'sure thing', and this gets banks into trouble. Banks are not as safe as they might appear. In 2014, David Murray's 'Financial System Inquiry' — an inquiry into the robustness of Australia's banking system — stated explicitly what many investors and bankers already knew: big banks have an implicit guarantee that they will be bailed out at a time of crisis.[24] The adage that profits are privatised while losses are socialised is true when it comes to the systemically large banks. Murray pointed out that all Australia's largest banks have a similar business model. The large size, balance-sheet similarities and interconnectedness of Australia's big banks meant a high probability that they would all get into trouble together when a credit boom ended. This implicit guarantee has lowered funding costs for the largest banks, in the process making them bigger still, as bank equity investors and capital providers have understood that any large bank's chance of failure is almost nil, as a bailout would be forthcoming if any sufficiently large bank got into trouble. The lower cost of capital for the large Australian banks has made them more profitable and bigger still. Murray refers to these approximate 20- to 25-year financial crises (or financial cycles) that seem to occur in most countries. Murray is a former CEO of the Commonwealth Bank; he is well credentialled to raise the dangers that the large banks face and the problems this will impose on the community should they fail.

Macroprudential policies, which are polices that are directed at curbing credit booms and systemic risk using separate measures from interest rates, have been greatly improved, and Australia is seen as a leader in this field. Yet, if history is a guide, there are limits to what macroprudential tools can do on their own. Such tools may be more successful in creating buffers, such as tough capital requirements for banks, or stringent loan-to-value ratio (LVR) restrictions placed on prospective property buyers, than at actually stopping the boom and bust from occurring. In other words, boom and bust are inherent within-system determinants in a capitalist system. Instead, what can be realistically achieved is limiting the severity of both the upward and downward phases of each credit cycle by making good policy decisions.

Australia's debt-to-GDP ratio of household debt has skyrocketed from 25 per cent of Australia's GDP in 1990 to over 100 per cent today. The war stories about sky-high interest rates from an older generation of homeowners during the early 1990s do not provide a good comparison with today's problematic backdrop. The sheer level of debt — the total of the loans themselves — is significantly larger. Today, we no longer see the same surging credit growth, as the financial system has reached the limits of credit creation. A 2000 paper, titled 'The Australian Financial System in the 1990s', delivered by Marianne Gizycki and Philip Lowe, stated, "While the average credit quality of residential mortgages may have declined a little over the decade, the shift into housing loans, and away from commercial property lending, has

[23] "Banks are designed to fail — and they do", Martin Wolf, *Financial Times*, March 15, 2023.
[24] Financial System Inquiry, David Murray, 2014.

undoubtedly reduced the overall riskiness of banks".[25] This comment, in retrospect, seems rather premature.

Huge banks have now been created that are too big to fail; yet they may be too difficult to rescue. The residential mortgage powerhouse, the CBA, had a $6 billion market capitalisation in 1992 when Murray took the helm of the bank. Today, it exceeds $250 billion, depending on the ebb and flow of the stock price.

## THE DEBT SHIFT

Since the start of Financial Cycle 5 (1992–closing) there have been noticeable changes in the way credit is allocated and, therefore, how money is being produced and for what purposes. This period has been referred to as the 'debt shift' by some academics.[26] The credit creation process has moved from one which focuses on productive activities, such as business investment, to one that favours existing financial assets, such as established residential properties.

Financialisaton is a term used by many scholars to describe a concept related to the debt-shift concept, but which has a more encompassing nature.[27] The idea behind financialisaton is that businesses and households have taken to financial markets with gusto since the 1980s, with the objective of increasing short-term profits at the expense of making longer-term investments. You can see evidence of this today. For example, numerous car companies make very little money from the sale of their cars and are instead dependent on their customers being financed by them at the point of sale, which secure them their real profit. Another example is households, many of whom over the last few decades have made far more income from capital gains from house and share disposals than from wages.

History is littered with people and firms who made investments, of course. There is nothing new here, but historically, it is unusual to have such widespread adoption of the practices we see today. To a certain degree, this can be seen as a success, as financial markets have become more accessible to more people. Yet, for many, this has been about trying to make up gains from losses elsewhere. One of the key ideas behind financialisaton is that everyday people have used credit to mask the underlying realities of falling real income. And financialisaton has worked up to a certain point, in that it has solved this tension of greater inequality; people have simply borrowed to make up the difference. Yet it is a facade. When the credit cycle turns, which it must, the most vulnerable to the looming reversal in asset prices, or to weak employment conditions, are left exposed.

The composition and level of debt across Australia has changed markedly over time. At the end of Financial Cycle 4 (1978–1990), which culminated in the 1990/1991 recession, corporate debt was a mere $200 billion. Household debt was just $65 billion for owner-occupiers and

---

[25] 'The Australian Financial System in the 1990s', Marianne Gizycki and Philip Lowe. See www.rba.com.au

[26] 'Credit policy and the "debt shift" in advanced economies'. Bezemer, Dirk; Ryan-Collins, Josh; van Lerven, Frank, et al. In: *Socio-Economic Review*, Vol. 21, No. 1, 01.2023, p. 437–478.

[27] *The Financialization of the American Economy*, Greta R. Krippner, 2005. Harvard University Press.

household investment debt was $10 billion. For every $3 of credit generated, $2 had gone the way of business, with a non-trivial amount finding its way into commercial property markets. The rapid expansion of household debt — the 'debt shift' — emerged out of the 1990/1991 recession, and it is part of today's Financial Cycle 5 (1992—closing). Credit growth, due to demand from owner-occupiers and strong property investment lending, has far outstripped those of businesses, which were still undergoing a de-leveraging well into the mid 1990s.

## THE HOUSEHOLD

By 2000, total household debt had surpassed business debt. At today's levels, owner-occupier mortgage debt now accounts for $1.593 trillion, while an additional $752 billion of debt is in the form of property investment debt. The household debt burden now sits in aggregate over $2.3 trillion and is the largest debt in the nation. Corporate debt has, in contrast, been muted up until the last few years; total outstanding business debt is $1.218 trillion. Money creation, which we should understand as being the by-product of credit creation itself, has been greatly skewed and augmented by this 'debt shift' process.

Total private debt outstanding in Australia now totals over $3.7 trillion, excluding the shadow banking sector and other debt forms outside of public disclosure. The shadow banking sector — which includes credit originating from high-net worth families given to groups lending to property developers at higher rates of interest — is not generally well known. Shadow banking, while so far resilient to the higher level of interest rates, may become more vulnerable to crisis the longer that interest rates remain elevated. Indeed, there remains an ongoing concern amongst policymakers that the next crisis to stir will be in the shadow banking sector.[28]

The leverage in this sector is largely hidden from public view and any rush in redemption requests from worried investors could trigger a similar effect as would a bank run at a retail bank. The repercussions of this would be a panic of the elites and possible contagion to other parts of the financial system. In fact, several of Australia's largest private credit firms have had to make use of contract clauses allowing them to holt redemption requests from nervous investors.

The current use of credit by property investors is above historical norms. The first recorded levels of property investment debt in Australia grew rapidly, at over 40 per cent per annum from 1991. The introduction of home equity loans from the mid 1990s was a strong catalyst for investment loans to grow, as households could use their built-up equity in the family home to fund investment properties. Another catalyst was the reintroduction of the negative gearing scheme (1987), which supported loss making in exchange for the alluring promise of capital appreciation. Financial liberalisation continued to grow alongside rising credit demand, productivity rates soared, incomes rose, and tax policy remained supportive to property

[28] See: 'Shadow banks must come out of the shadows', The Editorial Board, *The Financial Times*, December 7, 2021.

investment. Property investment grew at a double-digit pace up until the GFC, but ever since, the expansion has slowed. In 2019, property investment credit contracted for the first time since the available data has distinguished between owner-occupier and investor debt.

Owner occupier credit growth was at its strongest in the mid-1990s, its growth reaching 20 per cent per annum (from a vastly larger base of existing debt), but it has also moderated since the GFC. At the close of the 1990/1991 recession, for every $6 of owner-occupier debt issued there was $1 of property investment debt. Today, the proportions have noticeably changed: for every $2 of outstanding owner-occupier debt, there is $1 of debt that is held in the form of property investment loans. Property investment, although dwarfed by owner-occupier debt, has become a significant part of overall credit creation.

In has been well reported that a large cohort of investors is leaving the property market due to the increased costs of property ownership. Whether these investors will be replaced by new property investors, only time will tell; the data so far remains scant. But one should expect overall property investment by the non-corporate sector to remain more subdued than in the past.

Mortgage debt itself doesn't need be a problem, but it is a fragile form of debt when used for speculation, or when people are trying to make up for declining (in real terms) incomes. On the other hand, both government and corporate debt, when utilised for productive purposes, are less fragile. When debt levels at the household sector reach more than a country's annual GDP, vulnerabilities are sown, waiting to be exposed. Poor productivity growth can often be a symptom of too much capital chasing the construction sector and the existing housing stock.

There are fewer places in the world that have a higher indebtedness than Australia's at the household level. The US's household sector never broke through the 100 per cent debt-to-GDP ratio, even prior to the GFC. However, Australia does have eerily similar numbers to those of Spain and Ireland before their property busts. Those countries have since gone on to drastically cut household debt-to-GDP ratios. The adjustments were long, painful ones, involving large credit write-downs, a period of de-leveraging, and government stimulus packages.

The epic credit creation in Australia due to the 'debt shift' has resulted in large-scale money creation in the private sector from property markets. The early entrants have often paid off debt (destroying money) while benefiting from newly created money (new loans) when they have gone on to sell property, such as investments and homes.

## MORAL HAZARD

There remains a simple idea that residential property loans are safe while commercial ones are risky. This is a key reason why the debt build-ups have occurred at the level of the household so readily. The opening up of credit markets to everyday people and households solved old political problems, at least in the short run, and perhaps softened the public's attention paid to wage and price disputes. In this view, credit can be used to make up for falling real wages, masking deep social inequalities. Credit allows people to maintain their purchasing power, at least for a while.[29]

But today, as debt burdens have grown so large, any debt crisis in the residential mortgage sector is simply too big not to derail the entire economy. Debt build-ups at the corporate level can provide for more stable footings and benefit the supply side of the economy as well as enhancing productivity, while non-productive debt, such as household debt, can act as an anchor on future growth.[30] [31]

The moral hazard problem is an old one and cuts deep in Australia. High household debt economies like Australia's are more at risk than most due to the composition of debt. 'Debt shift' has placed the debt burden on individuals as atomised agents, but the nature of the shared balance sheets between market actors, and the risk that this entails, due to much of Australia's household debt being concentrated in residential property, is that individual risk will be reorientated to the collective level should the property market start to fall in value in unison, and debts become unable to be serviced.

The individual has been courted to take part in great speculations, and very often it has been one's home that has been the vehicle. The marketing from banks and property companies is seductive, the track record of past property speculations has been profitable for many people, and Australia's staggering period of uninterrupted economic growth has helped paper over what could have been otherwise poor investments. The community is actively encouraged to tap out on credit: to speculate, to buy bigger houses, to overextend — to deviate from prudent financial behaviour. And these methods have worked, particularly during the low-for-long era (2009–2021) following on from the GFC. But when the boom can go no further, and the realisation sets in that the expectations people have for capital gains can no longer be met, at least to the same degree, future disappointments are inevitable.

The sharp increase in interest rates in 2022 and 2023 has yet to have its full economic effect, and the economy remains on a knife's edge. The RBA has consistently discussed the swift domestic pass-through from the higher interest rates on the economy due to the higher uptake of variable-rate mortgages here, in contrast to many other global peers. But the initial slowness from the RBA to increase interest rates earlier has made their job of limiting further inflation much more difficult.

The RBA was unable to react quickly enough to the initial bout of inflation for fears of causing an immediate recession and disrupting the banking system. This left the central bank in the much-cited position of being 'behind the curve' in lifting interest rates and has, in turn,

---

[29] Krippner, Greta R. 2010, *Capitalizing on crisis: the political origins of the rise of finance*, Harvard University Press Cambridge, Mass. Krippner's book covers this topic excellently.

[30] "The real effects of household debt in the short and long run". Marco Lombardi, Madhusudan Mohanty and Ilhyock Shim. BIS working paper No 607 January 2017.

[31] Japan, during its bubble peak, did have very high levels of corporate debt which unravelled into a bad outcome. The excess capacity in the supply side parts of Japan's economy from the overuse of corporate debt likely exacerbated the turn to deflation.

contributed to a weak Australian dollar. There may have also been the initial temptation by the bank to read the initial uptick in inflation as a welcome development, a way to nudge inflation 'back up to target', as inflation had been stubbornly low prior to the pandemic.

While any central bank will say that the careful calibration of inflation is their number one priority, it will always be trumped by financial stability concerns. There is a growing awareness in the community that the central bank or the government will step in to prop up financial markets at the first sign of falls to asset price. It is not uncommon to hear some people say, 'They won't let it happen' — and by 'they', people mean the RBA and/or the government. This belief has lured many people and corporations to take on large risks. In the US they call this the 'Fed Put'. No equivalent name exists in Australia, but the belief does. Thus, the build-up of risks takes shape across shared segments of the community in a mimetic way; initially this produces short-term stability at the expense of longer-term volatility.

Take a freeway as a metaphor. Few drivers drive at 100 kph. Instead, it's 103 or 104 or 102, as motorists push slightly above the limit to keep up with other motorists, and they slow down together as bridges approach to avoid any waiting speed cameras. Today's financial backdrop is akin to a freeway authority that issues only very small fines to drivers who speed. The drivers thus drive more quickly and may even hold the belief that the authority 'has their back'. The 'fine' of financial failure has been greatly softened compared with the past. ZIRP, QE, and forward guidance for extended low interest rates all play a part. Asset prices have surged on the back of this. We are closer now to departing that world of unrestrained central bank and government interventions, or at least the interventions that work for the benefit of most asset holders. The recent return to high inflation greatly complicates matters and makes any future stimulus programs difficult to implement.

## THE IMPORTANCE OF VARIATIONS

Anyone who swims in cold water rivers or oceans understands the importance of water temperature, especially the closer to zero that any stretch of water might be. A river that changes by 1 degree, from 5 to 4 degrees, experiences a 20 per cent fall in temperature, and this is usually perceptible to the swimmer. The ocean might change by 1 degree, from 21 to 20 degrees, but this change will be imperceptible. In both examples, the temperature has altered by 1 degree, yet the percentage change between the two states is vastly different. A similar logic can be applied to interest rates. The movement of interest rates when close to zero can amplify the existing financial conditions to a great extent. A 1 percentage point move when interest rates are at 2 per cent is a huge variation, compared with when interest rates are set at 10 per cent and change to 11 per cent. An even greater amplification to financial conditions is the movement and change to the real interest rate that prevails in the economy.

Interest rates can be referred to in both nominal and real terms. The nominal interest rate, sometimes known as the prime rate, can be the interest rate charged by commercial banks, or it can be the central bank rate, known as the 'cash rate'. The real interest rate is an inflation-adjusted rate, which can be calculated using the present inflation rate, but it's best calculated using the future expectation of inflation. The present expected rate of future inflation has only recently dropped below the current cash rate set by the RBA.[32] Therefore, the Australian economy has only just seemingly entered 'tight' financial conditions, and any talk of monetary easing by global central banks re-loosens them.

Negative real interest rates can be a boon for borrowers. Existing debt burdens are usually outpaced by wage growth and rising income on levered assets. And inflation has a history of eating away at existing debt burdens, inflating away part or most of the outstanding debt. Yet when inflation converges back to target, and the real interest rate turns positive, financial conditions become restrictive. The 'free lunch' that inflation usually serves to debt holders disappears.

Adam Smith knew very well the power of interest rates in determining the values of property. He wrote centuries ago that the difference in real estate values between France and England came down to the interest rate differential between the two nations (England had lower interest rates at the time of Smith's writings, and England had the more expensive property market).[33]

Most recently, David Miles and Victoria Monro, two researchers on behalf of the Bank of England (BoE), write that a sustained 1 per cent change in the real interest rate over the medium term, could expect to move house prices down by almost 20 per cent over a period of many years.[34] The other observation of Miles and Monro is that the fall in the real risk-free interest rate, as observed between 1985 and 2018, had more influence on the high property values in the UK than rising incomes had. The role of double income households is an important contributor to rising property values in the capital cities, but it takes a backseat to real interest rates and declining long-term bond yields.

## NOT SO RISK FREE?

Central banks manipulate asset prices through monetary policy. The setting of the short-term interest rate by a central bank is part of a tactical game in which the central bank seeks to influence the longer end of the yield curve and influence market-based interest rates. The central bank influences longer-term bond yields in several different ways: through the setting of interest rates, particularly its use of forward guidance; and at times by undertaking QE by taking duration out of the market, which the central bank does by buying bonds of varying durations to manipulate yields.

Two- and three-year Australian Government bonds are important bonds in terms of informing the market of what fixed-rate mortgages may be or begin to be, and the ten-year Australian Government Bond is an important benchmark to meet for any new investments. The duration of various government bonds instruments matter. Research carried out by Secret Agent has

---

[32] *The Economist* suggested a negative 'real' interest rate in Australia. "Which country will be last to escape inflation?" The Economist, May 27, 2024.

[33] *The Wealth of Nations*, Adam Smith, 1776. Chapter IV, "Of Stock Lent at Interest".

[34] Staff Working Paper No. 837 Bank of England. "UK house prices and three decades of decline in the risk-free real interest rate", David Miles, and Victoria Monro, 2019, p. 25.

also found the ten-year Australian Government Bond yield to be a reliable predictor of what mortgage rates are to be, eight months into the future.[35]

The risk-free rate is an important benchmark that is formed by financial market participants. The risk-free rate is an abstract concept: it is the rate of interest paid to the bearer of a particular financial instrument with (almost) no default risk. Sovereign bonds issued from advanced global economies, most notably US Treasury bonds, are the preferred choice for the setting of this rate.

Usually, investors require a ‘clearance’ above the risk-free rate, the risk premium, when contemplating investment opportunities that deviate from the safety of sovereign bonds. For longer duration bonds, a term premium is also commanded by investors. Term deposit rates and the common interest-bearing account from commercial banks can perform a similar function in forming the risk-free interest rate, particularly if depositors are protected by some form of state guarantee. Equity investment and property investments are scrutinised in financial models that discount future cashflows through an interest rate, either the risk-free interest rate, or the risk-free rate plus a ‘clearance’ to bring in a margin of safety. Again, usually it is the market-based yield of US Treasury bonds that is central to these calculations.

The US Treasury Ten-Year Note is the ultimate global risk-free rate. This bond is the most traded bond in global finance. It is highly valued for its deep, highly traded market bringing those that own it undeniable liquidity should they elect to sell it. Its widely agreed status as the ultimate safe asset makes it the linchpin of all global financial instruments, but this has not always been so.

Blue-chip corporate investment grade bonds and short-term government bills carried out the risk-free function in the past, but were replaced by the Ten-Year US Treasury Note in the 1990s. Many of today’s top investment managers rely upon the US Treasury Ten-Year Note, either partially or solely, as their preferred risk-free rate when they undertake investments. This was all fine when longer-term bond yields drifted lower after the GFC, but with yields on sovereign bonds now much higher than in the recent past, and a return to the almost zero per cent yields of the past looking unlikely to eventuate, those past investments made by investors are under strain to prove viable to meet the new risk-free interest rates that are obtainable to today’s investors.

When risk-free rate yields are driven up sharply, future cashflows from already existing investments need to grow rapidly to validate the investment decisions made in the past so valuations can hold. If cashflows cannot grow enough to meet the revised market hurdle rate, the investment or project value must fall to compensate future investors. Of course, people and firms can just ‘ride it out’ and hope for downward revisions to interest rates, but most projects have payoffs that are time bound. The more time that elapses from the spike in

[35] “The Yield Curve, The Secret Agent Report”, April 2016. In terms of prediction, over time, all methods like this are likely to break down. Of course, never make a financial decision based on this information.

interest rates, the more that financial projects will be under pressure to provide liquidity to investors.

The Ten-Year US Treasury Note yield surged to 5 per cent in 2023, pushed to levels not seen since prior to the GFC. The yield had dropped below 1 per cent during the pandemic; this was the tail end of a period sometimes referred to 'zero-gravity' finance (2009–2021). Money poured into cryptocurrencies, meme stocks, venture capital and real estate. Since the GFC, the US Treasury Ten-Year Note yield has commonly hovered around 2 per cent.

## AUSTRALIA'S OWN RISK-FREE RATE

The Australian Ten-Year Government Bond is a local proxy to a domestic risk-free rate for Australian investors considering investment opportunities. Australian sovereign bonds had been low yielding for almost a decade. At its nadir during the pandemic, the Ten-Year Australian Government Bond yield fell below 0.6 per cent. During the boom property years of 2020 and 2021, the yield on the Australian Ten-year bond rarely broke over 2 per cent, until the latter part of 2021.

In other global markets, numerous long-dated sovereign bonds even went into negative territory. Over time, professional local investors had been conditioned to sticking with the sovereign bond as the right proxy for the risk-free rate when carrying out investment analysis, especially when undertaking commercial property investments and residential developments. Many long-term property investments were made during the low-for-long era (2009–2021) using historically low sovereign bond yields, and, furthermore, in many cases the risk premium was also greatly condensed.

A simple illustration of how a commercial building's value can be altered by a risk-free rate is as follows. Suppose a commercial building is to return $75,000 net (rent, less outgoings) to an investor who is now looking to sell. An interested investors (i.e., the potential purchaser) might have been prepared to acquire the building on a 3 per cent net yield during the tail end of the low-for-long era (2009–2021).[36] That 3 per cent yield would have equated to a purchase price of $2.5 million.[37] But the risk-free rate has undergone significant change. The Australia Ten-Year Government Bond now yields more than 4 per cent, and this rate has held constant in 2024, as well as throughout much of 2022 and 2023. A 5 per cent yield on the Ten-year bond was even reached for a short period. The 'risk-free' rate of return has jumped. Any prudent investor will also likely require a margin of safety from any potential property investment to compensate them for the added risk of property investment, which deviates from the safety of government bonds. This margin of safety is to be found in the financial yield produced (or to

[36] In Australia's case, it was the later part of the low-for-long period (2009–2021) that was most problematic, as local rate cuts were not as aggressive as those that occurred in the US in response to the 2008 GFC. Yet, US monetary policy spreads itself globally, so easier financial conditions did spread to Australia.

[37] To keep things simple, I have avoided using stamp duty in calculations and other costs. To factor in such costs would be more prudent, but I have often found that many marginal buyers often don't apply these costs into their calculations as strictly as one would expect.

be produced) by any building. A small change to the expected yield of a building can alter the property value heavily.

The marginal buyer today is unlikely to take on a building at a yield that is below the risk-free rate. The investor from the above example may now need to sell her building on a 5 per cent yield to secure the marginal buyer. The differences in value between a building yielding 3 per cent and 5 per cent is substantial. The $75,000 of net income provided from the building sold on a 5 per cent yield would equate to a sale price of $1.5m — that would be more than a $1 million dollar loss to any investor who purchased a building at a 3 per cent yield and who had sold for 5 per cent.[38] For a real-world example of a large property fall, the Australian Unity Office Fund recently sold an office tower in Brisbane for $64.5, for which it had paid $106 million in 2017.[39] There are many more such examples of these types of loss-making transactions taking place around the country.

## NEW REGIME, NEW YIELDS?

Prior to the pandemic, it was not unusual to witness a retail building with a high-quality tenant offered for sale and being sold at yields of 2.5 per cent or so, especially at the height of the commercial property boom.

For now, the stock levels of commercial properties remain low, and supply is still constrained. Many late-to-the-party commercial property owners are reluctant to take losses, while other landlords simply want yesterday's prices, so the end market values will take years to adjust. The new approximate cap rates and yields to emerge for commercial property markets are yet to be fully formed due to the volatility of bond yields, interest rates and the post-pandemic changes to the nature of work and consumption.[40]

It might be that future yields demanded by the marginal buyer will revert to 4 or 5 per cent for specific commercial properties, but should the yields demanded by the next crop of investors and occupiers be even higher — say, yields of 6, 7 or even 8 per cent — the further fall in value of many commercial properties could be very large indeed.

---

[38] Different valuation methods are possible. For example, some investors may perform their investment calculations from simply obtaining a percentage yield proportional to the value of the building and not the land value. The land is instead treated as something that will grow with the growth of the city, to meet 'unforeseen' future uses.

[39] ASX Announcement — Australian Unity Office Fund, Sale of 150 Charlotte Street, Brisbane. April 18, 2024.

[40] The 'cap rate' (capitalisation rate) is an externally generated percentage that is calculated by dividing a property's net operating income by its current asset value. The net yield to an investor is often a different yield and varies from person to person (or firm to firm). It might consider stamp duty, an individual's tax situation, management fees, borrowing costs, etc. Yield and the cap rate can be the same, or similar, percentage when 'net' is removed from the calculation, and a building has sold recently which provides the current asset value. A building owner may calculate a gross yield based on what they paid for the asset at the time but on today's rents, or they may determine the cap rate based on the expected current asset value and the current rent. The point is that sometimes these terms can be used interchangeably, and other times they cannot.

The office market property sector has so far been foremost in the firing line. Industrial property has been more robust, due to people's ongoing shift to online shopping models of consumption, which has resulted in fewer shopfront customer interactions and more operators using warehouses and delivery to reach customers. But tenanted industrial property assets will still feel the strain of higher rates, as their property values increased most dramatically during the pandemic years.

Property can generate strong cashflows in a high-inflation environment.[41] Commercial property leases usually have Consumer Price Index (CPI) linked annual rent increases inked into them. This can protect a commercial building's value against rising interest rates and is especially important for buildings considered tenanted investments. The value of pre-existing building structures can also rise sharply when an economy is undergoing high inflation, as it is today, as replacement costs to build have recently risen sharply and are now much higher than they were prior to the pandemic.

Yet it is a double-edged sword; if a commercial building requires capital investment (and this applies to residential housing as well), which is not uncommon for many older buildings, which are often run down, the costs to repair them can be expected to be very high, and this in turn undermines the value of existing building structures. Numerous building structures are being discounted by investors and potential homebuyers as a result, as the unimproved property has gone from a desired object to an unwanted one.

When interest rates rise sharply, beyond expectations, the future cashflows from property investments are discounted at a faster rate than the present cashflows can grow, resulting in balance sheet write-downs to asset holders. And the losses for those who have contributed to the financing of such buildings, now falling in value, such as commercial banks, shadow banks and private investors, could ripple through to the rest of the economy.

The residential property market has so far been resilient for those collecting rent. In the present inflationary environment, rents have been robust, and vacancy rates remain low. The shortage of dwellings at the affordable end of the residential market has been well documented. The recent rapid increase in residential rents has been used as justification for residential property assets holding up in value, but for many highly levered investors, the financial accounting is still poor.

Many residential property investments have taken a financial hit in real terms. Inflation has added further burdens to investors beyond rising mortgage costs, such as costly property repairs and general maintenance, and the usual property fees, taxes, council rates, owners corporation fees, and land tax have all swollen. Rising rents can only assist property owners to a certain extent when borrowing costs have risen by as much as they have.

---

[41] Strangely, and contrary to media reports, it is not uncommon to see the reverse situation taking hold. Properties that are rolling off fixed long-term leases are having to make rent reductions. This is particularly the case with some office space as well as some retail buildings.

Germany is a leading example of a troubled housing market. Even with fast rising rents, the property market has produced two solid years of decline. Property prices fell heavily and there is great uncertainty over whether property markets there have found a floor or have further to go.[42] Germany had some of the lowest yielding sovereign bonds in the globe prior to the pandemic, and this was likely a key driver of its property market going through such a heated phase in the leadup to this slump. The risk-free rate investment method based on extremely low government bond yields was, in hindsight, a mistake, and asset markets, not just in Germany but all other jurisdictions, could be impacted for the decade to come.

A former managing director of BlackRock, Peter R Fisher, writes:

> While we enjoyed the disinflationary trend, in a bit of muddled thinking, long-dated sovereign bonds slipped into our vocabulary as being "risk free" – perhaps because they provided the even-better-yielding risk-free total return bonanza as rates consistently declined. Now bankers and investors are waking up from the long bull-run in interest rates to the awkward reality of more risk and less return than they have been accustomed to and to the recognition that long-dated sovereign bonds are not a good proxy for the risk-free rate.[43]

### FIRST, INTEREST RATE RISK; SECOND, CREDIT RISK

The return to higher interest rates, which has now hit financial markets, has two distinct phases of risk. One phase is at its tail end, and the other is yet to fully arrive. Interest rate risk was first, which is the ability of the financial system to absorb the losses from the financial instruments, such as bonds and corporate debt, now heavily devalued from their pre-pandemic value due to the higher interest rates and revised risk-free rates. So far so good — the financial system has performed well in this regard, apart from the odd casualty.

The failure of Silicon Valley Bank (SVB) in March 2023 confirmed that supposedly 'safe' long-term US treasuries are perhaps not so safe. SVB Bank held a higher number of US Treasuries on its balance sheet and was forced to liquidate them at great loss to meet redemption requests from flighty depositors. The bank used little in the way of hedging techniques to limit its exposure to long-term bond holdings and had a client base that was composed of mostly uninsured depositors; many had herd-like tendencies to 'run'. And run they did.[44]

There have also been the failures of some smaller US banks, Signature Bank and First Republic Bank. In Europe, there was the failure of Credit Suisse, a 167-year-old institution, which failed in 72 hours, as well as numerous cryptocurrency companies, many of which crashed spectacularly in the early stages of the 2022 US Federal Reserve tightening cycle.

---

[42] "German landlord TAG warns home prices could fall 30% from peak", John O'Donnell, Tom Sims and Matthias Inverardi, Reuters, February 8, 2024. Germany had an extended period of negative real-interest rates prior to and during the pandemic. The shock is perhaps more acute in Germany because of the change in real interest rates as well as the European energy crisis.

[43] "Reflections on the meaning of 'risk free'" BIS paper 721, Peter R Fisher.

[44] "SVB's collapse exposes the huge carry trade problem", Gillian Tett, Financial Times, March 17, 2023.

The US Federal Reserve, heeding the lessons learnt from past tightening cycles, backstopped the entire financial system. The failure of Silicon Valley Bank and the subsequent protection of depositors has led to a belief among the public that all bank deposits are guaranteed by the US Federal Reserve, and this is probably also true in other global economies.

Sovereign bonds had been taken to be risk-free. The Basel regulatory framework recommended banking standards which helped set minimum capital requirements for commercial banks and assigned a zero-risk weighting to banks for the holding of government bonds. Both the regulatory bodies and market participants had operated under the belief that sovereign bonds were 'safe' — the ultimate instrument with which to compare all other investment decisions.

But as it has so far turned out, sovereign bonds, especially long-dated ones, are especially vulnerable to capital losses in a rising interest rate environment.[45] In the low-for-long era (2009–2021), declining interest rates resulted in large capital gains for those who owned the longer duration bonds. Capital gains were replaced by capital losses as bond yields shot up.

We are now embarking on the second phase. This is the credit risk stage and will involve looming losses, due to the lags from the vastly higher interest rates and depletion of pandemic savings. Central banks retain a brake on economic activity and the employment market is only very slowly being affected by it. Monetary policy operates with the notorious 'lags' and the still-robust global economy will not stop the occurrence of credit losses. If anything, the present time is just a period of delay. The credit losses will happen. The movement in interest rates has been too sharp, and global economies are slowing down, as they have been designed to do. The question is not if it will happen, but how large the credit losses will be.

The irony here is that the most successful investors over the past decade have likely been the ones who used sovereign bonds to calculate an appropriate risk-free rate when undertaking their investment activities. Many big corporate entities have been known to use low-risk free rates to obtain commercial properties during the boom. The big superannuation funds and publicly listed property trusts (REITs) are still to confront many dilemmas from their holdings of large portfolios of overpaid-for properties acquired at the peak of the boom. Mark-to-market accounting is still in many instances not accurately reflecting present property values. Portfolios with holdings of commercial offices have been hard hit, and many commercial properties that are yield driven, and subject to interest rate risk, are likely to have further to fall.

The halting of redemption requests by some large institutions to 'bail-in' flighty investors has been troubling.[46] Over time, more property assets will be forced to clear under the new

---

[45] When bond yields rise, the value of bonds decline. When bond yields fall, their value rises.

[46] "Blackstone fund keeps limits on outflows as redemption requests fall", *Financial Times*, Antoine Gara and Joshua Oliver, March 2, 2023.

higher-yield regime. Should longer-term bond and corporate bond yields drift higher still, the commercial property market — especially the office market — faces further price falls.

The unemployment situation will also be a key for office markets.  And while inflation is usually seen to increase rents, this is no universal truth. Numerous office building owners are grappling with rising vacancy rates and declining rents, all at the same time. The combination of rent falls, increased vacancy, and higher yields demanded by tomorrow's marginal buyers is a most uncomfortable situation for any over-leveraged building owner.

## LOW YIELDS, LOW DISCOUNT RATES

The structure of the Australian residential housing market is one dominated by small-operator people and groups. 'Risk-free rates' are unlikely used by small investors for residential property. It is the prospects for capital growth that drive much of these markets. Beneficial tax concessions, such as negative gearing, depreciation, and capital gains exemptions, all nourish the end objective: capital growth. Most residential investments are not carefully scrutinised by the yield on offer, but rather, any increases in rents follows on from the investments made. Justifying the initial investments takes years to come about.

The desired returns of much domestic property investment are still in balance. The interest on savings accounts is one visible source of comparison, distinguishing those between rents received from any property option and bank interest paid on savings. Dividends from shares are another source, but due to the past market being so favourable to residential property investment, one's 'borrowing power' has been crucial.

Belief is a further key ingredient in all domestic residential property investments, as low yields must be offset by the lucrative prospects of strong capital growth or future surging rents. Yields of 2 to 2.5 per cent net for houses can still be witnessed within many inner-city locations in Australia, while apartment investments fair a little better, with yields often between 3.5 to 4 per cent, which can still be had for apartments that have some owner-occupiable features. Investors are banking on high levels of capital growth to persist, like those of the recent past, to make up for overall poor returns. This is a marketplace shaped by speculation, not one that allows investments to stand on their own legs. In most instances, many of today's high prices do not make for attractive investment.

## LAND PRICES REMAIN MOST UNDER THREAT

Land values are most hypersensitive to discount rates. Few things are discounted out into distant futures like land. The value of land should be cut in two when the interest rate doubles on land with a steady cashflow. Add the whiff of a speculative infrastructure project due to benefit a piece of land into the initial financial model, and the loss can be greater than half. Land values are the values most prone to becoming 'unanchored' during boom periods. Building values are more straightforward in comparison. During the long upward surge in land values, land gravitates to the financially strong, but also to those psychologically susceptible to the trend of rising land prices — and the latter are most at risk to the incoming downturn.

It is those people who ventured far from the city centres to bank land who are usually the first to fall, along with those who purchased land sites that have the most difficult building challenges: for example, flood zones, contamination, slopes, and land sites with poor access. Profits are now being redirected from the boom times to service higher interest rate charges on much unsaleable land. There is always the tendency to believe the next boom is 'just over the horizon', encouraging a 'wait and see' mentality. The post-pandemic increases in the cost of building add to the conundrums for land holders looking to value-add to land.

The future path of the RBA cash rate is only one factor in determining the future trajectory of the housing market. Irrespective of the RBA, the real interest rate is rising. And the prime rate of interest charged by the commercial banks may have limited capacity to drop when the cash rate inevitably drifts further downward. The banks are subject to flighty wholesale funding markets, and twitchy retail depositors, many of whom are now accustomed to receiving high interest on spare capital. Interest rate passthrough to mortgage holders could be rather limited should interest rates be cut. The highly leveraged may have little in the way of relief. The speculators dealing with impatient mezzanine finance providers, and other private capital providers, are left dangling due to the higher cost of capital.

The availability of credit can often be more important than the interest rate itself. Booms are often ended by a credit crunch rather than higher interest rates. There is a long history of boom-and-bust cycles, and of credit expanding again at every perceived peak of the interest rate. Market actors attempt to 'get in' by purchasing a financial asset with credit before the 'inevitable' interest rate cuts come, to be 'forward-looking' and to acquire assets before they are perceived to go up in value again due to future lower interest rates. This re-loosens financial conditions, allowing inflation to re-gather steam, leading to higher interest rates down the road or, at least, higher interest rates for longer. Inflation can come and go in waves.

Returning to cold-water swimmers. The 'after-drop' is the state when the body feels the greatest effects of a period of sustained cold-water immersion. This usually happens once the swimmer has left the water; this is the most dangerous time. Property is a slow asset; it moves at glacial speed compared with equities or bonds. The large dislocations from QE and the low-for-long era (2009–2021) have stretched investment horizons deep out into the future. Principal loan totals for property assets have swollen to eye-watering levels.

As more time elapses after the boom years, and the cash reserves from stimulus programs further deplete, property valuations will find a new level. Should longer-term bond yields keep rising and settle even higher, borrowing costs and risk-free rates will continue to be transformed. And should risk-free rates based on sovereign bonds be abandoned altogether, and the return to corporate bonds or some other yardstick takes their place, property values will have even further headwinds to confront.[47]

[47] It's always possible that property yields could become the risk-free rate should other financial instruments lose their credibility, e.g., sovereign bonds or corporate ones. But this would imply a rather significant economic fallout.

## THE RETURN OF INFLATION

High inflation is comparable to a slow-moving financial crisis. It slowly lowers living standards and forces economic aspirations to be recast or put on hold.

Inflation shrinks community purchasing power and savings. People's wages often lag behind the sharp price rises of goods and services, making them poorer. The long-term planning of households, businesses and governments become constrained. Australia has recently experienced its highest rate of inflation in more than three decades.[48] Inflation, at least for many people in advanced economies, was considered to have been expunged from the economic system, rather than lying latent within it and ready to re-emerge. The great hibernation of inflation has ended, and the community is having to adjust to its pernicious effects.

The setting of interest rates is the primary tool used by a central bank to bring inflation to heel. The actual effectiveness of using interest rates to control inflation remains heavily contested in public discourse. Many media commentators have advocated for using measures other than lifting interest rates to reduce the level of inflation and help return to price stability. The RBA is tasked with the unpopular job of lowering demand in the economy, slowing down spending and credit growth, and increasing unemployment, so that wage settings in the economy can be 'better balanced'. The RBA claims to have independence from political influence, so that it can make the tough decisions for which the government lacks the appetite. But nothing can exist that is truly outside the political frame, even central banks and their much-heralded independence.

To attempt to make any accurate predictions on the future of inflation is futile. The global and domestic factors in play that will determine the inflation to come are simply too complex; even the greatest economic minds disagree about its future trajectory. But what we do know is that, once a high inflationary environment takes root within an economy, it can be extremely hard to abate without incurring large social costs. The Bank of England has shown in a long-term study spanning over five centuries that, when core inflation (inflation stripped of the volatile food and energy categories) in developed markets exceeded 5 per cent for more than 12 months, core inflation has only once come back to 2 per cent within ten years. This is from over 500 years of data.

[48] "Inflation and Recent Economic Data", RBA, Phillip Lowe, March 8, 2023.

TRANSITION POINT?

The BIS detail a two-regime view of inflation with transition points between regimes.[49] First is the low-inflation regime that people were accustomed to prior to the pandemic. The conditions of the regime here are ones of self-equalising properties. Any deviations from the central bank inflation target don't change community behaviour, or if they do, only slightly, and the central bank remains credible. Second is the high-inflation regime. Here, general price settings are dominated by prices chasing prices and the much-mooted wage–price spiral sets in. The self-equalising properties from the low inflation regime are gone. The community notices price changes most acutely and the changes to prices and wages act as a coordinating device.

Transition points exist between the low inflation regime and the high inflation regime, which are self-reinforcing shift states between the regimes. Once a transition point becomes active, especially the transition from a low to a high inflation regime, it is extremely difficult to stop, but still much less difficult than bearing the costs of ending a high-inflation regime. The end of the high inflation regime often requires a large recession. In the past, this was achieved by central banks using very high interest rates to squeeze an economy.

Central banks are navigating extremely foggy terrain. There remains great discussion as to whether today's moment in time marks a transition point between regimes, or whether the 2022 and 2023 surge in inflation is simply a temporary phenomenon.

The initial burst of global inflation was misread as 'transitory' by the Federal Reserve; therefore, most central banks acted late, and were forced to play catch up. The exception was the Latin American central banks. The Latin American banks, which have had numerous experiences with high inflation in their histories, lifted interest rates aggressively and much earlier than the Federal Reserve or other central banks. So far, the Latin American countries have had the most success in restoring price stability, as well as being able to stabilise their own domestic currencies against the US dollar. Many of the Latin American central banks are further along in reducing interest rates, likely because of these initial decisive actions.

Yet, irrespective of any country's domestic interest rate policy, there is a global interest rate that impacts all countries who import and export and therefore are likely to use US dollars, the global economy's reserve currency, and this is set by the US Federal Reserve. The US Federal Reserve increased interest rates sharply after inflation was initially misread as 'transitory', and all other advanced economies' central banks, including Australia's, followed hot on their heels. The global central banks are not only trying to return inflation to their mandated inflation targets, but also trying to limit the fallout of large currency depreciations caused by the still-

[49] "The two-regime view of inflation", Bank for International Settlements. Claudio Borio, Marco Jacopo Lombardi, James Yetman and Egon Zakrajsek, March 20, 2023.

strong US dollar. Many central banks, including Australia's RBA, have sought a slow return to the inflation target.

## INFLATION-TARGETING REGIMES

Inflation-targeting methods were pioneered in New Zealand from the late 1980s. The introduction of inflation targeting in Australia commenced in the early 1990s under Bernie Fraser, the then-governor of the RBA. In Australia's case, the policy objective was to deliver an annual inflation rate of between 2 and 3 per cent over time, now more closely defined in the middle of this range. By adhering to a mandated inflation target, a central bank, such as the RBA, can raise or lower interest rates using simple, objective criteria, by employing the CPI measurement (among other measurements) to conduct monetary policy.

The inflation-targeting regime also helped the central bank to appear apolitical. The distribution of wealth across a community is substantially altered by the adjustments made to interest rates and this can lead to political backlash. The expected benefits of operating an inflation-targeting regime were that it would build central credibility, and that inflation expectations in the community would remain well 'anchored'.

The memories in the community of the high inflation periods of the 1970s and 1980s were still fresh at the time of the introduction of these inflation-targeting methods. The perceptions of success of an inflation-targeting central bank grew as inflation was held at bay across the advanced economies. Whether this was good policy, or simply good luck, is now being questioned. The mandated inflation targets set for global central banks not only guide central bank action for inflation above target, but also for when inflation is low and below target.

In the aftermath of the GFC, many central bank policymakers globally were alert to and concerned about the idea of deflation permeating into their own economies. Deflation was the most debated topic in the central banking fraternity, more than inflation. Inflation was commonly undershooting most central bank mandated inflation targets. It was a Japan-type situation that worried policymakers most. Up until only recently, the Japanese central bank had been attempting to fend off the chronic deflation that Japan experienced from its 1990s property and stock market collapse.

The key concern of the central banks about deflation is that it encourages the community to defer consumption, which is highly problematic for consumer-based economies. Deflation can be self-reinforcing and extremely hard to exit — something Japan found out the hard way. The typical modern deflation scenario is one in which consumers, in unison, delay their purchasing today for the expectations of falling prices tomorrow; yet, when tomorrow arrives, prices are lower still, so people then wait for the next day, in the hope of further reduced prices, and so on.

The most troubling form of deflation is a debt-deflation scenario. This is where real debt burdens in the community grow. Both falling wages and revenues for everyday people and businesses in the community are required to service high debt burdens, which were created from yesterday's higher asset values, based on the higher wages and revenues that were used to service the initial debt creation. Equity stakes in financial assets lose value and debt-servicing costs take up a greater share of both wages and revenues. Irving Fisher said it most aptly when he said, “The more one saves, the more they owe”. At the aggregate level, one person’s spending is another person’s income, and a synchronised deleveraging erodes income across the community.

The economist John Keynes, after living through the Great Depression, wrote, “Modern capitalism is faced, in my belief, with the choice between finding some way to increase money values towards their former figure, or seeing widespread insolvencies and defaults and the collapse of a large part of the financial structure”.[50]

This is one of the most important insights into modern macroeconomic thought today. Policymakers have a strong bias towards ensuring that, once certain prices and asset values are reached, they are at least to be maintained, to limit any future default cycle. There is the overwhelming tendency for policymakers to prefer creating just a little bit of inflation, to ward off any looming period of deflation. This is one key reason why an inflation target is never set to zero.

## DEFLATION RISKS STILL LOOM

Australia has had numerous episodes of deflation, but it has been uncommon to have a deflationary economy since World War II, and especially since the departure from the gold standard and the Bretton Woods based financial system in 1971. Inflation has been far more common, but Japan has proved be a leading example of the possibility of deflation. Global policymakers, especially in Europe and the US, were besieged in the aftermath of the GFC to do more to stop the Japanese deflation experience from gathering steam in their own economies. But concerns about looming deflation — the deflation bogeyman — were misplaced.[51]

The deflationary period post the GFC for many advanced economies was in retrospect a benign deflation. The golden era of falling prices on most consumer staples — cars, electronics, white goods, clothing, everyday household items, etc. — was unlikely to tip the Western consumer into the dreaded deflationary spiral. It was perhaps even a welcome development, if we discount the environmental costs from overproduction and pollution.

The globalisation of supply chains and China’s manufacturing prowess reduced the cost of global goods. Yet, the explosion of debt to ward off the feared deflation that has resulted, in part by lowering interest rates and implementing unconventional monetary policy, may have inadvertently opened the door to bad deflation down the road. There remains a non-trivial risk that any future asset price reversal could be so severe that a form of debt-deflation could still take hold. Asset prices, especially property prices, rose sharply after the GFC, and debt levels piled on.

---

[50] *The consequences to the banks of the collapse of money values* (Aug. 1931), John Maynard Keynes.

[51] “The deflation bogeyman”, Martin Feldstein, February 28, 2015.

China, after an extreme build-up of debt in the real estate sector, has now seemingly entered the early stages of a debt-deflation era, yet it may have a wider array of political tools to address the deflation challenge, which are not open to western democracies. The tools used by central banks after the GFC to ward off the looming deflation threat were numerous. The US Federal Reserve and the European Central Bank (ECB) undertook aggressive monetary policy interventions. The tools of choice were QE, which took duration out of the market, as central banks held down longer-term bond yields, as well as the low-for-long era (2009–2021) interest rate settings, and 'market supportive' forward guidance — all combining to skew risk premia for most financial assets.

There was also a general reluctance from central banks towards the appreciation of their own domestic exchange rates. In the global competition of free trade, countries gravitate to the trading partners that can supply well-priced goods, services, and commodities. Many global central banks courted a lower domestic exchange rate to help their country's exporting sectors, which compete globally and provide the materials and labour that global markets crave. A high and strong domestic currency was thought to weaken any country's domestic export sector, as well as reducing the price of imports, leading to further falling prices in CPI baskets, leading to the perception of deflation permeating within an economy that did not try to counter this through manipulating the exchange rate channel. A central bank that has a lower domestic interest rate is likely to preside over a weaker domestic currency than it would if it ran a tight interest rate policy.

However, there were diminishing returns during this phase of monetary policy implementation. Short-term benefits could perhaps be reaped by the lowering of interest rates, thereby putting downward pressure on the nation's exchange rate, so the export sector was free to boom. A central bank could get closer to its mandated inflation target, too, as any currency devaluation imported a bit of inflation back into its CPI measurement: a small win for a central bank trying to 'nudge' inflation up to target. While at the same time, a domestic asset boom would be sown, as lower interest rates increased asset values and credit usage, particularly to residential property markets. And rising property prices are not captured directly by CPI measurements.

International capital flows surged to jurisdictions presiding not just over a high interest rate, seeking safety and returns, but to countries that had weakened exchange rates and therefore had lower relative property values. This was especially the case for countries that have strong property rights; the flight of Chinese capital to safe havens such as Australia, Canada, New Zealand, and the UK is a leading example.

The early gains achieved from a weakened exchange rate for a country were nullified, however, once other countries' central banks responded by also lowering their own domestic policy rate, which then flowed back into global exchange rates. An easing bias spread across global central banks, with low interest rates begetting further low rates.

The financial system is a global system with the US monetary system at its core. The US dollar is its linchpin and is involved in about 90 per cent of all foreign exchange transactions.[52] No central bank can ignore the outsized role that US monetary policy plays in financial markets.

## REACTIVE VS PROACTIVE MONETARY POLICY

After the 2008 GFC, US monetary policy took on an expansionary bias. Interest rates were dropped to zero as American consumers deleveraged in the wake of the GFC and aggregate demand was weak. The large-scale quantitative easing policies that were undertaken during the low-for-long era (2009–2021) devalued the US dollar. This in turn put upward pressure on other advanced economies' currencies, encouraging each central bank to cut their own domestic interest rate, and to experiment with unconventional monetary policies.

The global central banks, including the RBA, are now engaged in the opposite policy response. Exchange rate appreciation is being courted as protection against the still resurgent US dollar and to limit the level of inflation drifting back into local CPI measurements. A higher cash rate, slightly hawkish forward guidance, and quantitative tightening (QT) are all being deployed by global central banks, to protect their domestic currencies against the US dollar, but also against the other global currencies based on their trade-weighted importance, too.[53] The policy goal of central banks in the 2010s to engineer 'just a little bit of inflation' has been abandoned.

One legacy from the implementation of inflation-targeting methods has been the limited attention paid to credit aggregates and the build-up of private debt imbalances caused by high asset prices, especially property prices. The economist Charles Goodhart, in 1995, advocated for a broader definition of price stability, one in which asset prices such as house prices would be included together with the usual CPI indexes in the setting of interest rates.

A long running debate in the intellectual central bank community was whether to follow a proactive monetary policy approach or a reactive one. The ideological ground between proactive and reactive monetary policy was won by influential economists such as Ben Bernanke, the former Federal Reserve chairman, who advocated for the reactive policy approach, thereby leaving rising asset prices out of monetary policy decisions concerning interest rates.

The reactive approach is one in which liquidity is injected ex-post into the financial system, rather than one that undertakes preventive measures to avoid incoming busts. The former BoE Governor, Mervyn King, stated after the GFC, "We have not targeted those things which we

---

[52] "Revisiting the international role of the US dollar", *BIS Quarterly Review*, Bafundi Maronoti, December 2022.
[53] Interest rates don't work in a linear way, however. Sometimes a country will push up interest rates and their currency may still fall; this happened when Japan lifted interest rates for the first time in 17 years. But for the type of monetary policy thinking more akin to the RBA, albeit more explicit, see Sweden's central bank: More rate hikes on way as Swedish cbank says wants stronger currency, Reuters, February 9, 2023.

ought to have targeted and we have targeted those things which we ought not to have targeted, and there is no health in the economy".[54]

The global central banks largely ignored surging asset values in the setting of interest rates prior to the 2008 GFC. The spillover effects from rising asset values would only indirectly contaminate CPI baskets. Credit creation, indebtedness, and surging asset prices can build up over long periods, before they eventually contaminate the various CPI measurements.

In booms, for long stretches of time everything can seem to be going 'right' for an economy under a reactive monetary policy regime. Yet, under the surface, the financial imbalances take shape, creating the vulnerabilities, and the contingent liabilities, waiting to be exposed in the distant future, either by an external event or by an endogenous process coming to its end. The period of perceived stability is simply the build-up of the problems, which, paradoxically, reduces short-term risks in the economy as new asset valuations are further supported and help validate new financial structures. The interconnectedness of balance sheets across the community propels both people and groups to greater risk-taking, as well as financial institutions, and central banks are under immense political pressure to keep the party going, by using measures such as keeping interest rates low.

Under a reactive approach, central banks are forced to act late and play catchup. Charles Goodhart writes:

> A successful smoothing of cycles in asset and credit markets ... may only be possible if monetary policy acts before an upswing has turned into a boom. But exactly when this is the case is almost impossible to tell ex ante. Such a policy may also involve interest rate hikes in times of low or falling headline inflation rates, which will prove to be difficult for a central bank to justify either to the public or to politicians.[55]

The idea that Phillip Lowe, the former RBA Governor, could raise interest rates during his tenure because inflation was undershooting the target was not a political reality. If monetary policy decisions had been made using the proactive method, rising asset prices, especially property prices, could have been tackled head-on before inflation showed up, and limit the financial imbalances from becoming too large. Goodhart's law ("When a measure becomes a target, it ceases to be a good measure") was mostly ignored.

What seems now the smarter way to run is that central banks should have accepted a longer period of presiding over strong domestic currencies; perhaps they should have managed their capital account, considered capital controls, and pushed more firmly on the domestic imbalances piling up by leaning against the boom more heavily.

---

[54] "Strict inflation targets for central banks have caused economic harm", *Financial Times*, July 25, 2022.

[55] Goodhart C, Hofmann B. "Deflation, Credit, and Asset Prices", in Burdekin RCK, Siklos PL, eds. *Deflation: Current and Historical Perspectives.* Studies in Macroeconomic History. Cambridge University Press; 2004, pp. 166–188.

## THE RECEDING OF INFLATION

Global inflation has since moderated and is drifting down to respective global targets, and in many cases, it has already returned to those targets. The so-called 'last mile' of disinflation remains the hardest part, with many commentators urging central banks not to crush their economies in their haste to hit their inflation target. The messaging from the US Federal Reserve seems to suggest they are sensitive to the idea of creating a 'hard landing' from running tight policy for too long.

The risks remain that financial markets could be surprised by the resilience of inflation. Central banks could be forced to raise interest rates again or hold to a tight policy for much longer than present expectations suggest.

The prospect of future inflation is impossible to know with any certainty. Is it clear that in the short term, the domestic interest rate setting in Australia will largely be dependent on the rate of inflation as picked up by the CPI measurement, as well as wage growth, employment outcomes, US monetary policy and its impacts on the Australian dollar, as well as productivity growth and government spending. There has been a preference among central banks to find a more gradual path back to their mandated inflation targets. The risk for central banks, especially the RBA, is that they could lose credibility by allowing the process to go on for too long, and allow inflation expectations to drift higher. But the risk is double-sided; with real interest rates now much higher, financial conditions could prove to be too tight.

The natural rate of interest or r-star (r*) — an unobservable real short-term interest rate at which monetary policy is neither contractionary nor expansionary (output is at potential and inflation is stable) — is now thought to be at least slightly higher than in the recent past.[56] So interest rates, at least the real rate of interest, may not settle back down to levels that people have been accustomed to over the past decades. However, while some economists treat r-star with almost religious zeal, others see its calculation as circular — the monetary policy regime itself interacting with and altering the natural rate of interest — and, for this reason, r-star should only loosely be relied upon.[57] [58]

Real global interest rates have trended persistently downwards over the past forty years. In comprehensive long-term research, the economist Paul Schmelzing has shown that real interest rates have been falling for 800 years.[59] His research shows global real rates exhibiting a gentle but firm downward trend over time, but it may be that, since the GFC and its aftermath, real interest rates adjusted too far downwards. A trend in falling real interest rates is likely to persist, perhaps over the longer term, but not at the levels we have become

---

[56] Harvard professor Ken Rogoff: "I think real interest rates are going to stay high", CNBC, May 31, 2023.
[57] "The Neutral Rate: The Pole-star Casts Faint Light", Luci Ellis, Sydney – 12 October 2022. An example of the almost biblical-type rhetoric used when discussing r-star.
[58] "Navigating by r*: safe or hazardous?" BIS Working Papers, Claudio Borio, 25 November 2021.
[59] "Eight centuries of global real interest rates, R-G, and the 'suprasecular' decline", 1311–2018, Paul Schmelzing, 2020.

accustomed to over the past few decades. A rise in real interest rates is more likely in the short term, and nominal economic growth rates are also likely to drift downwards. This makes the erosion of debt burdens through both growth and inflation less likely.

### THE 'GOOD' DISINFLATION ERA

Coinciding with the early 1990s inflation-targeting central bank regimes was the tremendous expansion of the world economy, driven by rapid globalisation, as well as huge structural change. Many of these 'tailwinds' have turned into headwinds. The globalisation and free-trade movement that accelerated under the Clinton administration are showing signs of reversing. And the boom in productivity growth from technological change and favourable demographics has plateaued.

A key contribution to the disinflationary era was made by the changes to the global workforce. One must keep in mind the 1.7 million workers, predominantly from China, India, Southeast Asia, and the former Eastern Bloc, who were introduced into global service and supply chains. And the currency peg introduced by China in 1994 held down the Renminbi, as well as China's joining of the World Trade Organization (WTO), which propelled China to become the world's most efficient collective factory ever created, shipping cheap goods to all nations, lowering costs as well as inflation measurements such as the Consumer Price Index (CPI).

The supply-side developments of the global economy stretched further than many thought possible. Goods became cheaper and more abundant. These startling changes to the supply side of the global economy has benefited the advanced economies with declining costs of goods and services over the past three decades. Yet, the true cost for advanced economies has only recently started to reveal itself, fully formed, and it is showing up in the political sphere: erstwhile manufacturing centres in advanced economies have been hollowed out, and real wages have gone into reverse as global labour markets put downward pressure on wages.

At the aggregate level of the community, poor wage growth was perhaps begrudgingly accepted, as growing asset prices — especially residential property prices — helped enrich certain pockets of the middle classes, and compensate them for the real loss of wages through large capital gains and tax-exempt profits on asset sales. Plentiful access to household credit at low interest rates perhaps further helped suspend the underlying problems in wage settings — at least temporarily.

Yet, at the same time, for an aspiring younger generation, social mobility prospects look bleak. The enormous global central banking response across the world since the GFC and the use of ultra-low interest rates and QE have contributed to a widening wealth gap. A younger generation has been forced to reckon with little to no real-wage growth, and little in the way of capital gains windfalls from asset sales should they enter the fray. Instead, property prices have gone through the roof, the gains locked in for those that acquired property decades ago, and rents have recently grown at their fastest pace in a generation. This leaves those who have acquired property recently, and those who rent rather than own, in very difficult positions.

INFLATION CAUSES

The return to high inflation is discussed almost daily, yet the degrees to which the relevant factors have affected inflation are highly contested. Inflation flared up, initially, when ultra-tight 'just-in-time' supply chains broke down during the pandemic, and the Russia–Ukraine war exacerbated higher prices for both food and energy. But there are credible observations that inflation was already on the march upward before the outbreak of the war.

During and after the pandemic, the labour force was altered by ageing demographics and retirements. The shortage of workers after the pandemic allowed many workers to take advantage of strong labour markets, with many workers finding better paying jobs and more hours. At the same time, the corporations who have monopoly or duopoly control in their markets increased their prices. The ability of large firms to raise prices has been a controversial topic in the community. Increasingly, though, it is looking more and more likely that the initial bout of high inflation was indeed a primarily profit-driven one.

The 'great resignation' is the theory that people left the workplace for good. Disenchanted by stalled climate action, locked out of the housing market, and with useless university degrees, many people used the government stimulus cash from the pandemic to give themselves breathing room from employment, which further tightened labour markets. The 'lying flat' movement that occurred in China in 2022 is one example of this type of movement.[60] Many workers around the globe have yet to return to the labour market, and young people are changing their priorities, from a mindset of accumulation to the philosophy of living in the here and now.

Globalisation is the most compelling reason for the long period of disinflation, which grew rapidly from the early '90s, and is now under threat. The current headlines that point to the death of globalisation are likely to be exaggerated; however, globalisation is becoming more strategic, with geopolitical considerations now being prioritised over pure profit and loss calculations for many trade decisions undertaken by both companies and countries. Supply chains are lengthening as a result, adding to cost structures.[61]

The trade war between China and the United States, such as the battle over microchips, is one example, as key technologies form zones of contest between rival superpowers. Technologies are no longer simply gravitating to the lowest cost producers or to the countries willing to pay the highest prices. Further, the rising costs of defence spending due to geopolitical tensions, as well as climate change mitigation and adaptation strategies, will be extremely costly for the future global purse. All this points to higher, real long-term interest rates.

For all the global issues that have occurred since the pandemic, what should not be underestimated in terms of its role in the return of high inflation are the unprecedented,

[60] "'Lying flat': Why some Chinese are putting work second", BBC, Ivana Davidovic, February 16, 2022.
[61] "Mapping the realignment of global value chains", BIS, Han Qiu, Hyun Song Shin and Leanne Si Ying Zhang, October 3, 2023.

global, large-scale, central banking interventions that have been continually tried since the GFC, especially during the low-for-long era (2009–2021), as well as all the pandemic stimulus measures from central banks and the high government spending.

The Bank of England suggest in a further 300-year study on inflation, that there have been almost no instances in which inflation has not been associated with an increase in the money supply.[62] The US Federal Reserve alone expanded its balance sheet from a little under $1 trillion (pre-2008 GFC) to around $9 trillion by 2022. The aggressive use of fiscal stimulus measures and QE to drive aggregate demand was too much.

In Australia's case, domestic risk premia and the price and availability of credit are largely determined by what happens in global financial markets — particularly, as has been discussed, the stance of US monetary policy. The RBA seeks but cannot truly conduct independent monetary policy because of this.

In the aftermath of the GFC, significant credit has been created in Australia's private sector. An overreliance on monetary policy, rather than fiscal policy or structural reforms, has been the dominant method used to stimulate the economy. The RBA was confronted with a surging Australian dollar and strong capital inflows, particularly from China. In the financial year 2015/2016 alone, over US$800 billion of capital left China, with a non-trivial portion of this finding its way into the Australian residential and commercial property markets.[63] The commodity boom raged on for Australia's economy as China overbuilt at home to meet rampant domestic speculation and huge government-led infrastructure projects.

## PANDEMIC ABUNDANCE

The Australian housing market rose to extreme heights during the pandemic, and prices remain elevated, although price falls are now taking place in many markets. Fiscal and monetary stimulus measures combined during the pandemic to have a multiplicative rather than additive effect, and higher house prices were one result. The entire price level was pushed higher.

The RBA used all its tools in the early days of the pandemic: QE, a cash rate target of 10 basis points, and new innovations such as the Term Trade Facility (TTF), while using forward-guidance liberally. The QE program amounted to $281 billion ($224 billion in Australian government securities, and a further $57 billion in semis, which are state government denominated bonds). These were substantial wealth transfers to bond holders.

The unprecedented bond-buying spree during the pandemic by the RBA left the bank with 35 per cent of all Australian government securities outstanding. Yield Curve Control was adopted by the RBA, especially the targeting of the 3-Year Australian Government Bond. The goal was to

[62] "Inflation over 300 years", Bank of England, Helen MacFarlane, and Paul Mortimer-Lee of the Bank's Economics Division, 1994.

[63] Klein, M. C., Pettis, M. (2020). *Trade Wars are Class Wars: How Rising Inequality Distorts the Global Economy and Threatens International Peace*. Yale University Press.

have these bonds pinned to a 0.1 per cent yield. The RBA purchased 60 per cent of the 3-Year government bonds before abandoning the strategy on the 2nd of November 2021, when the policy was no longer credible.

At the same time as the RBA pandemic stimulus measures, there was a large-scale fiscal expansion underway. The then-Morrison government's $291 billion 'Jobkeeper' program was the largest such stimulus program, and additional programs, such as HomeBuilder, overstimulated the building sector. State-by-state financial packages targeted infrastructure projects. State leaders were advised to spend large to avoid permanent job losses known as 'scarring', under the impression that interest rates would not rise.[64] Long-term government commitments were made and remain, which have put both the public and private sectors in competition for scarce labour and materials, driving up costs and adding to the initial onset of inflationary pressures.

The controversial Term Funding Facility (TTF) was a $188 billion facility provided by the central bank to commercial banks mostly to support businesses during the pandemic, but it ended up mostly being deployed to residential mortgages and thus was really a bank subsidy, and had the effect of inadvertent wealth transfer to bank executives (in the form of bonuses) and bank equity investors.

Households, and those taking out mortgages, have been the biggest beneficiaries or losers, depending on how the new interest-rate setting has impacted their financial situation. The commercial banks, using the TTF facility, could offer cheap loans, taking advantage of the almost-free central bank funding facility, for fixed periods of two to three years. This helped to swell property prices, as marginal buyers were given huge purchasing power. The community was also under the impression that interest rates would not rise until 2024, as per the now infamous communication from Philip Lowe.

Lowe thought people would listen to the qualifiers, which went largely unheeded, and all sorts of financing arrangements, as well as how asset prices were determined, were made off this misunderstanding. The TTF facility was phased out on June 20, 2021. Australia's residential housing market had gone from one valued at $7 trillion prior to the pandemic, to one that had a reported value of over $10 trillion, in the space of three years. In Australia's modern history, financial conditions had never been easier.

The pandemic also moved the RBA towards the financial innovations that had been taken up by the Unites States in the low-for-long era (2009–2021), namely quantitative easing (QE). QE is sometimes compared to 'printing money' out of thin air. This is a stretch, but it does have distorting characteristics, and perhaps even shares similarities with certain currency debasement practices of the past. Ancient governments often succumbed to coin debasement

[64] The common thought within monetary policy circles is that 'scarring' to the economy should be avoided at all costs. Policy makers should stimulate early during downturns to avoid permanent job losses and economic output. The 'plucking theory', as popularised by Milton Friedman, on the other hand, views the economy as having a faster recovery the larger the downturn.

practices at one time or another. In the far less globalised ancient world, debased currencies could maintain their internal value for considerable stretches of time, as most items of trade were produced internally. The external value of coins from a country would often fall, but this was not usually an immediate threat. However, inflation would eventually set in. For large states, like the Roman or Mauryan empires, the full effects of inflation could take up to a century to materialise from their initial coin debasement practices.[65] Throughout history, governments tend to repeat the same mistakes made by these ancestors. We simply don't know how QE will play out longer term, but the 'lags' here, too, could be generationally long.

When Bernanke was Chairman of the Federal Reserve, he joked that "The problem with QE is that it works in practice but not in theory".[66] QE is a tool that is here to stay. It will be relied upon again in future downturns and it will be used to stop huge falls in asset values, but its future use will have limits due to the distorting effects global economies have now experienced with it. The use of QE has changed the situation for house prices, but like most policies, gains have not been spread equally.[67] The reality of QE is that is has benefited existing asset owners, often those in the wealthier postcodes, and the social costs are as yet uncounted.

## A NEW ERA?

The great loss of purchasing power across the community is still in its early stages. In April 2022, Agustín Carstens, the general manager of the BIS, avowed, "The world economy must learn to rely less on expansionary monetary policies".[68] Carstens forewarned that the unprecedented past leeway to focus on growth and employment is no longer possible, since low and stable inflation is to be the priority. This was telling, as it was an acknowledgement from the peak central bank body, that after 15 years of providing life support to the global economy in the wake of the GFC, and the subsequent stagnation, it was finally time to step away from life-support measures and the constant stimulus programs. In short, it was time for central banks to do less.

The initial hesitation by central banks in raising interest rates has since been followed by a rapid, globally coordinated, interest rate tightening cycle, as inflation data kept surprising to the upside during the early inflation shock. The US Federal Reserve is the most forceful advanced economy central bank, and forced the hand of other central banks to undertake their own strong monetary responses in turn. Central banks are now slowly unwinding policy rates, hoping not to receive any data surprises which would force them to revert to higher rates.

---

[65] *Debt, The First 5,000 Years, David Graeber*, First Melville House Printing, May 2011, p. 431.

[66] "US quantitative measures worked in defiance of theory", Robin Harding, *Financial Times*, October 13, 2014.

[67] The research on QE and house prices is still thin. A paper coming out of Sweden, a small, open economy like Australia, makes for an interesting read. "Quantitative easing and the Swedish housing market", Albin Magnusson, 2022.

[68] "The return of inflation", BIS, Agustín Carstens, April 2022.

The central banks are obsessed with anchoring inflation expectations. The American economist Jeremy B. Rudd made this observation in a 2020 research paper:

> A policy of engineering a rate of price inflation that is high relative to recent experience in order to effect an increase in trend inflation would seem to run the risk of being both dangerous and counterproductive inasmuch as it might increase the probability that people would start to pay more attention to inflation and — if successful — would lead to a period where trend inflation once again began to respond to changes in economic conditions.[69]

The goal from over a decade of trying to engineer some form of inflation by the central bank to meet their inflation targets has come back to haunt policymakers, as people and firms pay more attention to inflation occurring in their daily lives.

The RBA attempted to raise inflation expectations in the community in the decade prior to the pandemic, and has since undergone a process of trying to 're-anchor' them by using tough language, as well as increasing interest rates, and gently commencing QT. The central bank may find that households and small business are much more backward-looking than forward-looking in how they set and demand wages and prices.

The measurements for trying to understand inflation expectations are hard to grasp. Clues from the bond market and surveys are pointers for central banks, but they are far from precise, and perhaps even total bunkum. As Jeremy B. Rudd also points out, "An important policy implication would be that it is far more useful to ensure that inflation remains off people's radar screens than it would be to attempt to 're- anchor'". In other words, once inflation is actively being discussed, it may already be too late.

There is a certain embedding of inflation already baked into the inflation cake that will take years to flatten out, even without causing an economic downturn. The high prices for many goods and services, and high wage bargaining agreements, have already been inked into contracts for years to come. Government subsidies used to provide cost-of-living relief have hidden the true extent of inflation and will be unwound. The desired inflation rate of 2.5 per cent looks to be achievable at its present trajectory, but it may be very hard to maintain should the employment market stay robust. The community are likely to take a backward-looking view on their finances and will ask, rightly, for the loss of their purchasing power to be restored from the abrupt change to the entire price level.

## THE RBA, AUSTRALIA'S CENTRAL BANK

The RBA came under intense criticism from both the public and political parties as interest rates began to rise. The bank is largely thought to be in control of domestic financial conditions, but it is subject to shifting global financial currents.

[69] "Why do we think that inflation expectations matter for inflation (And should we)?", Jeremy B. Rudd, 2022.

Credibility is everything in the world of central banking. Amid community backlash in 2022 and 2023 from the RBA's forward guidance mishap, Phillip Lowe, the former governor of the RBA, did not have his contract renewed by the Albanese-led government. Paul Volker, the celebrated former Federal Reserve chairman, stated that any central bank needs to maintain the illusion of knowing more than it does, for the institution to be enduring. Phillip Lowe had broken this illusion when he made the ill-fated forecast that interest rates would not rise. Yet, in his defence, this was the same communication that came out from the US Federal Reserve at the time, and the US Federal Reserve was not roasted like the RBA was. At the time, Lowe would have felt confident in his 'qualified' statement because the US Federal Reserve issued the same information.

The current governor is RBA veteran, Michele Bullock. As monetary policy operates through 'lags' it is perhaps more important to look to the preceding governors than at the present incumbent, and to past policy settings. Any RBA governor and the board engage in intertemporal trade-offs when it comes to policy decisions. What they do today either helps or hinders them tomorrow. The important part of the story may just be the previous two governors: Glenn Stevens and Phillip Lowe. Both bankers were wary of property booms. Yet neither could do much to stop them.

The GFC broke out during Glenn Stevens' premiership. In response to the global turmoil, which upended financial markets, Stevens and the RBA Board lowered interest rates aggressively. The RBA had initially raised the cash rate to 7.25 per cent in 2008 to ward off inflation and keep pace with US monetary policy, and then the RBA board under Stevens had to slash rates aggressively to prevent the GFC from hitting the domestic economy. Interest rates were cut to 3 per cent in 2009, and what followed were Australia's highest terms of trade since the 1950s. The significant China boom that followed matured into a domestic once-in-a-century commodity boom for Australia. Australia's property market recovered strongly, and rapid house price appreciation set in again after the relatively short downturn of 2008.

## TRANSATLATIC BUST OR A TRANSPACIFIC ONE?

The 2008 GFC is now considered less global than it was presumed to be at the time. In some quarters at least, it is now considered to have been a more transatlantic event than a transpacific one.[70] The term 'Global Financial Crisis', is now replaced by 'Great Financial Crisis' in many circles. Interest rates were increased by the RBA from late 2009, and the recovery from the GFC was better than anticipated. The cash rate peaked at 4.75 per cent, but the period was brief, and rates were cut again by late 2011. Two themes emerge out of the RBA's monthly monetary policy statements at the time. The first was the use of lower interest rates to lower risk premia. This was an attempt by the RBA (and other global central banks did this as well), to induce people to take on riskier investment, than simple cash and bond financial instruments.

[70] "The 2008 crisis: transpacific or transatlantic?" Robert N. McCauley, BIS, December 2018.

In the November 2012 statement, Glenn Stevens and the RBA Board noted, "Interest rates for borrowers have declined to be clearly below their medium-term averages and savers are facing increased incentives to look for assets with higher returns".[71] Then, the October 2013 statement said, "There is also continuing evidence of a shift in savers' behaviour in response to declining returns on low-risk assets".[72] In February 2014, Stevens and the Board noted, "Monetary policy remains accommodative. Interest rates are very low, and savers continue to look for higher returns in response to low rates on safe instruments".[73]

The wealth effect through higher asset prices was being relied upon by the RBA to keep the economy afloat. The prudent saver was being punished. Martin Wolf's article in the Financial Times, expressed a typical view of the time: "Wipe out rentiers with cheap money; cautious savers no longer serve a useful economic purpose".[74]

## THE EXCHANGE RATE CHANNEL

The second theme that emerged from the RBA's monthly statements on monetary policy was the resistance from the RBA board to appreciation of the exchange rate. In fact, it became the goal of monetary policy to weaken it. When interest rates were lowered to 2.5 per cent, Glenn Stevens and the RBA board noted the reluctance of the Australian dollar to fall against expectations, from the recent spate of interest rate cuts. In 2015, Stevens and the RBA board became publicly weary of the credit boom in the property market, as per the monthly monetary policy minutes. They passed comment on the central bank's work with regulators to contain rising risks that had shown up in the hot housing market. The self-sustaining property boom was in full swing.

By the time Philip Lowe took the RBA governor role, the cash rate was a low 1.5 per cent, leaving Lowe and the RBA with little room for manoeuvre. Interest rates were then held steady for almost three years before being cut again in July 2019, to 1.25 per cent, and again to 1 per cent the following month. Lowe was also under pressure from both within and outside the RBA, for further interest rate reductions, or even negative interest rates, as unemployment remained below potential, and inflation low.[75]

Part of the 2023 review into the RBA dealt criticism to Lowe and the RBA board for holding rates constant for too long and not meeting the RBA's inflation target.[76] Inflation during Lowe's

---

[71] Statement by Glenn Stevens, Governor: Monetary Policy Decision, RBA, 6 November 2012.

[72] Statement by Glenn Stevens, Governor: Monetary Policy Decision, 1 October 2013.

[73] Statement by Glenn Stevens, Governor: Monetary Policy Decision, 4 February 2014.

[74] "Wipe out rentiers with cheap money", Martin Wolf, *Financial Times,* May 7, 2014.

[75] "There's a Case for Negative Rates in Australia, Ex-RBA Researcher Says", Bloomberg, August 20, 2020. Peter Tulip left the RBA in 2020 due in part to the RBA's failure to debate negative interest rates meaningfully. Tulip makes compelling points against using lean-against-the-wind monetary policy, and why negative interest rates should be considered, but on balance, to my eyes at least, lean-against-the-wind policy appears the right approach when reviewing the opposing literature, especially at nominal interest rates approaching zero.

[76] "An RBA fit for the future", Dr Gordon de Brouwer, Professor Renee Fry-McKibbin. Professor Carolyn Wilkins, March 2023.

time was often below the bottom of the mandated inflation target of 2–3 per cent. The economist Ross Garnaut argued further that the RBA failed over an even longer timespan, the years between 2013–2019, by keeping interest rates too high.[77] Yet, on balance, this was unlikely a failure, especially considering the inflation surge that has recently ripped through the economy. The correct counterfactual may indeed have been the opposite. Interest rates were kept too low rather than too high. Raising interest rates might have been the most sensible idea, even in the face of falling inflation and higher real interest rates, as per the 1995 advice of Charles Goodhart, to halt the economy-wide financial imbalances that have now resulted.

The argument from critics for lower nominal interest rates between 2016 and 2019, using ZIRP, or even implementing negative interest rates, was to increase the level of employment.[78] Yet low rates tend to create the most fragile types of employment: employment generated from the amplification of the financial cycle, i.e., speculative forms of property construction, estate agencies and finance providers, etc.

The more productive and longer-lasting forms of employment would have likely experienced little boost from the falling exchange rate, and credit would have likely continued to flow in the direction of the existing housing stock, rather than business investment. The contingent liabilities from an even bigger housing boom could have been much larger, as well. It is said that monetary policy 'gets in all the cracks', and this limits macroprudential tools in terms of what they can achieve as a counteracting force when running an extremely low interest rate policy. The lack of fiscal spending between 2013 and 2019 was more likely the inhibitor to employment objectives than the interest rate settings at the time from the RBA.

The high Australian dollar had been a vexing issue for industry, and the counter response by the RBA has meant a different type of economy has since emerged. The RBA is extremely free trade minded, and resistant to capital controls, but perhaps, in hindsight, some mixture of capital controls may have been useful to minimise currency fluctuations and the fluctuating nature of international capital flows. The French economist Hélène Rey made the point that "independent monetary policies are possible if, and only if, the capital account is managed, directly or indirectly, via macroprudential policies".[79] The macroprudential policies undertaken in Australia have been greatly improved since the GFC, but there are still significant limits as to what macroprudential tools can achieve to slow booms.

## THE GROWING RISKS OF FINANCIAL INSTABILITY

The Australian economy was operating in a strange economic global system after the GFC — eccentric and loose US monetary policy decisions undertaken by the Federal Reserve were

---

[77] "Blame austerity, not the RBA for post-GFC slow growth", Stephen Grenville , March 10, 2021.

[78] "Cost-benefit Analysis of Leaning against the Wind", Trent Saunders and Peter Tulip, May 2019. This paper provides a good overview on the potential costs of conducting lean-against-the-wind monetary policy.

[79] "Dilemma not Trilemma: The Global Financial Cycle and Monetary Policy Independence", Hélène Rey, February 2018

heavily interacting with Australia's own domestic monetary policy. The Federal Reserve's use of ZIRP between December 2008 and December 2015 put huge pressure on global exchange rates, and the US dollar devalued. This period also led to strong capital outflows to countries such as Australia, as people sought higher returns on capital. Risk premia were not only lowered in the US, but all other jurisdictions, too. The US Federal Reserve, using QE aggressively, put further downward pressure on the US exchange rate.

In other words, not only did other global central banks have to counter US monetary policy at ZIRP, but they had to counter the use of QE by the US Federal Reserve, which led to currency strength elsewhere in the global financial system. The countering by other global central banks, many of which did not have their internal private sectors de-leveraging, helped to stretch already high asset prices. Financial imbalances have piled up for numerous economies that missed the GFC, including Australia's.

In Australia, the forthcoming movement in interest rates was brought to the public's attention when the usually media-shy Phillip Lowe made his appearance on the ABC's 7.30 report.[80] Lowe was signalling ahead of time the problems he knew had already been formed, partly by the central bank. Too much stimulus and intervention throughout the pandemic had combined with the various supply bottlenecks, amplifying inflation.

Other countries were ahead of Australia's inflation experience, and Lowe could see the same warning signs showing up domestically. Lowe compared the RBA's policy settings during the pandemic as akin to 'insurance'. Yet insurance perhaps implies much smaller measures. What had been inadvertently engineered was large wealth transfer in the community, with the wealthy asset owners reaping most benefit. Mervyn King, the former BoE governor commented that central banks were taken in by 'groupthink' and had forgotten the simple rule that excess money creation leads to inflation.[81] One does not need be a strident monetarist to understand the potential dangers of too much money circulating in an economy whose supply side has been badly hit.

The RBA expectations for what people would do with the stimulus money went in the opposite direction, as well. Philip Lowe commented in December 2020, just as the pandemic stimulus package was percolating, "We'll see pockets that are very strong, but across the country as a whole, with population growth so low, I'm not expecting to see big increases in housing prices".[82] Residential property prices rose 23.7 per cent through the year to the December quarter 2021, the strongest annual growth since the Residential Property Price Index began. 2021 went down at as one of the great trading years in Australia's property market history.

Any public forecast from the central banks is bound to be problematic and should be removed from their toolkits. The concerns of too much stimulus were detailed by the RBA in the March 2021 monetary statement. Lowe and the board commented, "Lending standards remain

---

[80] "Reserve Bank Governor Philip Lowe warns it is unclear how high interest rates will go", 7.30, June 14, 2022.
[81] "Mervyn King Says the Bank of England Is Making a 'Big Mistake'", Bloomberg, July 20, 2023.
[82] "RBA governor Philip Lowe says it is a 'good time' for first home buyers", December 2, 2020.

sound, and it is important that they remain so in an environment of rising housing prices and low interest rates."[83] This language may appear subtle, but it is raising an urgent alarm about the overheated property market. By November 2021, Lowe noted the recent changes by APRA to altering the serviceability buffers, which were foolishly stripped away during the pandemic.[84]

Phillip Lowe was one of the pioneers of 'lean-against-the-wind' monetary policy theory.[85] This is the method of holding rates higher than either the short-term inflation rate or unemployment trend might appear to justify. Lowe ran a moderately tight policy for most of his tenure and, on balance, it seemed the right policy to limit the boom from going to greater heights.[86] But it was not a complete 'lean-against-the-wind' policy. To my mind, at least, it was more of a partial lean, as there were political hurdles to a full lean. The RBA is still in the middle of a high-risk moment, holding interest rates at higher levels while winding back its balance sheet through QT, anxiously waiting for inflation to show a sustained settling at the target range.

The huge stimulus provided to the commercial banks is also in the process of being unwound, which will reduce liquidity to the financial system over the years ahead. The RBA is moving away from an excess-reserves system, set in place during the pandemic, to an ample-reserves system, a hybrid system between present and past.[87] Liquidity is being wound back in the financial system.

## BANKING CONCERNTRATION

Bank loan commitments are the straightforward index to most booms. April 2021–May 2022 loan commitments had for each month been more than $30 billion across Australia.[88] When the Royal Commission Report into the banking sector was handed down in 2019, loan commitments were almost half this total, as they were during the boom period prior to the GFC.

---

[83] "Minutes of the Monetary Policy Meeting of the Reserve Bank Board", Sydney, 2 March 2021.

[84] "Did bank regulator APRA slip up on its interest rate floor? And could it cost Australians their homes?" Michael Janda, December 12, 2022.

[85] "Asset prices, financial and monetary stability: exploring the nexus", Claudio Borio, Philip Lowe, July 2, 2002

[86] A solid counterpoint to this argument is made by Philip Turner, *The New Monetary Policy Revolution: Advice and Dissent*, 2021. Turner said that macroprudential policy tools are much more important than the setting of interest rates. Turner advocated, in general, against 'leaning' policies. That one is in an unstainable credit boom most likely cannot be known ex-ante, according to Turner. He suggests that the little known but brilliant economist Dennis Robertson 'demolished' the idea of taming the 'financial cycle' with any monetary policy leaning. However, one should be sceptical about whether the argument can be so easily demolished at such low interest rates, especially negative real interest rates.

[87] "The Future System for Monetary Policy Implementation", Christopher Kent, Sydney April 2, 2024. The pre-pandemic 'corridor' system with scarce reserves was replaced by a 'floor' system during the pandemic. The bank is now moving to an 'ample' system, a hybrid between the two.

[88] Lending indicators, ABS, January 2024.

Historical periods tend to show growing loan commitments reaching great heights at the crest of such booms. The tendency for commercial banks to underwrite more and more loans is hard to abate. The larger the boom, the higher the loans and profits to banks, and so are the dividends for the shareholders.

Australia's eight largest listed companies by market capitalisation include five commercial banks. There has always been an unsettlingly high ratio of banks that make up Australia's most valuable companies. The large size of Australian banks can be attributed to the abundance of property lending, particularly residential lending, which makes up by far the largest group of 'assets' sitting on the listed banks' balance sheets. The Australian banking sector is extremely concentrated in the huge 'Big Four' banks, which together dominate the lending landscape, each benefiting through a 'network effect' of creating credit (inside money) as well as capturing bank deposits circulating within the banking system. At the end of a boom, one would expect the listed financial companies to be at the top of the pile.

Australian banks have over $3.3 trillion in loans outstanding across their collective balance sheets, while non-bank finance institutions (NBFIs) make up an additional $310 billion.[89] The arithmetic for a profitable banking business is not hard understand. Take the net interest margin — which is mostly the difference between the rate charged to the borrower, and the rate paid to depositors, wholesale debt markets and the RBA target cash rate — which is currently at 1.84 per cent.[90] Multiply this by $3.5 trillion, and you have an industry that supplies at least $64 billion in annual mortgage profits. Clearly, this is a lucrative business. Banking CEOs are incentivised through stock options, shares, and bonuses, should they hit specific financial metrics, to continually expand their loan books, to capture ever more revenue.

Most property loans originate from the 'Big Four': ANZ, NAB, CBA, Westpac, and increasingly Macquarie Bank is part of the action, too. While the Big Four and Macquarie still dominate the lending activities in Australia, the banks have become disintermediated at the point of loan formation. Mortgage brokers, mainly acting through large aggregators, have filled this niche. Over 70 per cent of residential loans are now arranged by mortgage brokers who provide the customers to the commercial banks, which then satiate the desired credit needs of the borrower.[91]

While banks still provide the end lending, the commercial banks are playing a much smaller role in the formation of the loan process, relying on mortgage brokers for borrower information such as earnings and the ability of customers to service loans, although the recent ownership of numerous aggregators by the commercial banks themselves is an attempt to undermine this. The major banks have purchased directly, or partly, some of the large aggregators, which

[89] Financial Aggregates, RBA, September 2024.

[90] "Australian majors deliver strong results despite increasing margin and cost pressures" KPMG, 13 November 2023.

[91] "Mortgage broker market share rebounds", MFAA, November 28, 2023.

in turn send loans back to the commercial banks. Mortgage funds are another growing form of credit in the marketplace and are largely hidden from scrutiny.

## CREDIT QUALITY

In 2019, The Royal Commission conducted into banking remarked in its final report that "the use of any intermediary; whether an introducer, mortgage broker, or aggregator, can distort the relationship between borrower and lender".[92] ASIC concluded that broker-originated loans are associated with higher leverage ratios, even for customers with an identical amount of risk. There are powerful financial incentives for mortgage brokers to push for larger and larger loans and even to 'finesse' loan applications, to expand the 'borrowing power' of their clients.

The pushing of clients' maximum financial limits distorts markets, especially when other brokers are doing the same. It's an arms race in which borrowers who (on already stretched capabilities) are competing with other similar borrowers also using mortgage brokers, propelled further on again with buyer agents keen to secure properties, irrespective of the final price paid.

Bidders for property assets turn up to auctions and are turbocharged by higher borrowing limits, creating high prices in the process for those who buy, creating new precedent prices for the next seller to benchmark against. As one top broker commented in an interview about how he obtains additional funds from the banks for his clients, "Don't tell me no; tell me what you can lend to them. If you tell me we can only get a $800k home loan, not a million-dollar home loan, then we're 80% of the way there. So, how do we increase the bank's comfort level and bridge that gap?"[93] This approach may be advantageous if carried out for one party, but when it is done at the aggregate level, it leads to overvaluation and bad outcomes for property buyers. It creates huge systemic risk.

The credit quality of borrowers is deemed to be high in Australia, but this is thought to be true at the top of every boom. The credit quality of borrowers is not static like concrete; each borrower is floating cork-like in the tide. Borrowers deemed 'high quality' are transformed over the economic and financial cycles.

Australia's commercial banks have become much more centralised over the decades and have lost the close 'touch' with their customers they once had. It was common to know one's bank manager when mortgage brokers did not exist. Recent loan sizes have swollen, as well. The average NSW loan size reached $800k at the start of 2022, while in Victoria the average loan size reached $650k.[94] Bigger loans, mostly written through mortgage brokers, spell future troubles for the commercial banks, and perhaps the even greater Australian economy, especially should the capital ratios of the banks come under pressure, and loan delinquencies rise.

---

[92] Royal Commission into Misconduct in the Banking, Superannuation and Financial Services Industry.

[93] MPA Mag, interview Justin Doobov, Intelligent Finance.

[94] Lending indicators, ABS, January 2024.

The Household Expenditure Measure (HEM) is the standard banking measurement test for ensuring that borrowers can meet loan commitments. An audit on ANZ-originated loans during the banking Royal Commission by KPMG, a large accountancy firm, found that 73% of loans did not meet the HEM benchmark.[95] The CBA, Australia's largest commercial bank, found in its own internal review that it had 191,534 loans that did not meet the HEM benchmark. CBA also found its broker-originated loans to have higher total debt-to-income levels, higher loan-to-value ratios, and higher interest costs than loans that originated from its proprietary channel.[96] NAB had more than $24 billion in home loans arranged by 'introducers' between 2013 and 2016, which heightened 'risky loans' at the bank.[97] APRA imposed liquidity add-ons to Westpac due to the weaknesses found within the bank's risk management processes.[98]

Charles Swanston, the 19th century Tasmanian banker, would have been sceptical about ANZ's acquisition of Suncorp, for a whisker under $5 billion. It has the whiff of a classic top-of-the-market acquisition about it. Banking consolidations and acquisitions were known to be problematic even in Swanston's time. They have a habit of forming at the very top of the financial cycle and end up in retrospect looking like folly.

## CONCLUDING REMARKS

Money creation had been left almost solely in the hands of the commercial banks. The commercial banks preference lending to housing markets over other uses, and for the most part the general community, has run in the same direction. New loans, in the form of residential mortgages, have boosted prices. New money has flowed to those who sold their property titles as well as those closest to the pipe of new money creation through bank loan generation. Many households have financialised over the past few decades, and tax policies have been running hand-in-glove to support those activities.

Many of the more established households, i.e., the people who are retired and at the end of their working lives, reaped tremendous rewards from the low-for-long era (2009–2021). However, this is not universally so, as some in this demographic missed out on the bounties. Nonetheless, the many households that took on debt when interest rates were high (supressing asset values) and paid down debt when interest rates were historically low (increasing asset values) have had a tremendous tailwind.

The banking system has provided established households with the needed liquidity for any investment property sale, or for the sale of their own home sale by way of a banking deposit.

---

[95] Interim Report Volume 2, Case Studies, Royal Commission into Misconduct in the Banking, Superannuation and Financial Services Industry, p. 44.
[96] Interim Report Volume 2, Case Studies, Royal Commission into Misconduct in the Banking, Superannuation and Financial Services Industry, p. 21.
[97] Interim Report Volume 2, Case Studies, Royal Commission into Misconduct in the Banking, Superannuation and Financial Services Industry, p. 2.
[98] "APRA agrees to enforceable undertaking from Westpac to address risk governance weaknesses", APRA, December 3, 2020.

This is new money. The commercial banks adopted the Basel banking standards from 1998, and this has been a critical influence on the banking system. Under the Basel regime, residential property mortgages — rather than commercial property loans, which were considered risky — came to provide the lower-risk weights for banks, lessening capital requirements, helping to set the stage for the decades to come.

Meanwhile, younger households purchased when interest rates were low, bidding up asset prices, and are now paying these debts off from vastly higher carry costs, with capital values likely to fall in real terms. The tax code preferences debt over equity and has led to a rising uptake of credit and leverage for the purchase of homes and investment properties.

Australia imported loose financial conditions from easy global ones. Risk-free rates and borrowing costs dropped to the floor during the low-for-long era (2009–2021) and some price adjustments are still likely for the residential housing market. Borrowers are not 'steady state' actors but are transformed across boom-and-bust cycles. High quality borrowers don't necessarily stay that way, and nor are borrowers necessarily understood by the commercial banks who underwrite their loans. The monetary 'lags' are long and still to come.

As central banks obsessed over short-term inflation targets and deflation, globalisation and technology helped to stall CPI inflation. The US consumer, deleveraging in the wake of the 2008 GFC, reduced global aggregate demand. The decades of low inflation perhaps owe less to central bank 'credibility' and more to luck.

Low interest rates also spurred on new technology companies, which played the long game of supplying goods and services that lost money in the short run with the objective of taking longer term monopoly or duopoly positions in the various market categories, putting further downward movement on prices. Examples of these include Uber, Airbnb, and Netflix. Short-term profitability was not a concern in a world of almost free abundant capital and low discount rates used to judge investments. This is an example of how low interest rates can indeed lead to low inflation. But while technology companies had better prospects of raising prices when discount rates changed and with market concentration achieved, harder assets have often not had such flexibility. Cashflows have struggled to keep pace with the surge in interest charges.

Central banks attempted to 'nudge inflation back up to target' before the pandemic by trying to induce the commercial banking system to make more loans (new money) and even participate directly in the money creation process, such as through the implementation of QE.

The inflation story is still unfolding, and many things remain unclear and highly uncertain. The large Australian banks will not only have to contend with the RBA decisions, but also the US Federal Reserve, global bond markets, flighty wholesale markets, and the repayment of the central bank's almost free loans that were provided during the pandemic.

Add in twitchy domestic depositors, who in an instant can take away cheap bank funding. Interest rates charged to homeowners may not fall in line with the RBA's own cash rate. Even so, the eventual start of the interest rates easing cycle is likely to happen in the backdrop of declining employment opportunities and falling demand in the economy. Perhaps most importantly, the real rate of interest will remain high compared with the recent past. And a return to high inflation and higher interest rates cannot be ruled out.

Booms are not generally felled by interest rates being too high; they usually end because of a credit crunch. Interest rate risk appears well managed for the moment, yet the credit losses are yet to fully come. The high level of savings in the community are being spent down and the slowing of the economy is only slowly working its way into the employment figures.

The central banks, including the RBA, have limited headroom for further stimulus, if any. Furthermore, the belief that inflation cannot be caused by excessively low interest rates and unconventional policies such as QE, as well as the aggressive use of forward guidance, has been shattered. The RBA will be reluctant to use unconventional monetary policies again unless circumstances are very dire indeed.

The slightly tighter interest rate policy run by the RBA during the low-for-long era (2009–2021), particularly between the years 2016 and 2019, likely provided the bank with some cushioning. However, the RBA still relied too much on trying to control the exchange rate by lowering interest rates and increasing asset prices to lift household consumption rates. The subtle objective of the RBA to push people out to riskier financial activities by diminishing the yields on bonds and saving accounts may have a negative and long-lasting legacy. The RBA was trapped by groupthink along with other global central banks.

Raising interest rates even in the face of falling inflation in the low-for-long era (2009–2021) would have been a maverick move by the bank, against the grain of other global central banks, building up more policy headroom which Australia no longer has. Many in the community would have been happy with inflation below the mandated 2–3 per cent target, and would have tolerated periods of 'good' deflation. Inflation considerations could have been considered over a much longer span of time, over many years, rather than the bank being too fixated on quarterly and annual movements of CPI.

The recent surge in inflation has so drastically altered the price level that this loss will be either be never clawed back or only very slowly. There is also the potential for inflation measurement problems. The removal of land prices from the CPI basket is one example of why the inflation rate, as picked up by the ABS, is not indicative of how people experience the true inflationary effects in their day-to-day lives. Here the RBA has blundered, to quite a degree, in recommending the removal of land from the CPI basket, but the RBA's hands, politically at least, have often been tied.

The Term Trade Facility and QE by the RBA were policies shared by other central banks. The central bank has generally been in the stable that likes to make decisions akin to those made by the other global central banks, rather than go out on a limb. But this is a political reality, too, as it is harder to be criticised for making policy mistakes that others are also making, than it is to be criticised for unique individual policies that lead to mistakes. The tightening cycle in response to inflation coordinated with other central banks has so far proven to be helpful, yet the coordinated stimulus during the pandemic was over the top.

It is worth asking how realistic it is to expect a central bank like the RBA to do everything right. To protect an economy against powerful financial cycles, as well as counter US monetary policy and the US dollar, are tough asks. The household sector in the US was deleveraging during the low-for-long era (2009–2021), dragging down global aggregate demand, as well as global interest rates. Positive supply-side developments unfolded, leaving little prospect for the advanced economy central banks to meet their inflation targets.

Central banks play an important part in determining the amount of money that is produced in an economy. They do this through how they deal with commercial banks. Money creation is mostly achieved through the private sector today. The central bank aims to keep commercial banks on a leash — controlling the ebb and flow of new loans they make — so that new money is created in line with the inflation target.

The type of credit creation will determine where the money goes and who obtains it. A central bank like the RBA doesn't want to direct what credit creation should be used for; instead, this is up to the 'market'. This is a free market approach to money creation and comes back again to the political economy. A central bank does not want to be seen to directly favour one social group over another.

The high inflation environment of 2022 and 2023, even with the higher nominal interest rate, has still meant overall loose financial conditions. So far, the people and firms with low debt balances have benefitted most, as inflation helped to inflate away part of their debt, at least for the moment. People and firms with larger debt burdens and higher loan-to-value ratios have received less benefit and are now waking up to greater costs, as higher interest rates will place much larger burdens on them over the longer duration of their debt service.

Revised risk-free rates are still forming and this immediate impact on the commercial property markets will likely impact the residential property market over the longer term. The global economy has so far been rather resilient, the most impressive example of which is the US economy. The US economy poses two threats to Australia. First, that the economy moves into a hard landing and creates a global recession, which then coincides with Australia's mature financial cycle. Second, that the US economy has no 'landing' at all and continues to power ahead based on the AI tech boom and huge fiscal spending. This would keep the US dollar high and would provide little relief for the Australian economy; the RBA might even need to increase interest rates to protect the currency.

The recent appointment of Trump is a wildcard that is yet to be understood. But a world of higher tariffs and greater fiscal spending would point to elevated interest rates unless a recession arrives. China's economy is currently going through its financial cycle ending and it is one of the further major risks to the global economy, particularly Australia.

The profitably of the banking system is also now under question and commercial banks have become much more constrained in their lending activity. Many major banks have grumbled about loans being made at less than the cost of capital. The health of commercial banks will be a key issue at this point of the financial cycle. In its stress testing models, APRA has claimed that the major banks will survive a 'severe but plausible' hard landing of 10 per cent unemployment, high inflation, and a one-third decline in house prices. However, bank stress testing is notoriously difficult to fully capture the real risks to banks and the economy.

One great risk looming is that of sovereign risk. Governments have increasingly become unrestrained in their activities, and the bond market out at the longer end of the yield curve has so far been rather accepting, but we have seen brief periods in which yields have surged on the long bonds. Increasingly, monetary policy and fiscal policy are at odds with each other. It's the longer-term interest rates that really matter for asset prices, as well as higher real interest rates. The world is heading down an unknowable path with many surprises likely to emerge, particularly in the political arena. Surprises can be positive, but when you have an entire financial structure that is fragile, you need much more to go right than wrong.

We like to think we live and work within a real economy, but we largely exist within a monetary one. We are fixated on only the smallest stretches of time — tomorrow's auction results, quarterly financial results — while financial boom-and-bust periods span long periods of time, which, paradoxically, show great stability and staying power. Under the calm surface, the vulnerabilities continue to spread but detection is always debunked by the next solid round of financial results. Policymakers rush around the financial cycle, a point interest rate rise here, a point down here, some lending restrictions here. Our perception of time when based on calendar time is too short a horizon to make judgements on any trajectory.

In the 1830s, the Tasmanian banker Charles Swanston wrote to his English investors abroad, who provided key capital to lend to the property speculators before the huge bust. He said, "In this colony there are only two modes of investing money, one is by mortgage on landed security and the other by investments in bank shares".[99] Let us hope that this time round, a little more prudence is found beneath the surface, and that the nation is not a two-trick pony.

[99] Butlin, S J., *Foundations of the Australian Monetary System 1788–1851*, University of Sydney Library, Sydney, Australia, 1968.

## ABOUT THE AUTHOR

Paul Osborne is the director of Secret Agent HQ Pty Ltd, Melbourne, Australia. Secret Agent was founded in 2008. This essay is an opinion based on over 20 years of direct property experience. This is not financial advice.