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Editorial

Michael Burry, the investor who famously predicted the subprime mortgage bubble bursting in 2008 and was a central character in Michael Lewis' book *The Big Short*, recently revealed that he is shorting more than a billion dollars of shares in tech high-fliers Palantir and Nvidia. Both stocks tanked on the news, though they have recovered some since, and it initially brought jitters to the broader market.

Palantir's CEO Alex Karp has called Burry "batsh*t crazy" for betting against his company and accused him of market manipulation.

Nonetheless, Burry's short selling has fuelled concerns about whether markets are overvalued, if not bubbly, and whether they may be on the precipice of a correction or crash.

Downplaying Burry

Before getting to that, it's worth putting Burry's latest moves into context. It's fair to say that Burry is an eccentric character. He went from being a medical student to writing about stocks for a website, to attracting money from big-hitting fund managers, to making huge bets against US subprime mortgages that turned spectacularly right in 2008. His eccentricity made him a captivating character both in Michael Lewis's book and the subsequent movie.

However, his market moves since the GFC have been a mixed bag. But he can afford to get it wrong given the riches he's previously made.

While his shorts of Palantir and Nvidia are large, Burry has probably hedged them in a way so he's not betting the farm on them ie. he won't go broke if they turn awry.

And it's worth noting that he has made specific shorts against two tech companies. He hasn't shorted the entire US tech sector or the broader stock market.

Burry has since explained that he thinks the AI capex boom is inflated and tech companies aren't accounting for them correctly, as they are overstating the useful life of chips, thereby understating depreciation charges and boosting short-term profits. He thinks the returns on AI will disappoint and future accounting adjustments will hurt long-run profits.

That said, Burry is a smart guy and his latest investments have added to concerns that we may be witnessing a historic market bubble that won't end well.

He's not the only bear

Burry is far from the only bear.

Even Jerome Powell, the US Federal Reserve Chair, has said that he thinks stocks are "fairly highly valued."

Aswath Damodaran, an NYU Professor and valuation expert, followed up on Powell's remarks with work of this own, and concluded that: "It is undeniable that this market [the US] is richly priced on every metric."

Jeremy Grantham, who correctly called the 2000 and 2008 downturns, is similarly sceptical about today's market: "This is the highest-priced market in the history of the stock market in the US."

Wall street legend Ray Dalio is concerned about recent US central bank indications that it will start buying bonds again. If that develops into full-blown quantitative easing, against a backdrop of a still strong economy, markets will be vulnerable:

> *"It would be reasonable to expect that, like late 1999 or 2010-11, there would be a strong liquidity melt-up that will eventually become too risky and will have to be restrained. During the melt-up, and just before the tightening that is enough to rein in inflation that will pop the bubble, is classically the ideal time to sell."*

Markets do look toppy

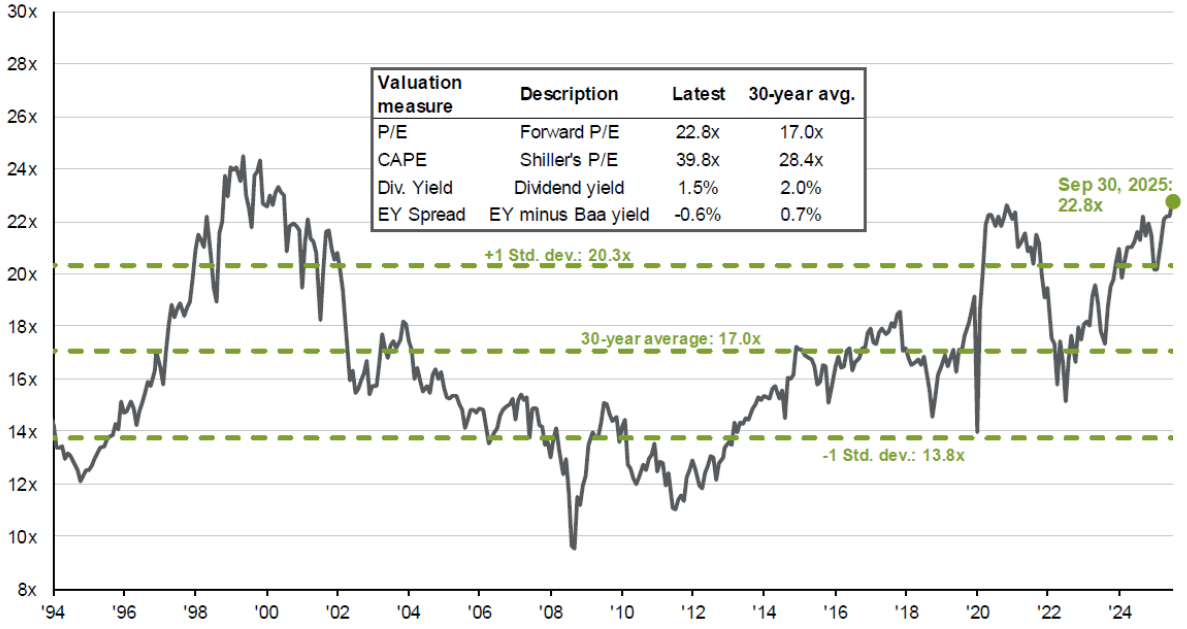
These experts have a point – markets do look frothy.

First, the S&P 500 has returned 16.2% per annum (p.a.) since it bottomed in March 2009. It's been a glorious run, far exceeding the long-term index average return of 10% p.a.

The ASX 200 returns pale in comparison yet have still been healthy, up 10.7% p.a. over the same period, above its long-term average of close to 10% p.a.

Second, valuation metrics, as Professor Damodaran mentions, are high. The S&P 500 is trading at a forward P/E multiple of 23x, versus the long-run average of 17x. It's above levels prior to the 2022 highs, and only a little below those of 2000.

S&P 500 index: Forward P/E ratio

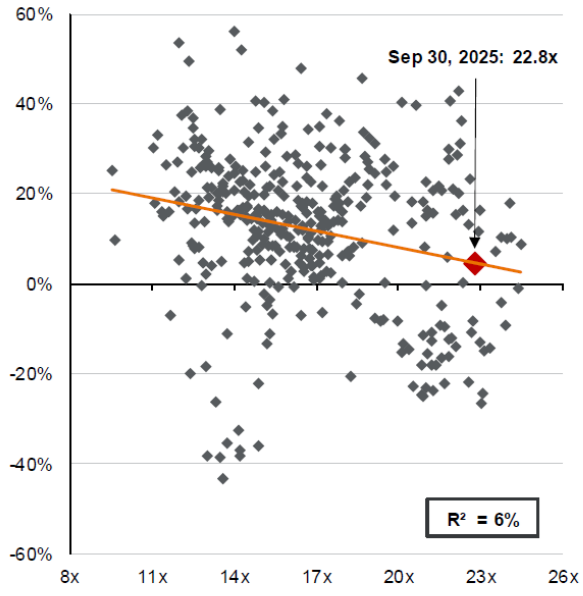


Source: Bloomberg, FactSet, Moody's, Refinitiv Datastream, Robert Shiller, Standard & Poor's, J.P. Morgan Asset Management.
Forward P/E ratio is the most recent S&P 500 index price divided by consensus analyst estimates for earnings in the next 12 months, provided by IBES since March 1994 and FactSet since January 2022. Shiller's P/E uses trailing 10-years of inflation-adjusted earnings as reported by companies. Dividend yield is calculated as consensus estimates of dividends in the next 12 months, provided by FactSet, divided by the most recent S&P 500 index price. EY minus Baa yield is the forward earnings yield (the inverse of the forward P/E ratio) minus the Bloomberg U.S. corporate Baa yield since December 2008 and interpolated using the Moody's Baa seasoned corporate bond yield for values beforehand.
Guide to the Markets – U.S. Data are as of September 30, 2025.

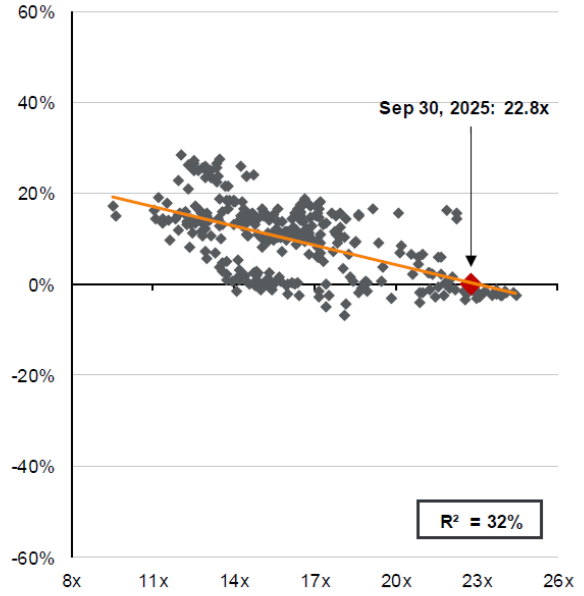
J.P.Morgan
ASSET MANAGEMENT

These P/E levels don't augur well for future US market returns.

Forward P/E and subsequent 1-year returns
S&P 500 Total Return Index



Forward P/E and subsequent 5-year annualized returns
S&P 500 Total Return Index



Source: FactSet, Refinitiv Datastream, Standard & Poor's, J.P. Morgan Asset Management.
Returns are 12-month and 60-month annualized total returns, measured monthly, beginning 12/31/1993. R^2 represents the percent of variation in total return that can be explained by forward P/E ratios. The forward P/E ratio is the most recent S&P 500 index price divided by consensus analyst estimates for earnings in the next 12 months, provided by IBES since December 1993 and FactSet since January 2022. Past performance is no guarantee of future results.
Guide to the Markets – U.S. Data are as of September 30, 2025.

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Meanwhile, the cyclically adjusted P/E ratio (CAPE) indicates the S&P 500 is now more expensive than it was in 1929, and a touch below levels reached in 2000, before the market fell 60%.

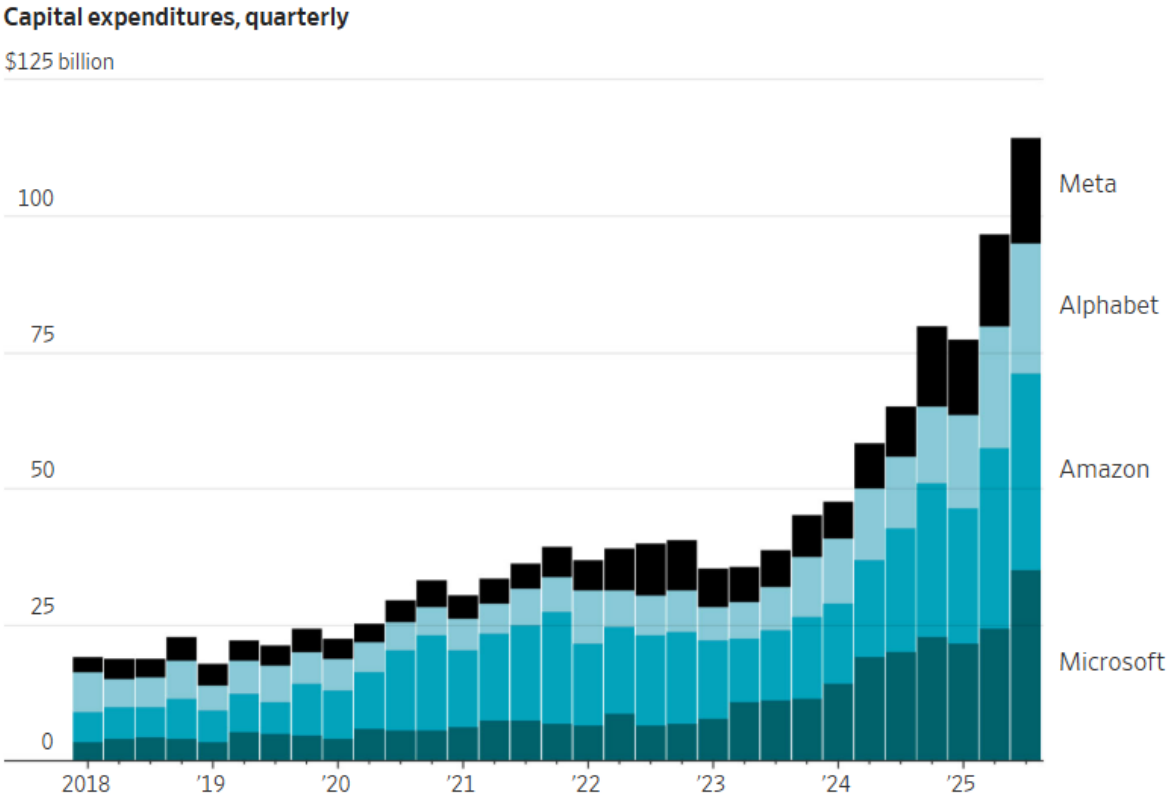
Shiller P/E ratio

Source: Robert Shiller

While ASX valuations aren't as high, the ASX 200 is trading at 20x forward P/E, well above its historical average of 16x.

Third, the extraordinary spending on AI by the tech giants looks eerily like the telecoms capex of the late 1990s and railroad investment bonanza of the 19th century – both of which didn't end well.

Microsoft, Amazon, Google & Meta will pour US$400 billion into capital expenditure this year and J.P. Morgan forecasts US$6-7 trillion in AI capex by 2030, which will require about US$650 billion in perpetual annual revenue to make a 10% return.



Four, there's been the launch of a host of leveraged ETF products this year, offering up to 5x leverage on daily returns.

Five, meme stocks are back. There have been a lot of crazy moves in US stocks recently – Krispy Kreme, GoPro, Beyond Meat, Kohl's - driven by retail investors and fuelled through social media.

Six, there have been many head-scratching, large deals in public and private markets. The circular deals among AI giants – where they essentially invest in each other's chips, capital and compute power – harks back to pre-2000 when internet companies did similar types of deals.

And in private markets, the money flowing into anything AI has been extraordinary. Thinking Machine Labs, launched by a former OpenAI executive, received a US$12 billion valuation via raising US$2 billion in seeding funding, even though it doesn't have a product and few know what it is building.

Timing markets is hard

Despite the obvious froth, it doesn't mean markets will correct or crash any time soon.

It's worth recalling that Jeremy Grantham started calling out a bubble in internet stocks in 1997, but it was three years before markets crashed and, in the meantime, stocks more than doubled.

During that same period, hedge fund legend Julian Robertson made larger and larger bets against tech stocks and yet they continued to go up. He had to close his fund in March 2000, just before the bubble collapsed.

Put simply, bubbles are easier to detect than to time.

What should the average investor do?

So if you do believe that markets are getting toppy, what should you do about it?

Rather than predict what the market is going to do, which is nearly impossible, it's better to prepare for what's ahead. To do that, here are three tips:

1. If you are a long-term investor with a timeframe of 10+ years, it may be best to do nothing – or at least – very little.
2. If you need to soon make a withdrawal - possibly a large one - from your shares, dialling back risk would make sense.
3. Imagine a scenario where stock markets fall 50% and consider how you'd react. If you'd be inclined to sell stocks, then perhaps you hold too many stocks to begin with. If you'd want to buy more stocks when they're down, then maybe you need more liquidity, aka cash, in your portfolio to take advantage of future opportunities.

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We feature several related articles this week. **Owen Lamont** of **Acadian Asset Management** says retail investors are winning big right now, and this case of 'dumb money triumphant' bears similarities to 1929 and 1999 - both of which didn't have a happy ending.

There are also two pieces on the rise of AI. **Michael White** from **Schroders** explores how AI will impact search and Google, while **Rob Almeida** of **MFS** suggests transformative technologies often create massive societal value but leave producers with thinner profits. As AI accelerates, he says understanding this dynamic is key for savvy investors.

In my article, I reflect on Warren Buffett's last letter to Berkshire Hathaway shareholders, and how my view of him - as a genius investor though flawed man - has changed over time.

James Gruber

Also in this week's edition...

Noel Whittaker delivers a warning on housing: the market is heading into choppy waters as lending standards loosen, and that means borrowers should be on guard and not let clever marketing cloud their judgment.

We'd love to get to know more about our readers, hear your thoughts on **Firstlinks** and see how we can make it better for you. So please complete this short survey, and have your say.

UniSuper's Annika Bradley explains how a string of negative investment returns early in retirement can drastically reduce how long your super lasts. She says understanding sequencing risk is crucial to planning for a secure retirement.

According to **Mark McCrindle**, today's consumers are walking contradictions: they crave simplicity in a complex world, transparency in curated realities, and global access with local authenticity. Mark thinks understanding these paradoxes is important for both investors and businesses.

The RBA is shrinking its balance sheet, and thus tightening money supply, while also cutting interest rates, which loosens supply. Getting that balance right will determine the fate of our economy and markets, **Tony Dillion** believes.

Lastly, in this week's whitepaper, **Capital Group** interviews investors to get their views on ESG topics such as the energy transition and the impact of AI on the environment.

Curated by James Gruber and Leisa Bell

Warren Buffett's final lesson

James Gruber

For a long time, I've viewed Warren Buffett as a flawed man. A supreme investor, but a flawed man.

It was a view primarily based on Alice Schroeder's biography of Buffett, *The Snowball*, in 2008. It painted a picture of Buffett's private life that wasn't pretty. That his investing obsession and work ethic took a toll on family life. That he was very often an absent father and husband. And it may have contributed to the separation from his wife, Susan, in the 1970s.

The biography hit a nerve as though Buffett cooperated extensively during the writing of the book, he broke off all contact with Schroeder after the biography was released.

Because of this, I've never idolised Buffett. Admired his investing prowess, sure, but never wanted to follow in the footsteps of the man. I've never understood those who've lionised Buffett as a man as well as an investor.

It came down to values. I saw being a good husband and father as being my number one priority, and most other things a distant second. In my eyes, Buffett didn't live up to that same credo and therefore fell short.

In recent years, I've realised that I've been way too harsh on him. Yes, Buffett has flaws, yet so does everyone else. And his virtues far outweigh the flaws.

Those virtues were on full display in Buffett's last letter to shareholders as Berkshire Hathaway CEO, released this week. He's due to step down as CEO at year-end though will stay on as Chairman.

An ode to his hometown

The final letter is a beauty, his best in some time.

He first pays tribute to his hometown, Omaha. He reminisces about how many business partners and friends he met have come from Omaha.

There was his lifelong sidekick, Charlie Munger, of course. He laments how their paths didn't cross until Buffett was 28 and Munger was 35 years old. That was even though Munger spent his childhood living a block away from Buffett. Also, Munger later worked at Buffett grandfather's grocery store a year before Buffett did. Munger eventually became his "best pal for 64 years."

There was Stan Lipsey, who sold the Omaha Sun newspapers to Berkshire in 1968 and came back to launch a Sunday edition of the Buffalo Evening News – owned by a Berkshire affiliate.

There was Don Keogh and his young family who moved in across the street from Buffett's home. Keogh would end up as the president of Coca-Cola and a long-time director at Berkshire.

Even Greg Abel, the CEO in waiting, lived a few blocks away in Omaha in the 1990s, though he and Buffett didn't meet at the time.

Buffett suggests there must be something in the water in Omaha:

> *"Looking back I feel that both Berkshire and I did better because of our base in Omaha than if I had resided anywhere else. The center of the United States was a very good place to be born, to raise a family, and to build a business. Through dumb luck, I drew a ridiculously long straw at birth."*

On getting old

Buffett then comes back to a theme that he's oft mentioned: how he won the 'ovarian lottery'. That is, how lucky he was to have been "born in 1930 healthy, reasonably intelligent, white, male and in America."

He chides leaders and the rich who don't recognize how much luck has played in their good fortune.

"In many heavily-populated parts of the world, I would likely have had a miserable life and my sisters would have had one even worse," he says.

Though admitting that age has caught up with him, Buffett still seems in decent shape:

> *"To my surprise, I generally feel good. Though I move slowly and read with increasing difficulty, I am at the office five days a week where I work with wonderful people. Occasionally, I get a useful*

idea or am approached with an offer we might not otherwise have received. Because of Berkshire's size and because of market levels, ideas are few – but not zero."

On giving away his fortune

In the letter, Buffett details how he'll accelerate the pace of giving away his US$149 billion estate to his children's foundations. That's because of his three children's own advanced ages and because it will "improve the probability that they will dispose of what will essentially be my entire estate before alternate trustees replace them."

Buffett says he'll allow a short period to let Berkshire Hathaway shareholders gain confidence in incoming CEO, Greg Abel. He expects that won't take long as his children are "100% behind Greg as are the Berkshire directors."

Buffett emphasises that the acceleration of gifts to his children's foundations doesn't reflect on Berkshire's prospects.

Buffett owns about US$149 billion worth of Berkshire, making him the largest company shareholder. Most of his wealth is in the firm's A shares.

On Berkshire's future

On the company he's led for 60 years, Buffett remains optimistic. He says Berkshire's businesses have better-than-average prospects. However, as he'd done before, he tempers that expectation by suggesting that the size of the company will limit future returns; there are many other firms that will outperform Berkshire.

That said, Buffett says Berkshire has less chance of a disaster than any company he knows due to its eclectic set of businesses and shareholder-conscious management and board.

On living the best life

Buffett finishes the letter with five pearls of life wisdom:

1. "Don't beat yourself up over past mistakes – learn at least a little from them and move on. It is never too late to improve."
2. "Get the right heroes and copy them."
3. "Decide what you would like your obituary to say and live the life to deserve it."
4. "Greatness does not come about through accumulating great amounts of money, great amounts of publicity or great power in government. When you help someone in any of thousands of ways, you help the world. Kindness is costless but also priceless."
5. "Keep in mind that the cleaning lady is as much a human being as the Chairman."

Buffett's legacy

Buffett's last shareholder letter displays all his virtues: humility, gratitude, optimism, praise for colleagues and friends, generosity, eschewing of wealth's trappings, and humour.

In *Snowball*, Schroeder writes that Buffett as a child knew he'd become very wealthy and he was already grappling then with issues of what he'd do with his riches. This wasn't a dream or bragging. Buffett knew he had a gift that was going to make him a lot of money.

In some ways, that realisation must have been difficult. Wrestling with the recognition of being 'special' or a genius while trying to live a normal life.

And that may be Buffett's ultimate legacy: though he hasn't always got it right, he's a genius who's remained grounded and a good human being. And he's been able to pass on lessons about investing and life in a way that the average person can understand – because Buffett himself has always felt more comfortable among the masses than the rich and famous.

James Gruber is Editor of Firstlinks.

The housing market is heading into choppy waters

Noel Whittaker

My focus today is the housing market — I fear we're sailing into dangerous waters.

Let's start with interest rates. The Reserve Bank has spoken and, as widely predicted, rates are on hold — at least for now. But the big question is: where to next? I'm one of 32 so-called experts asked each month to forecast what the Reserve Bank will do at its upcoming meeting, and my forecast before that last meeting was no change. I guess I've got a different way of thinking to many of my cohorts. I don't sit in an office studying graphs — I get out and talk to people.

Every employer I speak to, no matter what field they're in, tells me the same thing: they can't get staff. It's especially bad in the building trade, where costs are going through the roof. According to Master Builders Australia, we're short more than 200,000 tradies — and that gap won't close any time soon.

Think about the Reserve Bank's job. If the country is in trouble and needs stimulus, they'll cut rates. If inflation is booming, they'll hike them to try to slow things down. I don't see any rate increases coming — not in the near term. But with things the way they are, there's no way they'll be cutting either. In fact, I'll go so far as to say we may be at the bottom of the rate cycle, which means that last month's cut may have been the last cut we'll see for a long time.

Keeping in mind that house prices depend on supply and demand — and that supply is extremely limited — it's obvious that demand is where we should be directing our thoughts. And it's not good.

Adding fuel to the fire is the stimulus in the housing market created by the government's first home buyer scheme, which allows people to buy with as little as a 5% deposit and no mortgage insurance. It's well-intentioned, but it's adding even more heat to an already overheated market. Every new incentive aimed at helping people into housing ends up increasing demand, which simply pushes prices higher.

Now think about the lenders

But there's more to this dangerous mix — and think about what's happening now in the lending area.

The banks are going gung-ho to lure borrowers directly to them and sidestep the mortgage-broking industry, keeping more of the profits for themselves. Commonwealth Bank has been advertising up to 300,000 Qantas Frequent Flyer points for new loans — enough to fly business class to Europe — and

recently announced it's prepared to offer extra borrowing capacity, up to $40,000 more, for applicants willing to rent out a room in their home to boost income. It's clever marketing, but borrowers need to look past the shiny bonuses and ask whether the deal is really in their best interest.

40-year loans

At the same time, lending standards are slipping as competition intensifies. Great Southern Bank has joined non-bank lenders such as Pepper Money in offering 40-year mortgages. Extending a home loan from 30 to 40 years can make repayments look more manageable, but the cost is brutal. On an $800,000 loan at 5.5%, the monthly repayment is about $4,542 over 30 years (interest roughly $835,000) versus about $4,126 over 40 years (interest roughly $1.18 million). That's around $345,000 extra interest for saving only $416 a month — and it risks people still paying the mortgage in their 60s or 70s, just when they should be thinking about retirement.

10-year interest-only loans

Even more concerning is AMP Bank's new 10-year interest-only loan, which requires no reassessment of the borrower's financial position during that period. It means borrowers can spend a decade paying only interest, building no equity and facing a sharp increase in repayments when principal payments begin. Without a mid-term review, there's also no check on whether the property has held its value or the borrower can still afford to service the debt.

The warnings are coming

These products may make it easier to qualify for a loan, but they're a step back from the more disciplined standards regulators fought hard to enforce. APRA has repeatedly warned lenders not to chase growth at the expense of prudence. It has long identified high loan-to-income ratios, extended terms, and lengthy interest-only periods as major red flags. The regulator insists banks maintain a serviceability buffer of at least three percentage points above the actual loan rate, to ensure borrowers can handle higher repayments, and it requires lenders to hold extra capital against riskier loans. The message from APRA is crystal clear: competition must not come at the expense of sound lending.

All this tells me we're heading into choppy waters. The housing market is fuelled by emotion, and when confidence is high, people tend to take bigger risks. But history reminds us that easy money and loose lending standards always end the same way. If you're thinking about buying or refinancing, take the time to run the numbers carefully — and don't let bonus points or clever marketing cloud your judgment. As I've said many times before, wealth is built by keeping things simple and avoiding costly mistakes.

For borrowers, the lesson is equally clear. Don't be seduced by offers of frequent-flyer points, small monthly repayments, or flashy new mortgage products. Always look at the total interest you'll pay over the life of the loan, and think carefully about how long you want to stay in debt. The banks may be relaxing their standards — but you shouldn't relax yours.

Noel Whittaker is the author of Making Money Made Simple and numerous other books on personal finance. His advice is general in nature and readers should seek their own professional advice before making any financial decisions. Email: noel@noelwhittaker.com.au.

Dumb money triumphant

Owen A. Lamont, Ph.D.

Is the U.S. stock market in a bubble? I doubt we're there yet, but one sign of speculative froth is the recent success of retail investors. On average, retail investors exhibit anti-skill in their stock selection decisions, meaning that their holdings underperform the market. So when retail investors are winning, that tells you that market conditions are unusual.

It is fair to describe retail investors as 'dumb money'. While some find this phrase offensive, I think it's accurate. The word 'dumb' is meant to describe their behavior, as opposed to their innate intelligence. Retail investors include highly intelligent and educated professionals, such as doctors and dentists. But they have a well-documented habit of making investment decisions that result in significant destruction of their own wealth, in other words, dumb behavior. Similarly, if finance professors ever try to perform surgery on themselves, it would be fair to call it 'dumb surgery'.

When market prices get dumb, the dumb money gets rich. The initial success of the first wave of dumb money motivates a second wave of dumb money, which pushes up prices further. This feedback loop, Shiller's "naturally occurring Ponzi scheme", creates market bubbles. Lefèvre (1923) writes:

"The big money in booms is always made first by the public – on paper. And it remains on paper."

According to this view, retail investors win in the initial stage of the bubble but eventually lose when the bubble deflates. Take, for example, the tech-stock bubble. It is clear that retail investors, partly acting indirectly via mutual funds as shown in Frazzini and Lamont (2008), bought tech stocks such as Cisco in the late 1990s.[1]

Here's one story about the tech-stock bubble. Retail buying drove up the price of tech stocks such as Cisco, attracting yet more retail inflows. By the end of 1999, Cisco was one of the best-performing stocks, and retail investors, as a group, had outperformed. Call this retail outperformance 'dumb alpha'. As of 1999, not only were tech stocks overpriced compared to other stocks, but the whole market was overpriced as its composition tilted toward tech. Thus, by late 1999, trailing positive dumb alpha coincided with an overpriced market.

This retail success couldn't last, because prices eventually return to fundamental value. Thus, the positive dumb alpha of the late 1990s turned into the sharply negative dumb alpha of the early 2000s as the bubble deflated. Over long periods, retail investors lose, so dumb alpha is negative on average. However, during speculative episodes such as 1999 and 2021, dumb alpha can be positive.

Another example of positive dumb alpha comes from the initial stages of the South Sea Bubble of 1720. Here's Edward Ward in his poem "A South-Sea Ballad, or, Merry Remarks upon Exchange-Alley Bubbles:"

> *Few men who follow reason's rules*
> *Grow fat with South Sea diet;*
> *Young rattles and unthinking fools*
> *Are those who flourish by it.*

As of today, unthinking fools are once again flourishing while those who follow reason's rules are not. We see ample evidence of positive dumb alpha in the U.S. stock market, as retail investors have outperformed the broad market over the past year.

Figure 1 shows cumulative returns on two ETFs reflecting retail investor holdings of U.S. stocks, one for U.S. investors and one for Korean investors. For U.S. retail investors, the SoFi Social 50 ETF consists of the top 50 holdings of clients of SoFi, a brokerage primarily serving U.S. customers. For Korean retail investors, the Samsung KODEX Investor's Choice ETF consists of the top 25 U.S. common stocks held by Korean retail investors, as reported by the Korea Securities Depositary. In the past year, both of these ETFs have greatly outperformed, with total returns more than double those of the broad U.S. market, as measured by the Vanguard Total Stock Market ETF.

Figure 1: Smart money vs. dumb money

Total cumulative return in the past year. Source: Acadian, based on data from Bloomberg. Most shorted is the Goldman Sachs Highest Short Interest Basket; U.S. retail is the SoFi Social 50 ETF (SFYF); Korean retail is the Samsung KODEX Investor's Choice ETF (473460), USD return; Total stock market is the Vanguard Total Stock Market ETF (VTI). Past performance is no guarantee of future results. For illustrative purposes only.

Since the dumb money is winning, you know that the smart money must be losing. Short sellers have been among the smartest money, historically. Typically, the stocks that short sellers sell are the same stocks that retail investors buy, as shown by McLean, Pontiff, and Reilly (2025). On average, short sellers win, since the stocks they short subsequently underperform. But lately, short sellers have been losing. Figure 1 shows the performance of the Goldman Sachs basket of most-shorted stocks. When these stocks go up, the smart money is hurting. The smart money has endured quite a bit of pain, especially in the past few months.

Dumb money winning, smart money losing—that's a market heading down the road to crazy high prices for some popular stocks and possibly crazy high prices for the whole market. We saw a similar configuration of performance in 2021, which was followed by a decline in the whole market in 2022, but an especially severe decline in retail favorites, as the dumb alpha turned sharply negative.

Historically, stock market bubbles (and, more recently, crypto bubbles) have been fueled by stories about ordinary people becoming fabulously wealthy through their investments. Let me focus on just one group: waiters. When waiters are getting rich, maybe that's the sign of a market top.

Consider this passage from *The New York Times Magazine*, March 24, 1929:

> ***THE MAGNET OF DANCING STOCK PRICES; Playing the Market Is Now a Pastime And the Amateur Has His Day***
>
> *The old-fashioned Wall Street theory that a bull market does not exist unless it is being played by bootblacks, household servants, clerks and others who ordinarily have but small amounts of surplus funds, has again been borne out. They are in the market by the hundreds, and some of them have rolled up luscious profits on their ten, twenty and fifty shares of stock. Two veteran waiters, who have given many years of their lives to service in the Bankers Club, have recently retired on profits accumulated in the market on advice given to them freely by men to whom they were accustomed to serve luncheon. One of them purchased a modest restaurant on Staten Island, paying for it in cash with his market profits. The other bought a farm on Long Island and is making plans for a fine little garden this Spring.*
>
> *… It is quite true that the people who know least about the stock market have made the most money out of it in the last few months. Fools who rushed in where wise men feared to tread ran up high gains.*

Now fast forward to the tech-stock bubble and take a look at *Forbes* from January 25, 1999:

> ***Amateur hour on Wall Street***
>
> *… a 25-year-old former waiter from Queens, N.Y., has a Pro-Star 300-megahertz Pentium laptop patched into E-Trade via America Online. With those tools, trading in and out of stocks like Navarre and Netscape, he turned $1,100 into $100,000 in two months. "Before, I was investing for the long term and I found out that it was not smart. Now my goal is a 1,000% return by 2000," he says.*
>
> *… Each day a 5-million-strong mob of on-line investors is proving that when it comes to stock picking, might makes right. In their world, everything you have learned about rational pricing -- earnings or book values or even revenues -- is meaningless. Don't worry about the long haul.*
>
> *Trade for the moment. Make a killing. Hey, everyone else in the chat group seems to be doing so.*

Finally, we turn to the present day and find this piece in *The Wall Street Journal*, October 10, 2025:

> ***More Working-Class Americans Than Ever Are Investing in the Stock Market***
>
> *… he started putting almost every dollar of his paycheck from working as a server at the Cheesecake Factory into his investments. He followed influencers on X and YouTube who post frequently about their stock picks.*
>
> *In 2023, he purchased hundreds of shares of data-analytics company Palantir. The next year, a wave of enthusiasm among individual investors like Cheney propelled the stock's meteoric rise. The share price is up roughly 900% in the past two years.*
>
> *… managing his seven-figure investment account is his primary passion.*
>
> *"I feel like there's been a shift," he said. "Before retail was scoffed at. Now we're a huge voice in how markets work."*

The similarities between 1929, 1999, and today are uncanny. Of course, it's always possible to find winners in the stock market, just as it's possible to find winners at the casino, so these anecdotes are only suggestive. That's why the aggregate evidence shown in Figure 1 is helpful.

The two waiters mentioned in the 1929 article got out at the right time, converting their stock market winnings into other assets (a restaurant and a farm). But that's not what retail investors typically do. Here's Lefèvre again:

"In a bull market and particularly in booms the public at first makes money which it later loses simply by overstaying the bull market."

So, is it time to get out of the stock market? I don't know, but maybe you should head over to your local Cheesecake Factory and ask around.

Endnotes

[1] References to this and other companies should not be interpreted as recommendations to buy or sell specific securities. Acadian and/or the author of this post may hold positions in one or more securities associated with these companies.

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Can the sequence of investment returns ruin retirement?

Annika Bradley

Australians' superannuation account balances ebb and flow with investment returns delivered by markets. If you had to choose between a few years of negative investment returns at the start of your retirement or the end of your retirement, which would you pick? Is it better to get the run of 'bad luck' out of the way in the beginning? *Spoiler alert:* a string of negative returns early on in retirement can significantly impact how long your money will last. Let's take a look.

Why the order of investment returns can make a difference

Long-term, average investment returns dominate the superannuation headlines. But, average investment returns don't factor in cash flows. Once cash flows are introduced, the order of investment returns can make a difference. Let's look at a simplified example in Exhibit 1. It compares two retirees over a three-year period, both withdrawing $10 per year. The annual returns delivered are +10%, +2% and -5% for Lucky Lucy and -5%, +2% and +10% for Unlucky Ursula. So, while their annualised average returns are the same (2% p.a.), for the purposes of this example, the order of the annual returns is different.

Exhibit 1: A different order of annual returns and the impact if subtracting money from an account

	Lucky Lucy's order of investment returns	Unlucky Ursula's order of investment returns	Lucky Lucy's account balance if **subtracting** $10 / year	Unlucky Ursula's account balance if **subtracting** $10 / year
Starting account balance			$100	$100
Return - Year 1	10%	-5%	$100	$85
Return - Year 2	2%	2%	$92	$77
Return - Year 3	-5%	10%	$77	$74
Annualised average return	**2%**	**2%**		

Lucy's order of annual returns proves more favourable for someone withdrawing cash ($10/year) – her account balance ends up $3 better off than Ursula's balance. This is because the positive returns at the start are offsetting the fixed dollar withdrawal amounts. On the other hand, Ursula's account balance is depleted by both the fixed dollar withdrawal amount and the negative return. This is the simple logic of sequencing risk: when you start spending your super and your account balance reduces, it is harder to benefit from market recoveries.

Of course, this works in reverse when you're saving for retirement. Lucy ends up unlucky. She is $3 worse off than Ursula when they each add $10 per year to their account and when Lucy receives the same order of annual returns as she did in Exhibit 1. And to be clear - if there were no contributions or withdrawals into or out of the account, their outcomes would be identical.

Exhibit 2: A different order of annual returns and the impact if adding money to an account

	Unlucky Lucy's order of investment returns	Lucky Ursula's order of investment returns	Unlucky Lucy's account balance if **adding** $10 / year	Lucky Ursula's account balance if **adding** $10 / year
Starting account balance			$100	$100
Return - Year 1	10%	-5%	$120	$105
Return - Year 2	2%	2%	$132	$117
Return - Year 3	-5%	10%	$136	$139
Annualised average return	**2%**	**2%**		

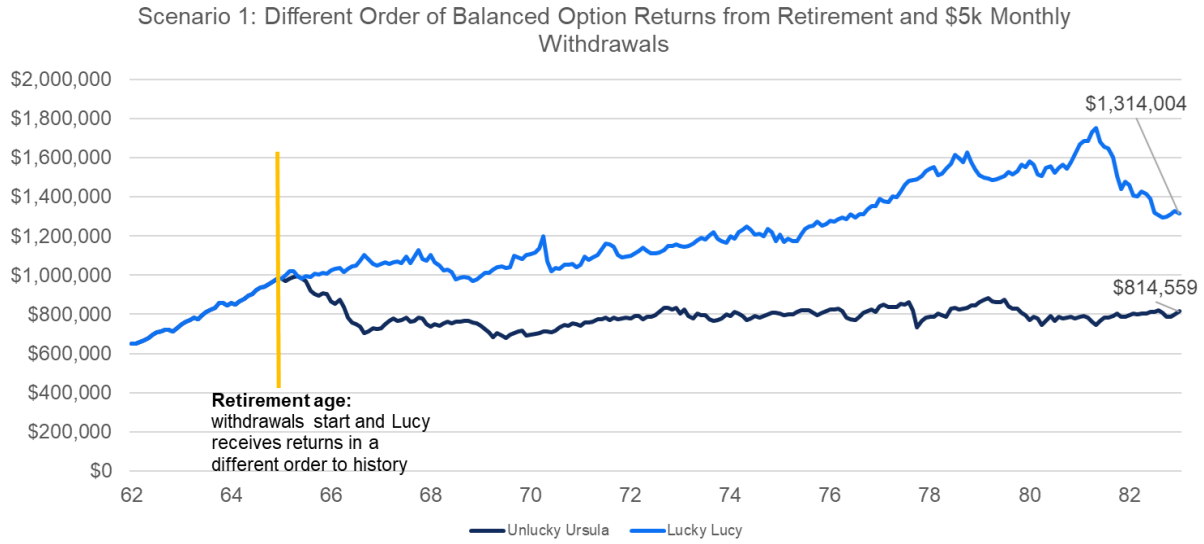
This effect is amplified around retirement age when your account balance is most likely to be substantial. Investment returns have an outsized impact (in dollar terms) on larger balances than smaller balances. For example, a +15% annual return is more valuable when your balance is $400,000 than when it is $40,000. So, earning a string of positive or negative returns during this period can make a big difference to how long your money will last.

Sequencing risk illustrated

Let's now look at a more realistic example. Imagine it's back in mid-2007 and Ursula and Lucy have just retired with identical circumstances. They are both: 65 years old; invested in their fund's balanced option (for the purposes of this example, the UniSuper Balanced Option has been used) and withdraw $5,000 on the last day of each month from their super account.

Let's make one key adjustment for them – the order of their investment returns between 2007 to 2025. Let's give Ursula the order of the Balanced Option's investment returns which actually unfolded between 2007 and 2025. Remember 2007 marked the start of the Global Financial Crisis (GFC) – and so Ursula receives a string of negative returns early on in her retirement. Let's give Lucy the same investment returns between 2007 and 2025 but in reverse order. Instead of earning the returns of the GFC early in her retirement, she earns the positive investment returns delivered in 2025 early in her retirement. Late in retirement, she incurs the GFC's string of negative returns. Scenario 1 shows the different outcomes, purely from a different sequence of monthly returns. On 30 June 2025, Ursula's balance is just over $800,000, whilst Lucy's exceeds $1.3 million.

In isolation, both have done quite nicely. After all, the objective of super is not to pass away with the highest balance, but the $500,000 difference is stark. It's attributable to the different order of returns in retirement, once even modest withdrawals start.



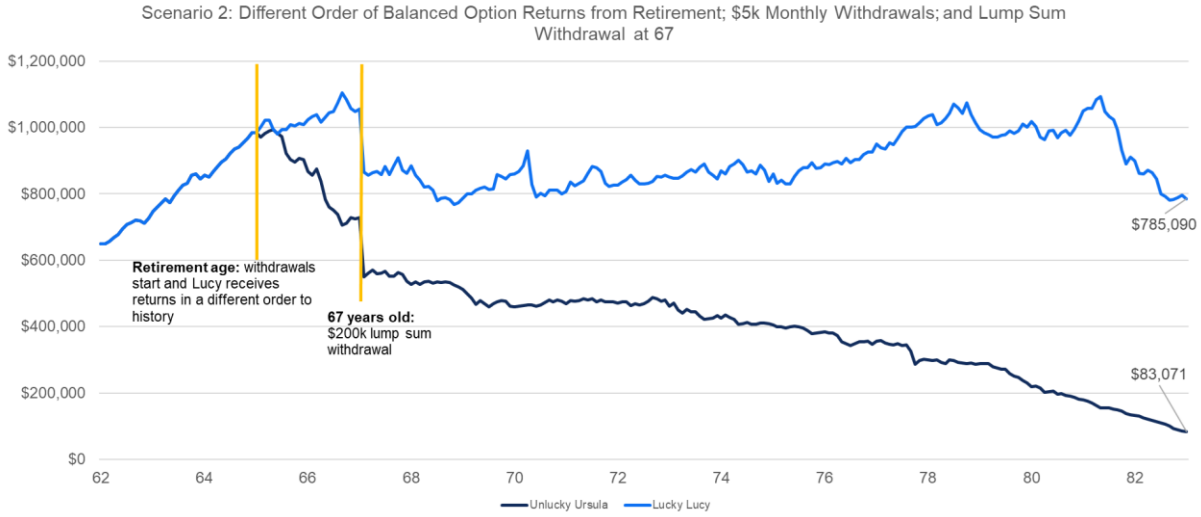
**For the purposes of this comparison, we have referenced the actual monthly accumulation returns of UniSuper's Balanced Option for the period 1 July 2007 to 30 June 2025. Please note that past performance isn't an indicator of future performance. Option returns are calculated after investment expenses and taxes, but before account-based fees are deducted.*

Does the size of withdrawals make a difference?

Modest monthly withdrawals are one thing - large one-off withdrawals are another. These really exacerbate sequencing risk. This is illustrated in Scenario 2 (applying the same sequencing of annual

returns as Scenario 1) when Ursula and Lucy decide to pay down their mortgages two years into retirement (in mid-2009). They both withdraw a lump sum of $200,000 at the same time.

Many retirees fear running out of money and an unlucky order of returns will impact your final balance. You can see Ursula is treading that line, with her balance unlikely to last two more years.



For the purposes of this comparison, we have referenced the actual monthly accumulation returns of UniSuper's Balanced Option for the period 1 July 2007 to 30 June 2025. Please note that past performance isn't an indicator of future performance. Option returns are calculated after investment expenses and taxes, but before account-based fees are deducted.

Get lucky early in retirement or be prepared to manage sequencing risk

The scenarios presented are simplified and the data cherry picked for effect. But sequencing risk is real and large purchases exacerbate it.

In recent years, market sell-offs (e.g. COVID-19 and Liberation Day in 2025) have been short and sharp. The prolonged and severe nature of the GFC exacerbated sequencing risk. While we hope it won't be an issue for most Australians, it's important to be aware of how a string of negative returns can impact your retirement.

There are ways to manage this risk and some of the behavioural biases that accompany it, but all involve accepting certain trade-offs. You can't control the sequence of returns, but plan ahead and seek advice to help make your money last in retirement.

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How AI is changing search and what it means for Google

Michael White

Google became the gateway to the internet because it got users the information they wanted as quickly as possible. Initially, the best way to do this was sending the user to an external website, minimising time on google.com. Google's original model centred around "10 blue links" to external sites, but developed to improve query responses, offering Maps, Images, YouTube, Shopping, as well as "featured snippets".

The latest additions to Google's armoury are AI Overviews and AI Mode (more on these later). Google's model has moved far from its 10 blue link origins. Now, 27% of searches result in no clicks whatsoever. This means fewer people are being sent outside of google.com. Just 56% of searches result in a click, which often includes Google's own tabs such as Images, YouTube or Shopping.

How traditional search supports the open web

By connecting browsers with external sites, Google supports the open web. Website owners can sell something (a product, service, subscription) or show advertising. Traffic can arrive organically to websites, or via paid search.

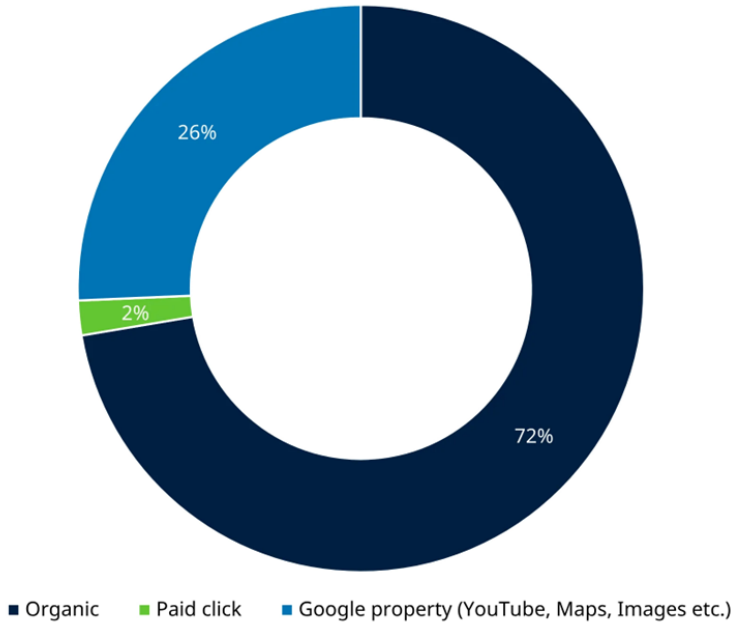
For paid search, the site will bid an amount to show up at the top of the results page for a certain query. Google finds a balance between the bid and how relevant the site is; taking the highest bid but showing a result that doesn't help the user is not a winning solution long-term. If the link is deemed relevant, the link will be shown, and the site will pay Google if the user clicks the link. Paid searches skew heavily to commercial queries, because these are more likely to generate a return on the spend through selling a product.

The beauty of the paid search business model is that it's likely that when a user searches for a specific item, the seller of that item will have both the highest bid and be the most relevant query. In this way, ***paid search is more like a commission model*** than traditional advertising, capitalising on an existing intent to purchase, whereas many other forms of advertising are designed to generate intent.

For organic search, a company will create and maintain the content on its website to maximise exposure to Google's algorithm. If the content is deemed relevant to a particular query, then the link will be shown, and the site will not have to pay Google for the click.

Query results skew heavily towards organic (see chart below). This reflects the fact that many users search Google for information, not to buy something, and hence the incentive for a site to bid and pay for that query is low.

US desktop Google click breakdown, 2025

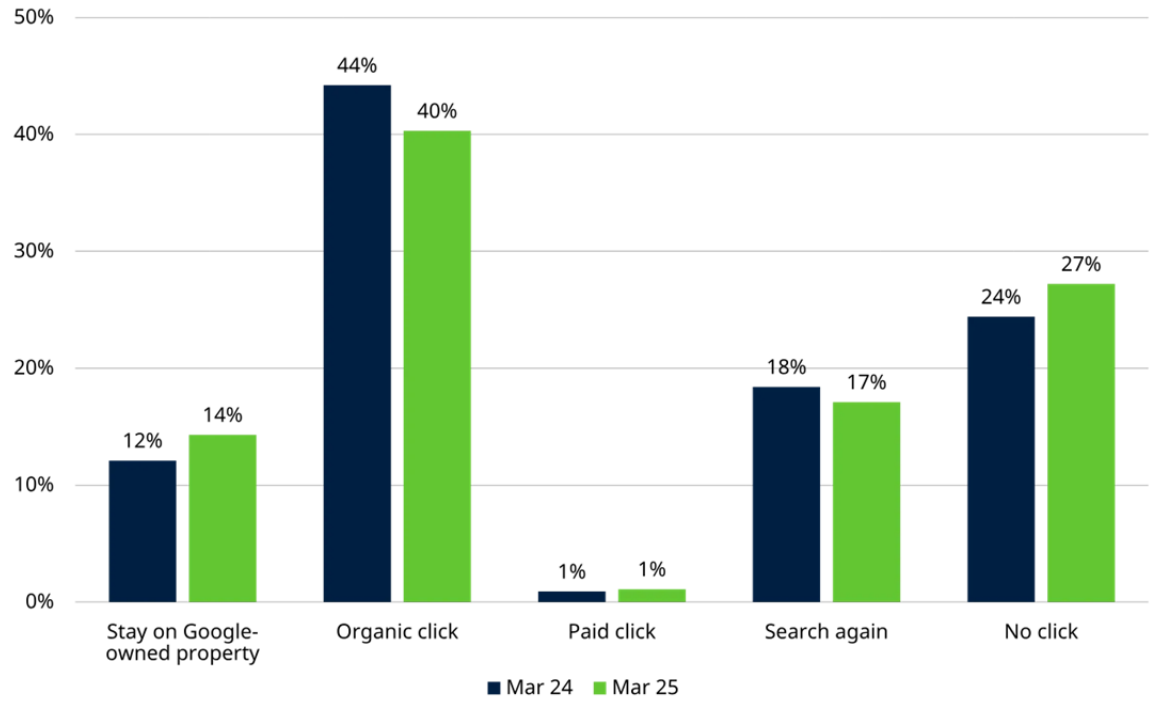


Source: Semrush

How ChatGPT is closing the open web

ChatGPT is challenging this model. Users are spending more time engaging directly with ChatGPT with less exposure to external links. Google's response to ChatGPT - AI Mode and AI Overviews - shows how AI responses have accelerated this trend. The next chart shows how in the period March 2024 to March 2025, where AI answers have become increasingly prevalent in Google's results, the percentage of searches that result in "no clicks" has increased at the detriment of "organic clicks" to external sites. Google is keeping users within Google more.

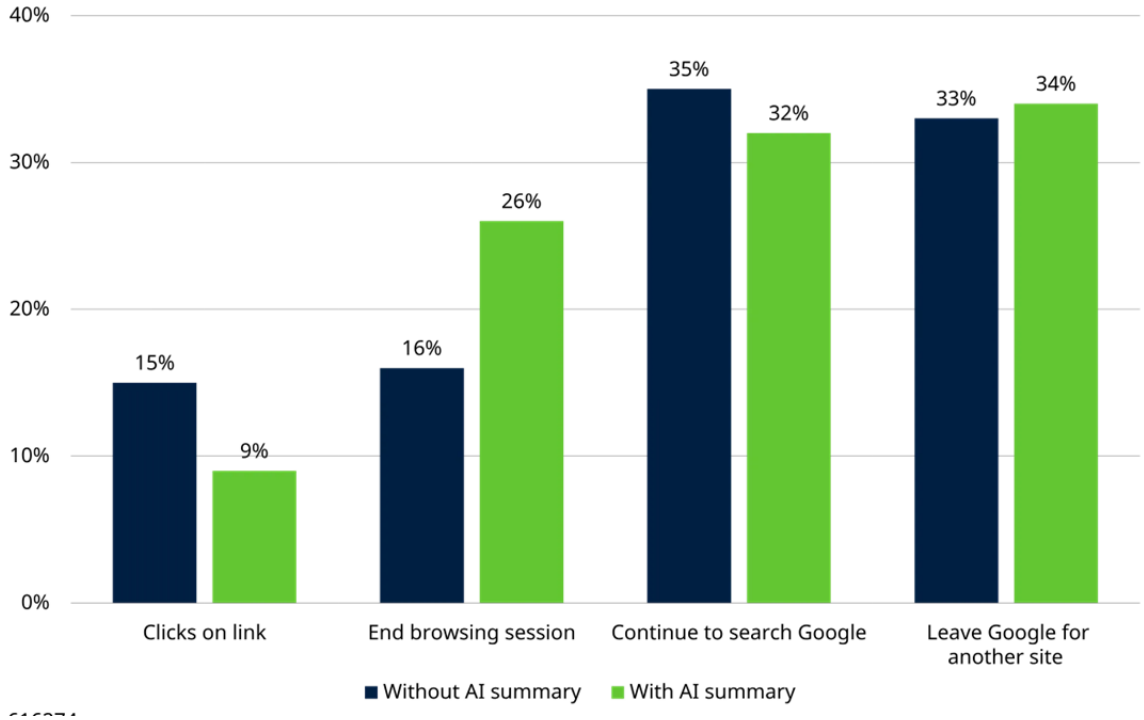
Changing Google search habits in 12 months, US desktop searches



Source: Semrush

Results of a separate study that observed that when an AI summary is shown, users click fewer links.

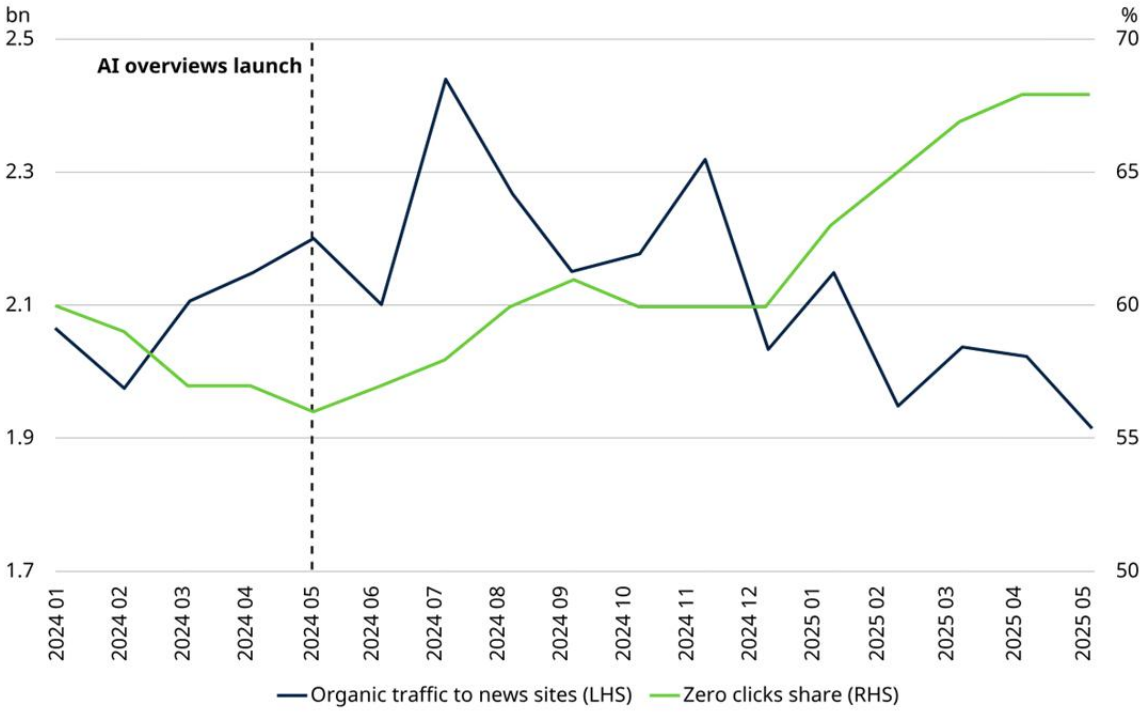
Different clicking habits when AI summary shown or not, US desktop and mobile, 2025



Source: Pew Research Center

The result is that the open web is becoming closed. An increasing proportion of activity sits within the gateways to the internet, whether that is Google or ChatGPT.

Organic traffic to news sites vs. zero-clicks search share US, desktop and mobile web, Jan 2024 - May 2025



Source: Similarweb

This is impacting business models. News sites, for example, require time spent on page to monetise content via advertising, as opposed to selling goods. If gateways provide news summaries, there is less need to visit news sites. We can see this in the data - organic traffic has declined to news sites as the percentage of searches that have no click-through increases.

This has led to multiple news outlets suing ChatGPT and Google to protect their existing monetisation model. However, it may prove too late for these business models as consumer has already made its choice on how it now wants information to be presented.

Less click-through, but more searches for ChatGPT and Google

ChatGPT, by its conversational nature, encourages queries that would never be 'Googled'. ChatGPT users still seek information, as one would on Google, but also query in new categories such as image or video creation, technical help or writing skills, few of which consumers would have Googled pre-ChatGPT.

This change in behaviour is flowing through to Google too, with Google commenting in September 2024 that searches with more than five words are growing at 1.5x the rate of shorter queries.

Despite the surge in usage of ChatGPT, the pie for what search can do for the user has likely expanded significantly, providing plenty of queries for both. Recent comments from Google would support this:

"Overall queries and commercial queries on Search continued to grow year-over-year. And our new AI experiences significantly contributed to this increase in usage. We are also seeing that our AI features cause users to search more as they learn that search can meet more of their needs. That's especially true for younger users." *From Q2 2025 earnings call.*

From a search monetisation perspective, many of these new categories do not result in a sale to the user, so the incentive to pay Google or ChatGPT to appear in results is low.

However, there will be some new queries that may be monetisable. For example, many of the more detailed "how to" questions can be addressed within an AI Overview response, whilst showing ads for the products that enable the fulfilment of that task. It seems reasonable to assume that where the overall query pool increases, the opportunity for commercial queries will expand.

How the monetisation opportunity may develop – "agentic commerce"

To date, most of the changes outlined have been made in areas where revenues for Google are not at risk. Google is indifferent between an organic click to a third-party website and an AI type response, given neither generates revenue. Users increasingly want the answer immediately, avoiding clicking through to another site, hence the increasing prevalence of AI responses to informational queries.

Currently, AI responses do not typically offer satisfactory answers to commercial queries. Users would be unlikely to ask ChatGPT for clothing options over Google for example, as the presentation of products, prices and reviews is lacking compared to "ordinary" search. Unlike informational queries, you can't complete the transaction without leaving the gateway. This situation is developing though, and it seems clear that commercial transactions within the gateway is a goal for both Google and ChatGPT. ChatGPT is now collaborating with Shopify and Walmart to enable users to purchase from merchants directly on the gateway.

This is a step towards "***Agentic Commerce", where an AI agent can fulfil some or all of a transaction on behalf of users.*** For example, could ChatGPT or Google send you a shortlist of family activities over certain dates, providing one-click payment links to significantly speed up the process of research and booking? In this scenario, ***you never leave the gateway***. The difficulty of integrating across the open web cannot be understated, but both companies seem intent on improving the user experience in this way.

Predicting consumer habits is difficult, but for certain transactions where the user might benefit from a "conversation", the experience could be enhanced.

If this works, the revenue potential is in the hundreds of billions of dollars

If agentic commerce improves the shopping experience, then users are more likely to follow through on a purchase that otherwise might not have been made. It could even operate in the background when a user's search for a product hits a dead end (i.e. auto-purchasing out-of-stock items)

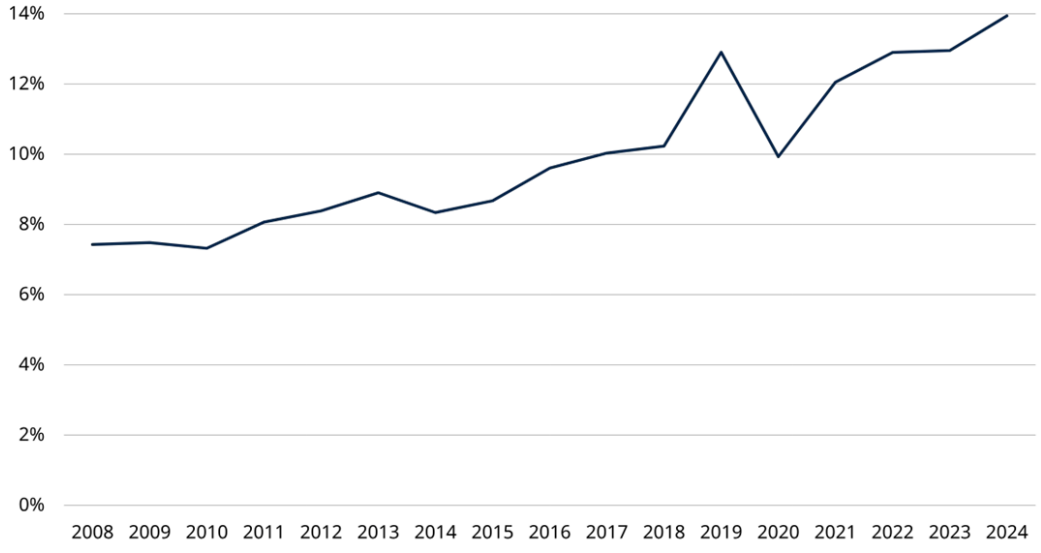
Agentic commerce could also reduce the power of external websites compared to a gateway - fewer shoppers would go direct-to-source, and less of the transaction would be fulfilled by those sites. In theory, over time, more of the value of an online transaction shifts to Google or ChatGPT, in a similar manner to news or content.

How ChatGPT or Google monetise enabling transactions at the gateway is unclear. The existing paid search model would suggest external sites bid for placement, paying if clicked on, but a new model may emerge where there is no bidding for placement, but the site pays the gateway if a transaction is completed. As discussed, though, the search market to date is essentially a commission model so the result may be the same – if the gateway is fulfilling more of the task then its share of the transaction will increase.

This phenomenon has been present for many years, where the Search 'advertising' market has consistently increased as a percentage of ecommerce, reflecting a higher commission on transactions. It is our view that agentic commerce is set to continue that trend.

The scale of this market is huge - the global ex-China search market is approaching $300bn in 2025, of a global ex-China ecommerce market of ~$3tn - what is the ceiling for this ratio?

US search market as a % of US Ecommerce market



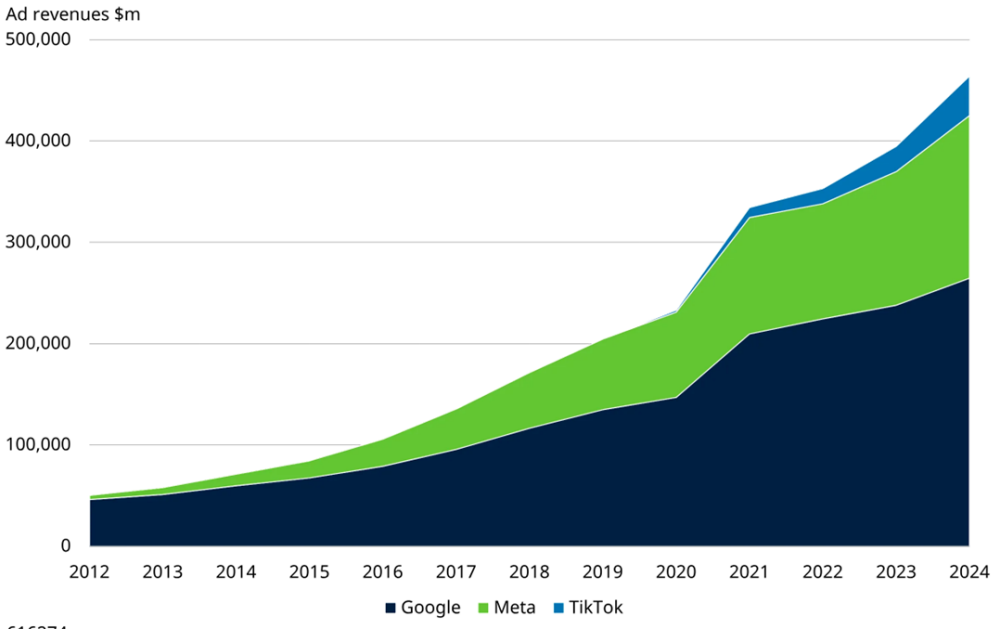
Who will emerge as the winner?

Which of the gateways comes out on top is unclear as of today. For many people ChatGPT *is* AI and therefore it will capture a lot of this activity, Google however has superior reach and is already plugged into many businesses wanting to sell products and services.

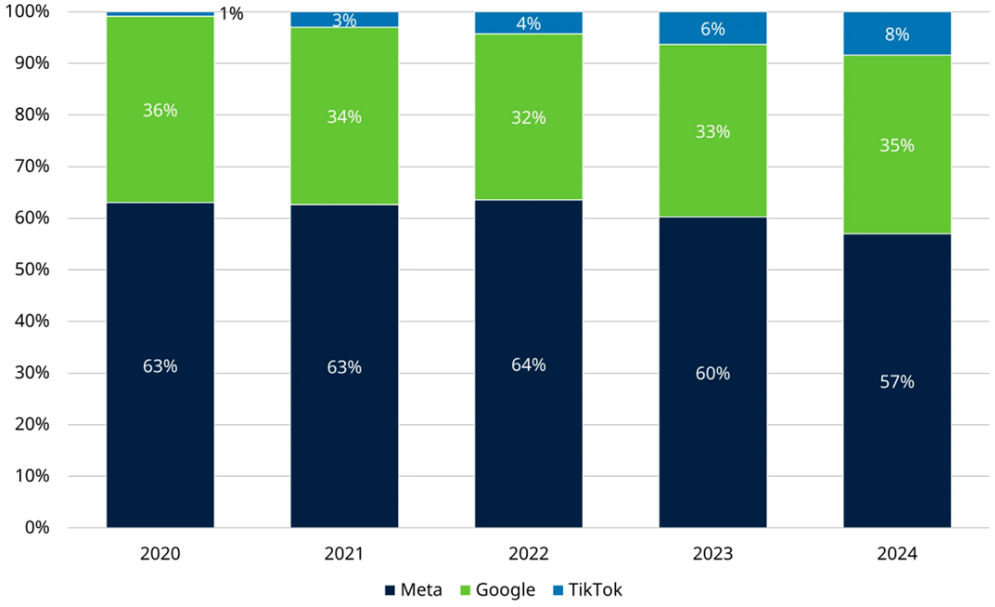
In our view the opportunity is so significant that both can benefit.

We have seen this previously in new markets - Google and Meta Platforms were often seen as competing against one another for budgets. *Both* significantly expanded the digital advertising market and took share from traditional advertising budgets, creating sizeable growth in earnings and shareholder value. Similarly, TikTok has outgrown Meta in recent years, but the addition of short-form video on Meta has ended up being a material tailwind for the business, as it continued to be a draw of budgets into the digital ad market.

All have shown significant growth



Even though Meta and Google have lost share



Both Meta and Google's parent company Alphabet are part of the "Magnificent Seven" group of companies whose performance has dominated markets in recent years. Any threats to their market leading positions understandably cause concern. However, in these instances, disruption from challengers such as ChatGPT, or TikTok, can result in the overall market opportunity growing, even if Google or Meta's absolute market share falls.

Careful analysis is needed to distinguish between disruption that may prove damaging, and disruption that creates new opportunities. Every case is different. Actively managed global approaches are needed to capture the nuance and the opportunity, wherever these may emerge.

For third-party sites there are some difficult choices to be made - do you pivot early and support ChatGPT/Google gaining more power? Or do you hold out to slow the speed of adoption, but potentially lose out when other competitors follow the consumer?

The open web appears set to change, and the gateway might soon become the destination.

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Survey: Getting to know you, and your thoughts on Firstlinks

Leisa Bell

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The survey can be accessed via this link.

A framework for understanding the AI investment boom

Robert M. Almeida

While every financial cycle is distinct, historical patterns consistently reveal a common dynamic: the economic value of groundbreaking general-purpose technologies (GPTs), ones that can affect the whole economy, tend to shift from producers to consumers as adoption rates peak. Examining this trend offers critical insights into the evolution of financial cycles and excesses, providing a framework for understanding today's AI investment boom.

The paradox of GPTs

After a recent business trip in the Middle East, my 14-hour flight home felt long — but a century ago, it would have taken 14 weeks. The air travel industry has shrunk distances, accelerated the delivery speed and volume of goods and expanded human connectivity, effectively integrating the global economy. Through that lens, few would argue that flying — as a GPT — hasn't been wildly beneficial to society; yet the airline industry's profit margins across cycles are lower than average.

This pattern repeats across other historical GPTs. Like airlines, the automobile also brings people and goods together faster, and unsurprisingly, the industry's profit margins are similarly lower than the market average. This pattern was repeated later with radio and television and again in the late 1980s, as computers were rapidly placed on office desktops, delivering massive productivity gains. Today, however, PC makers (at least those not focused on handset devices) often deliver lower-than-market returns on capital.

This leads to a predictable cycle, which can be broken down into these phases:

1. New technology with far-reaching demand is supply-constrained and drives high profit expectations.
2. Prospects for outsized returns draw entrepreneurs and capital which increases product supply and elevates stock prices.
3. While adoption rates are rising, excess competition and supply exceeds demand and dilutes industry margins.
4. Elevated asset prices collapse, and the industry consolidates.
5. Depending on how leveraged the economy and financial markets were to the investment boom, it dictates the severity of the ensuing recession and market drawdown.

The paradox doesn't stem from a failure of the technology itself; in fact, the products continue to advance. Computers are more powerful and faster, televisions are lighter with better pictures, automobiles are more fuel efficient and last longer, flying times are shorter, etc. This is the core of the GPT paradox: the adoption of technology is inversely proportional to its commercial value for its producers and shareholders.

This dynamic often precipitates economic and financial market excesses and corrections, as entrepreneurs and investors fail to properly account for the powerful forces of capitalism and free markets. Investors who allow the awe of scientific advancement to obscure this transfer of commercial value from producers to society are often taught a painful lesson in economics and financial markets.

How can this help us think about AI and this cycle?

An algorithm is a feedback loop that predicts the future based on the past, making AI, at its core, a powerful prediction machine with computational power far beyond human capacity. It is an amazing feat of human engineering that advances daily.

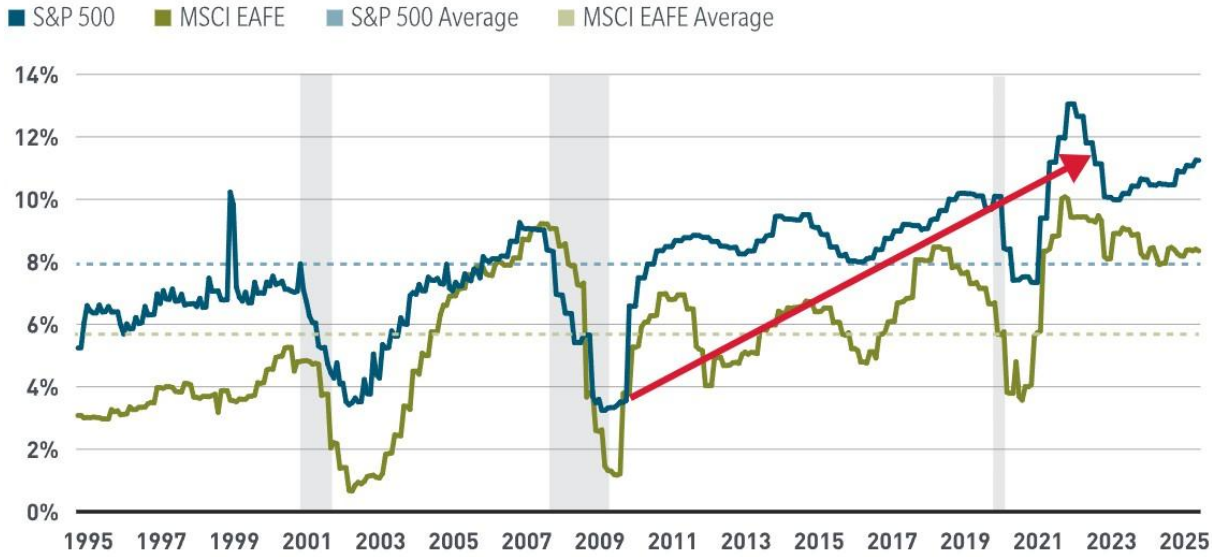
However, like other historical GPTs, this reality possesses dualities. If the profit margin prospects are as high as market hype implies, how can we not expect the past to repeat itself through massive AI supply growth, as we saw with the release of DeepSeek earlier this year?

At the same time, much of the data available for AI models to learn from has already been consumed. This means highly capital-intense AI models may face more than new competitors but also find it

increasingly difficult and expensive to outcompete existing models when they are all scraping from the same database: the web. The less differentiated a product is, the less its pricing power and commercial value.

The accompanying chart displaying S&P 500 and MSCI EAFE profit margins shows the excesses that began in the 2010s after a long period of artificially suppressed interest rates, cost suppression and divestment via globalization. If AI, like other GPTs, follows a path of increased competition and commoditization, it will likely drive a slowdown in AI-related capital spending and flow-through to the broader economy. This could expose vulnerabilities in profit margins currently being obfuscated by the halo around AI.

Exhibit 1: Globalization and Cost Suppression: Effects on Profit Margins Since the 2010s



Source: Bloomberg. Monthly data from 31 January 1995 to 30 September 2025. Shaded areas = US recessions.
It is not possible to invest directly in an index. Past performance is no guarantee of future results.

Conclusion

Much like other technologies, I don't believe you need to be a coder or programmer to assess the commercial aspects of artificial intelligence. Instead, the skilled investor needs to assess the future demand for AI against supply created by the capital cycle, as that is what will ultimately determine profit margins and stock performance.

For long term asset allocators, we feel the investment opportunity lies in avoiding businesses exposed to high commoditization risk, whether directly or indirectly related to AI. Capital should instead be allocated toward enterprises with hard-to-replicate advantages, which includes AI enablers such as certain hyperscalers. We see opportunity in vertical software companies with non-replicable domain expertise, while being wary of certain horizontal software businesses (those that create applications for a broad range of industries, such as accounting or customer relationship management vendors) which may face market share challenges as enterprises adopt AI.

But commoditisation and profit margin deflation extend beyond technology. AI brings instant agency to consumers of all sorts, eliminating the profit advantages of mediocre products whose only economic moat was brands built by large advertising budgets. Companies with middling products and services will

likely find past returns difficult to achieve as competition grows, while being forced to starve advertising budgets to feed long-overdue innovation. Elevated margins, as shown in Exhibit 1, will be difficult for many to sustain.

Overall, we believe selectivity will be key to driving better-than-market returns in what promises to be an evolving and volatile future, delivering a new paradigm of differentiated performance between active and passive managers.

Robert M. Almeida is a Global Investment Strategist and Portfolio Manager at MFS Investment Management. This article is for general informational purposes only and should not be considered investment advice or a recommendation to invest in any security or to adopt any investment strategy. It has been prepared without taking into account any personal objectives, financial situation or needs of any specific person. Comments, opinions and analysis are rendered as of the date given and may change without notice due to market conditions and other factors. This article is issued in Australia by MFS International Australia Pty Ltd (ABN 68 607 579 537, AFSL 485343), a sponsor of Firstlinks.

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The mystery behind modern spending choices

Mark McCrindle

We're living in a time of paradoxes.

As we explore the consumer landscape, we see it shaped by both innovation and change and timeless human needs. In this tension lies a powerful story: of consumers seeking both speed and meaning, digital convenience and personal connection, individual empowerment and community belonging.

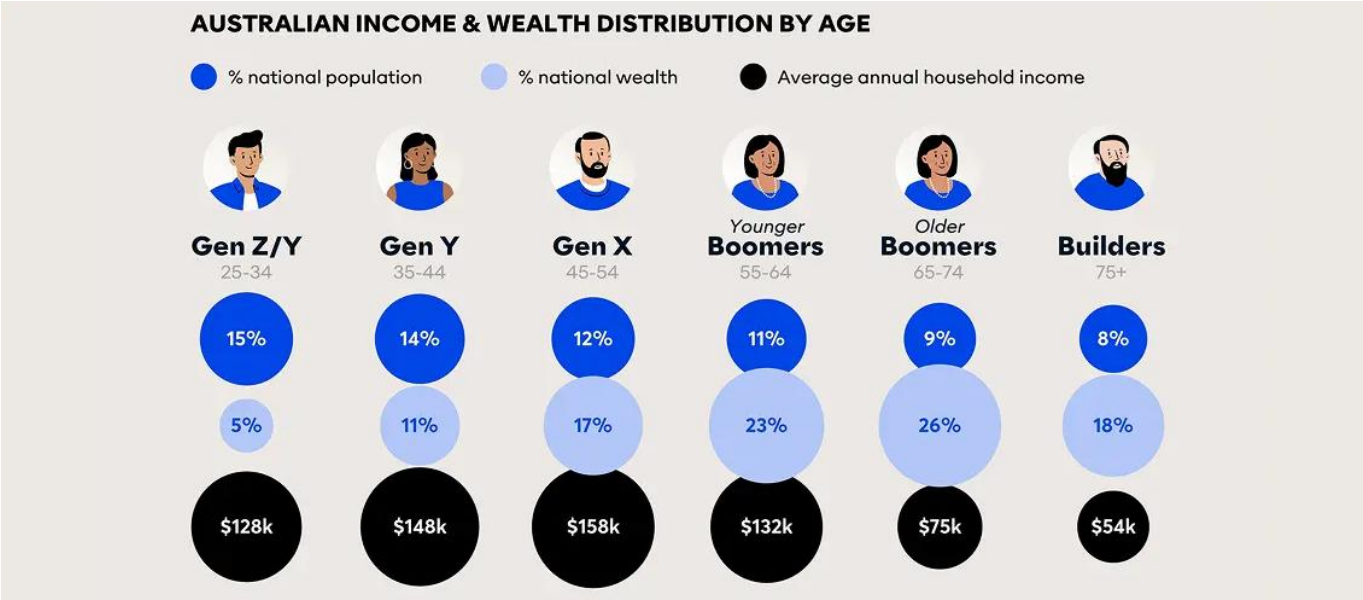
There are the trends like the rise of Artificial Intelligence (AI) and automation to demographic shifts, global connectivity, and sustainability demands are rewriting the rules of engagement. Yet amid this flux, timeless human drivers remain, such as trust, authenticity, and purpose. These are not just buzzwords but benchmarks for brands seeking relevance. The paradoxes are stark. Consumers crave simplicity in an age of abundance. They demand transparency in a world of curated realities. They are globally minded but hyper-local in values. These juxtapositions don't signal confusion, they reveal a complex, evolving consumer shaped by layered expectations.

To navigate this terrain, organisations must become both agile and anchored, embracing change while staying grounded in human-centric drivers. In decoding these paradoxes, we explore the roadmap to meaningful connection in a rapidly transforming world. Here are the megatrends shaping the consumer landscape.

1. Living longer, spending later

As we look across the operating environment today, the purchasing lifecycle is no longer linear, or age bound. Wealth is held by older generations who are living and spending longer, while younger generations, often without buying power yet, hold cultural and household influence. We see that the intergenerational commerce landscape is shifting.

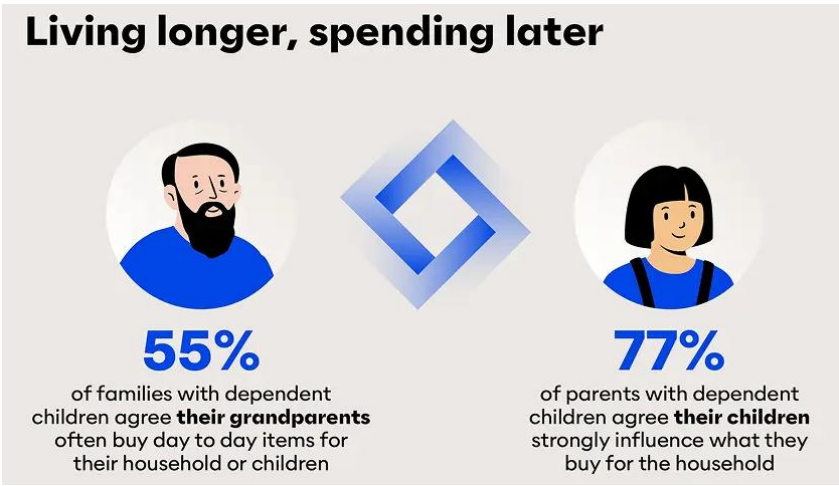
Older Baby Boomers (aged 65-74), comprise 9% of the Australian population, yet hold 26% of national wealth and continue to spend despite their lower relative income. While Gen Xs (aged 45-54), who comprise 12% of the population, have just 17% of national wealth despite being the highest income earners. With an average annual household income of 158k.



By comparison Gen Z/Y in their early earning years comprise 15% of the population and hold just 5% of national wealth. And have an average household income of 128k.

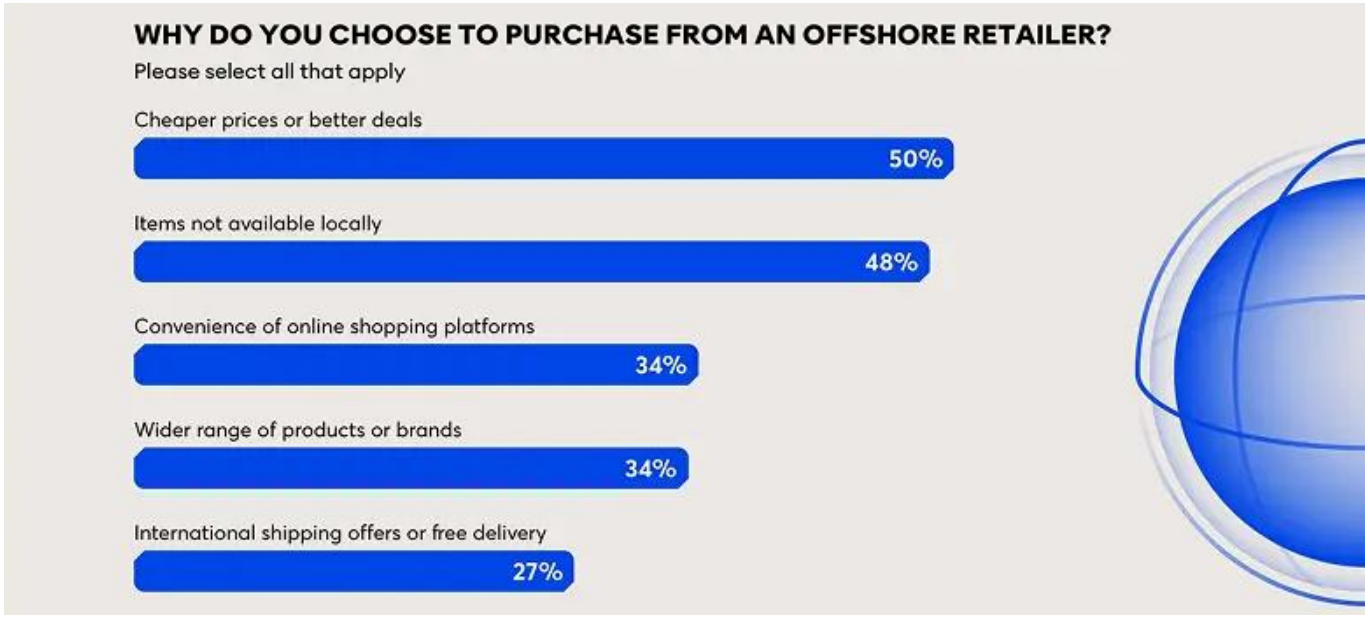
Historically financial power was directly linked to consumer decision making power. Today, however, people are spending throughout the lifecycle. There is a young, empowered generation coming through and purchasing decisions are no longer siloed by age. We even see that older generations are spending longer, and not even necessarily on themselves and today's Gen Alpha children, yet to enter their earning years, are influencing household spend and purchasing decisions.

55% of families with dependent children agree their grandparents often buy day to day items for their household or children. Therefore Older people aren't retiring from consumer culture but many are purchasing for self but also for others, which is fuelling the rise in the Grandparent economy.

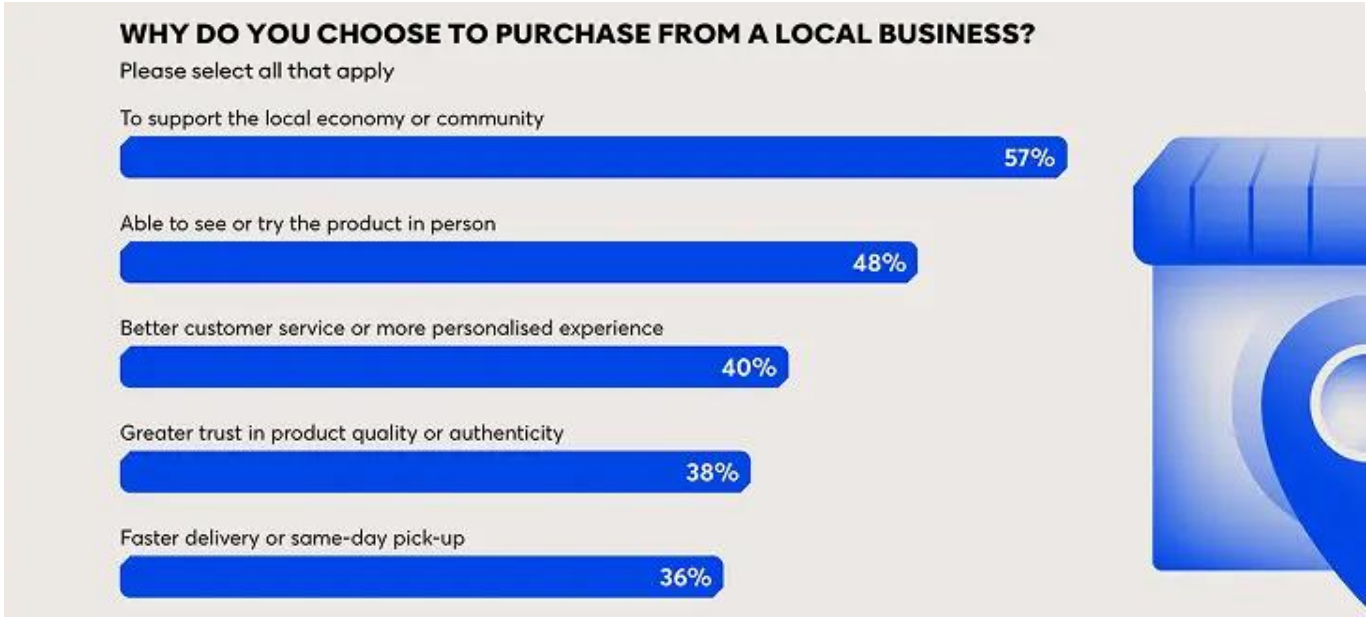


2. Hyper-global and reengaging locally

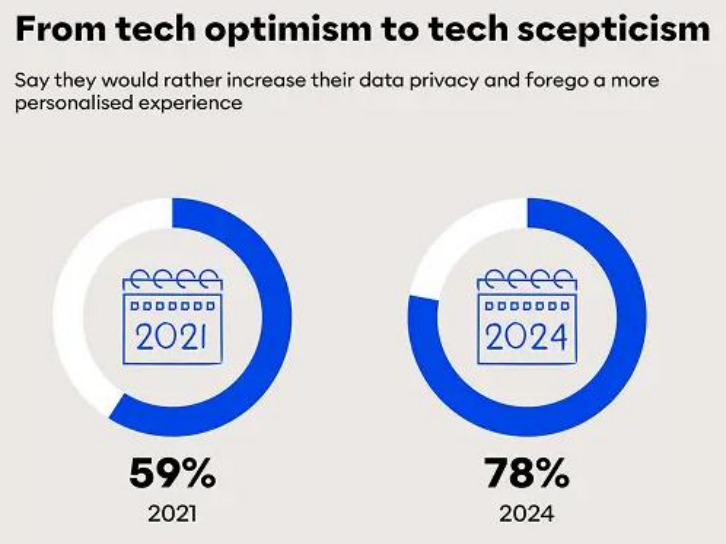
Brands today are expected to have the systems, reach and convenience of a global organisation but the authenticity, and identity of a local organisation. Online marketplaces have been growing, while so too has the support of local businesses. When we asked why do you choose to purchase from an offshore retailer we can see that price is a key motivator, followed by availability. For 34% the convenience aspect comes into play as does access to a wide range of products or brands, leaning more into the convenience factor is international shipping offers or free delivery.



On the flip side the number one driver for supporting a local business is to support the local economy or community, followed by a desire to see or try the product in person. For two in five they see local providing better customer service or a more personalised experience. There is also greater trust in product quality or authenticity. Similar to global purchasing the convenience aspect comes into play with faster delivery or same day pickup.



3. Private by principle, public by practice



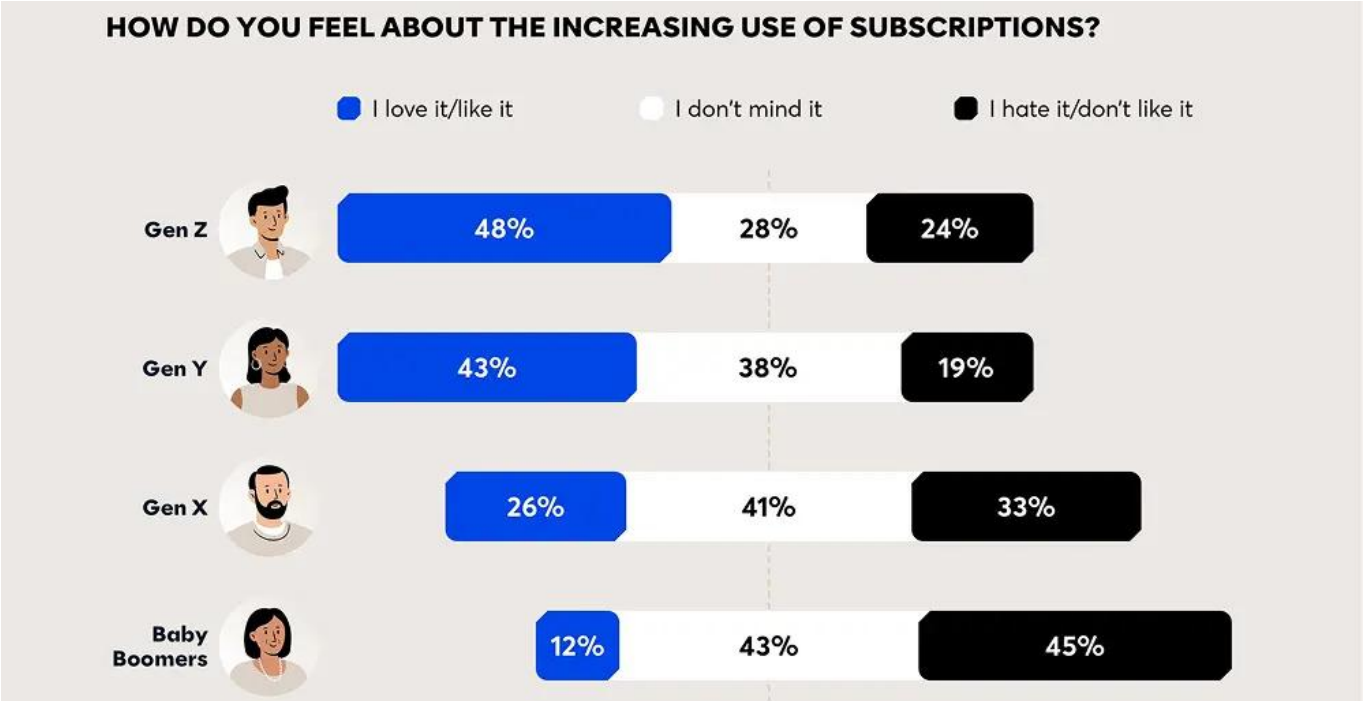
Today's customers are empowered and want to take their data back. Over the past few years there has been a shift from tech optimism to tech scepticism.

In 2021 the percentage who would rather increase their data privacy and forego a more personalized experience was 59%, today that is 78%. What is interesting though is that this is not limited to older generations with Gen Z 1.8 times more likely to value data privacy today than they were in 2021 (79% 2024 cf. 44% Gen Z). This tech scepticism is influencing behaviour with more people valuing their data privacy and foregoing a more personalised experience.

However, many are still engaged in social commerce. This is buying and selling goods alongside referring friends and influencing spend through social media platforms, which by nature are platforms designed to harvest data. We are seeing that social commerce is blurring the lines between privacy and experience.

4. Outsourced ownership

Twenty years ago, music was owned, today it is streamed; cars were owned, now many are leased. A trade off with this ongoing accessibility is a loss of permanence. Today, people may pay less upfront, but they are paying always. When considering generational attitudes towards these subscriptions, it became clear that Gen Z and Gen Y are more likely than their older counterparts to love or like subscriptions, with as the emerging generation of consumers is seeing the rise in the subscription economy.



Established generations, however, are more likely to hate it or not like it. Generational use of subscriptions is reflective of their sentiment. Gen Z who are most positive towards subscriptions are also the highest users of subscriptions. Convenience, followed by value for money, access to exclusive content. For three in ten they identified that sometimes subscriptions are the only option, and for a quarter they found that regular payments make it easier to budget.

5. Cutting back, yet also premiumisation

We're in a cost-of-living crisis. You probably hear it everywhere. People are cutting back because of this. Yet, we are also seeing premiumisation which is when people spend on luxuries.

Interestingly this isn't a new phenomenon. Back in the early 2000s, Estée Lauder noticed an odd trend: when recessions hit, lipstick sales spiked. Economist Juliet Schor had already put words to it – the Lipstick Effect.

Our research shows that almost 77% of Australians are extremely or very concerned over the rising cost of living. But, a similar proportion 69%, agree that even when tightening spending in some areas, they choose to splurge on little luxuries that make them feel good. What this shows, is that even during economic strain, consumption decisions are entwined with identity. Buying things can make us feel good, meet our needs or even display status to those around us.

6. Environmental concern amidst consumer pragmatism

Today's consumers are more environmentally conscious than ever, yet they also face real world constraints like time, money and convenience. 57% of consumers say they have had to compromise their social responsibility values to purchase a cheaper product. However people are also willing to invest in quality pieces that last a long time.

In an interesting twist, younger generations are more likely than their older counterparts to purchase something cheap even though they know it's bad for the environment. Although younger generations are often the most vocal about environmental sustainability, we've seen them be pretty impacted by the rising cost of living, and therefore the least able to financially support their consumer values. Customers have their values. But they are also seeking value.

7. Post-materialism in a hyper material world

For many, material wealth is increasing, but at the same time, overall satisfaction is decreasing. 52% agree that the more they own, the less satisfaction they seem to get from new purchases. People are making room for meaning, with 77% of consumers agreeing they are more interested in experiences and meaning than accumulating material possessions.

People have a void which material possessions are not satisfying in the way they used to. There is still a desire, however, to use purchases to communicate identity and values. As the focus shifts to investing in community and meaning, there is an opportunity for organisations here to provide brand experiences that create belonging and identity expression to combat isolation and loneliness.

Despite the tides of change and these paradoxes, some timeless human needs have remained the same, and they are worth exploring when thinking about consumer behaviour and decisions.

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The RBA's balancing act

Tony Dillon

The RBA's Quantitative Easing (QE) bond-buying program during the pandemic saw its balance sheet expand to more than $600 billion, creating accounting headaches in the process. It's now trending back towards its pre-pandemic level of about $150 billion, currently sitting at a more reasonable $400 billion.

The reduction is occurring as the RBA allows its bond holdings to run-off the balance sheet as they mature. This process is known as 'passive' Quantitative Tightening (QT), as opposed to 'active' QT which sells bonds back into the market. Both forms of QT reverse QE.

QT is contractionary, yet unfolds at a time when the RBA is cutting interest rates, which is expansionary. So why the contradiction? Before answering the question, we first consider the mechanics of QE and QT.

Some quick housekeeping.

- Bank reserves (Exchange Settlement balances), are commercial bank deposits held at the RBA, used to settle interbank payments. They form part of the monetary base, or 'base money', as measured by M0.
- Money held by the public in the form of currency and deposits is captured by the measure M1, while 'broad money' (M3) includes M1.
- Commercial banks act as intermediaries between the RBA and the private sector, while the RBA handles government transactions.

Understanding government borrowing

Let's begin at the beginning, with the government borrowing money. It does this by issuing bonds. Bond purchasers (government lenders) may be either commercial banks or the private sector (investors and funds).

When banks buy Treasury bonds, they pay using their reserve balances held at the RBA. Base money falls. See Table 1a, for balance sheet movements between the involved entities.

The private sector acquires bonds by exchanging bank deposits. Broad money falls. Matching bank deposit liabilities also fall, with a corresponding fall in reserves as they transfer funds on the private sector's behalf. Bank balance sheets contract, and base money falls. See Table 1b.

When government spending follows, Treasury deposits at the RBA fall, and bank reserves increase by a corresponding amount. Base money rises. The private sector is the recipient of the spending - bank deposits increase so broad money rises also. This can be inflationary if output can't respond to increased demand. See Table 2.

How QE works

Turning to QE. The RBA buys government bonds from commercial banks or private sector investors. In both cases, it creates bank reserves to make the purchase - an RBA liability matching its newly acquired assets. If a bank is the seller, it swaps its bonds for the RBA created reserves. Base money rises, broad money is unchanged. If buying from the private sector, both bank reserves and private sector deposits

increase, as the investor's account is credited. The investor has swapped bonds for deposits. Both base money and broad money rises. See Tables 3a and 3b.

QE was employed aggressively by central banks during the pandemic, once conventional monetary policy hit its limits. With official cash rates already at or near zero, QE sought to lower borrowing costs further by reducing longer term interest rates and flattening the yield curve. Its design was to calm financial markets as governments imposed extraordinary economic restrictions.

Key points with QE:

- QE creates new money in the form of bank reserves, but not spendable cash. It increases base money substantially, but any broad money increase will be limited to the extent that non-banks are bond sellers.
- The net financial wealth of the non-government sector is unchanged as bonds have been replaced by bank reserves and private sector deposits. Yes, liquidity has risen and can influence spending in the economy, but QE has been more a case of asset swapping than money creation.
- QE changes the composition, not the quantity of private sector wealth. Replacing longer term debt with short term bank reserves and deposits, it shortens the duration of holdings. In response, investors rebalance their portfolios, bidding up prices on the remaining pool of bonds and other long-term assets, driving down long-term yields.
- Even with an increase in broad money when the RBA buys bonds from private investors (super funds, insurers, individuals), it is likely they will seek to re-invest elsewhere rather than spend into the economy, such that the effect on demand would be minimal. And there is no change in broad money when banks sell their bonds.
- QE alone is rarely inflationary. It provides more liquid purchasing power, but minimal new purchasing power. By itself, it doesn't directly create spending in the economy.
- QE sets the scene for fiscal expansion with added liquidity, but it is really deficit spending that lifts private sector wealth and drives demand.

Summary Table

Action	Description	Effect on Bank Reserves (Base Money)	Effect on Bank Deposits (Broad Money)	Effect on Net Private Sector Wealth	Likely Inflationary Impact
Govt debt issued to banks	banks swap reserves for bonds	falls	unchanged	unchanged	no
Govt debt issued to private sector	private sector swap deposits for bonds	falls	falls	unchanged	no
Govt spends	Treasury deposits transfer to private sector accounts	rises	rises	increases	yes
QE (RBA buys bonds from banks)	banks swap bonds for reserves	rises	unchanged	unchanged	no
QE (RBA buys bonds from private sector)	private investors swap bonds for deposits	rises	rises	unchanged	mild

What's clear from this table is that only fiscal spending directly increases private sector wealth, while the other actions shuffle existing financial assets around. However, QE enhances liquidity, and if increased reserves encourages banks to lend more, and there is a private sector willing to borrow, then QE has laid the groundwork for broad money growth and for potential inflation.

(Note: bank reserves are not public money and can't be lent out. When a bank lends money, it credits the borrower's account with a deposit while simultaneously recording a matching asset and liability in its balance sheet. The deposit is new money.)

And while fiscal spending alone can be inflationary, it becomes even more potent when combined with QE, which adds liquidity to the equation. In an economy at near capacity, deficit spending provides the fuel for inflation, and QE the accelerant.

We saw this during Covid. The enormous injection of liquidity and fiscal stimulus set the scene for a potential inflationary surge. There was little concern at the time however, with inflation persistently low for years, and demand in the economy severely stilted by the pandemic. Then with the combination of ultra-low interest rates and bank reserves awash, asset prices soared and demand awakened from its slumber as economies opened back up. But in a world in the grip of severe supply constraints, an almighty surge in global inflation was triggered, and the rest is history.

It is also worth noting that when government spending coincides with a QE program, the combined outcome can effectively resemble 'monetary financing'. That is, Treasury issues debt to fund its deficit, and when the central bank purchases equivalent debt, it can appear that the central bank has financed that spending.

Technically, this is not monetary financing, because the central bank trades in the secondary market rather than directly with Treasury. Yet there could be a perception of dependence when central bank independence is fundamental in advanced economies. It is generally understood however, that QE is temporary, with the expectation that QT will eventually unwind it. Along with any 'appearance' of monetised debt.

Quantitative tightening

Moving onto QT. Consider the passive form that the RBA is undertaking.

When government bonds held by the RBA mature, Treasury pays for the redemption from its deposit account at the RBA. The RBA's assets and liabilities fall and its balance sheet contracts. Treasury then issues new debt to replace its deposits. Banks or investors buy the new bonds and the reversal of QE is complete. See Table 4.

Therefore in theory, QT is the mirror of QE. The former returns bonds to the private sector extinguishing bank reserves and base money, while the latter removes bonds from the market, creating reserves. Both actions change the composition of private sector assets, but not the aggregate. In practice though, they are not an exact mirror. Because economic context can dictate the scale and timing of execution of each. For example, a country running a large fiscal deficit will add reserves and liquidity to the system through its spending. And if the goal is to run down liquidity, a more aggressive QT policy may be required.

Implementing QT and cutting interest rates simultaneously can pull in opposite directions. This is because lowering interest rates, cuts the price of money, stimulates lending and demand, easing financial conditions. While QT sees the RBA balance sheet contract, drains bank reserves, tightens liquidity, and hardens financial conditions. The former is expansionary, the latter contractionary.

However, it is possible for the two programs to coexist. A large central bank balance sheet is abnormal, and while perhaps acceptable in an emergency period like the pandemic, it is less so in normal times. QT helps restore a more typical balance sheet and affects long-term interest rates, helping preserve a more typical yield curve as short-term rates decline.

Bank reserves that remain excessively high with interest rates falling, can create credit conditions that are too loose which can distort asset prices. QT can rein this in. Employing QT even while cutting rates, signals the responsible normalising of policy.

And we have seen post-pandemic, an expanded balance sheet that has exposed the RBA to accounting losses due to a mismatch between the long-term bonds that it holds, and the short-term liabilities it has issued. Passive QT would allow the RBA to run-off its bond holdings at face value such that no capital loss is realised. Whereas active QT would crystallise any capital losses.

The challenge is to get the balance right. If QT is too aggressive, it can undo the effects of easing monetary policy. If gradual with a framing of normalisation as opposed to tightening, it can complement a rate-cutting cycle. The RBA approach.

Interestingly, central banks around the world are taking different approaches to QT, depending on the state of their economies. The Federal Reserve in the US is reinvesting some of the maturity proceeds, slowing down QT and the shrinking of its balance sheet. Meanwhile, the Bank of England is speeding up the process by selling some of its holdings before maturity.

Even though QE had existed in some form before, the sheer magnitude and speed with which it was employed by central banks during the pandemic was unprecedented. Now that the dust has settled, the painstaking task of exiting those extraordinary settings is proving to be a delicate balancing act. And it remains to be seen what lessons policymakers have learned in the wake of central bank accounting stresses, and what path will be taken when the next crisis arrives.

Balance sheet movements

Table 1a: Government raises debt ($1B from commercial banks)

	Treasury	RBA	Banks	Private sector
Assets	Deposits (RBA) +$1B		Reserves (RBA) -$1B	
			Bonds +$1B	
Liabilities	Bonds issued +$1B	Deposits (Treasury) +$1B		
		Reserves (Banks) -$1B		
Net Movement	$0	$0	$0	

Table 1b: Government raises debt ($1B from private sector)

	Treasury	RBA	Banks	Private sector
Assets	Deposits (RBA) +$1B		Reserves (RBA) -$1B	Deposits (Banks) -$1B
				Bonds +$1B
Liabilities	Bonds issued +$1B	Deposits (Treasury) +$1B	Deposits (Private sector) -$1B	
		Reserves (Banks) -$1B		
Net Movement	$0	$0	$0	

Table 2: Treasury spends into the economy ($1B to private sector)

	Treasury	RBA	Banks	Private sector
Assets	Deposits (RBA) -$1B		Reserves (RBA) +$1B	Deposits (Banks) +$1B
Liabilities		Deposits (Treasury) -$1B	Deposits (Private sector) +$1B	
		Reserves (Banks) +$1B		
Net Movement	-$1B	$0	$0	+$1B

Table 3a: QE — RBA buys bonds from banks ($1B)

	Treasury	RBA	Banks	Private sector
Assets		Bonds +$1B	Reserves (RBA) +$1B	
			Bonds -$1B	
Liabilities		Reserves (Banks) +$1B		
Net Movement	$0	$0	$0	$0

Table 3b: QE — RBA buys bonds from private sector ($1B)

	Treasury	RBA	Banks	Private sector
Assets		Bonds +$1B	Reserves (RBA) +$1B	Deposits (Banks) +$1B
				Bonds -$1B
Liabilities		Reserves (Banks) +$1B	Deposits (Private sector) +$1B	
Net Movement	$0	$0	$0	$0

Table 4: QT — RBA bonds mature ($1B)

	Treasury	RBA	Banks	Private sector
Assets	Deposits at RBA (maturity) -$1B	Bonds matured -$1B		
Liabilities	Bonds matured -$1B	Treasury deposits (maturity) -$1B		
Net Movement	$0	$0	$0	$0

***Note**: overlaying Table 4 with Table 1a or 1b, yields the reverse of Table 3a or 3b (i.e: QE reversed).*

Tony Dillon is a freelance writer and former actuary. This article is general information and does not consider the circumstances of any investor.