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Editorial

Mark it in your diary. In one month, on 9 May 2023 at 7.30pm, **Treasurer Jim Chalmers** will deliver the Federal Budget for 2023/24. Last year, an earlier 'election budget' was presented in April by **Josh Frydenberg**, and then Chalmers handed down a light interim Budget in October 2022. The next one will be more substantial, delivered by a Treasurer who has signalled his time in office will not be wasted. His [recent essay in The Monthly](#) on 'values-based capitalism' signalled his core mission to:

"redefine and reform our economy and institutions in ways that make our people and communities more resilient, and our society and democracy stronger as well".

But it was more than this. He quoted a Greek philosopher, **Heraclitus**:

"No man ever steps in the same river twice. For it's not the same river, and he's not the same man."

He wants to set the stage for major changes, although the more politically-pragmatic Prime Minister may curb his enthusiasm. Recent attempts at reform by Labor politicians have not ended well. It will be the biggest day of the Treasurer's career and he is no stranger to the process. He has worked on or responded to 16 budgets in government and opposition, and in *The Monthly*, he specified three objectives:

"First, an orderly energy and climate transition ...

Second, a more resilient and adaptable economy in the face of climate, geopolitical and cyber risks, unreliable supply chains, and pressures on budgets from an ageing population.

Third, growth that puts equality and equal opportunity at the centre."

Changes such as the new tax on super balances over \$3 million will be joined by other policies. We have already seen a windback in the LMITO (Low and Middle Income Tax Offset), worth a maximum of \$1,080 to 10 million people. We should expect an increase in the petroleum resource rent tax (PRRT). When Chalmers highlights "pressures on budgets from an ageing population" and "equality and opportunity", he wants a tax reform agenda.

For hints on where he may go, we can look at two recent speeches by his main adviser, **Treasury Secretary Steven Kennedy**. Speaking to the [Economics Legislation Committee](#) on 15 February 2023, Kennedy said:

"We expect fiscal challenges to persist over the medium term. Persistent deficits of around 2% of GDP are projected, with several payments growing faster than the economy. This includes interest on government debt, and growing expenditure on the NDIS, health, aged care, and defence. The projected structural deficit throughout the medium term makes the need for fiscal consolidation clear."

What is this Treasury-speak, fiscal consolidation? It is reducing government deficits and debts.

Then on 3 April 2023, Kennedy gave another speech, to the [Policy Research Conference](#) (yes, he enjoys a very exciting life!), where he said:

"This means the tax system should aim to treat individuals with similar economic capacity in the same way, raise and redistribute revenue at the least possible economic cost, and be simple to understand. Australia's tax system is not always consistent with these principles. For example, it is easier to reduce tax on income from passive sources than it is for salary and wage income."

Passive income include non-salary items such as rent, interest, dividends and capital gains. Kennedy has previously criticised techniques used in tax planning including trusts, companies and superannuation.

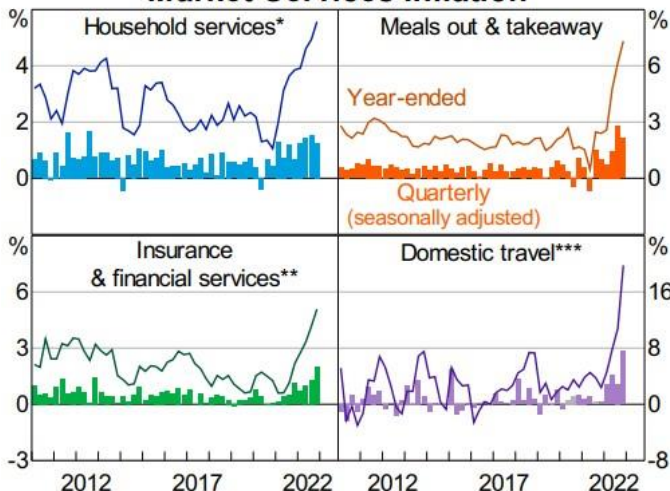
So Chalmers and Kennedy have much in common on the policy front, and they are the two big guns on 9 May 2023. Some type of transfer from investors to salary earners seems likely, and perhaps some changes to the Stage 3 taxes.

With the Government wanting fewer large balances in super, and pushing retirees to spend their savings, there is little likelihood that the halving of the minimum pension percentage that has applied since 2019/20 (for four financial years to 2022/23) will continue for another year. This will be a shock to some couples with \$1.7 million each in a super pension who recently turned 65, where their drawdown must increase from 2% (\$34,000 each, total \$68,000) to a whopping 5% (\$85,000 each, total \$170,000). That's a lot of money that cannot be recontributed to super. The percentage required drawdown rises to 9% from age 85 to 14% at age 95, although forced withdrawal at that age is probably doing the retiree a favour to avoid the 17% 'death tax'.

There are limitations to the value of personal or anecdotal evidence, especially as it may reflect idiosyncratic preferences rather than general experience. But one aspect of inflation that looks like a vast understatement is 'meals out and takeaway'. It is gobsmacking how quickly prices are rising in cafes and restaurants, far above the official statistics in my experience. I wonder how the numbers allow for 300% markups on wine, the offer of sparkling water without saying it costs \$7.50 each, upselling of \$6 bread and smaller portions (so-called 'shrinkflation'). Does the statistician recognise the increasing trend to charging for vegetables (the world's most expensive Brussels sprouts) separately which adds 25% to the cost of a main meal? The 15% surcharge last Saturday night for a public holiday came as an expensive surprise when we all thought the Easter holiday days were Friday and Monday.

I hope **Governor Philip Lowe** is not dining out much because if he sees these prices at packed restaurants, he will think the official numbers are underdone and most people have not received the message to manage their spending to control inflation. At least the travel numbers seem to reflect reality better.

Market Services Inflation



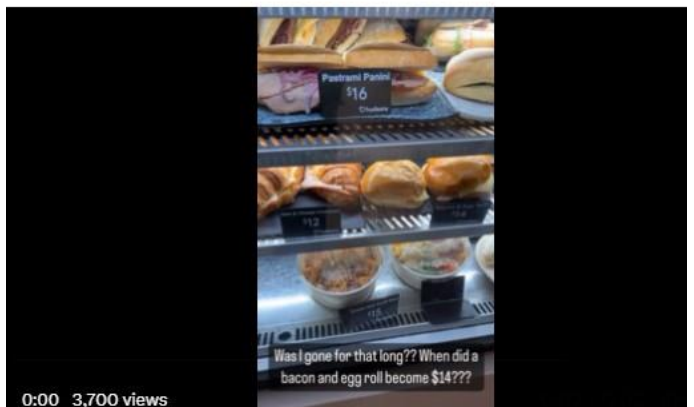
* Includes home cleaning, vehicle repairs, hairdressing, veterinary services, sports and leisure services.
 ** Excludes deposit & loans to June quarter of 2011.
 *** Imputed using headline CPI in the June and September quarters of 2020 and September quarter of 2021.

Sources: ABS; RBA

I am far from alone in wondering how takeaway and restaurant food suddenly became so expensive.

Veron Wickramasinghe @veronken · Apr 9

A bacon and egg roll in Melbourne is \$14 now, used to be \$7 #melbourne #australia #inflation



If there is one person in Australia who understands the consumer, it is **Solomon Lew, Chairman, Premier Investments** (owner of the Smiggle, Peter Alexander, Just Jeans and Portmans stores, among others) and in recently announcing good trading results, he said:

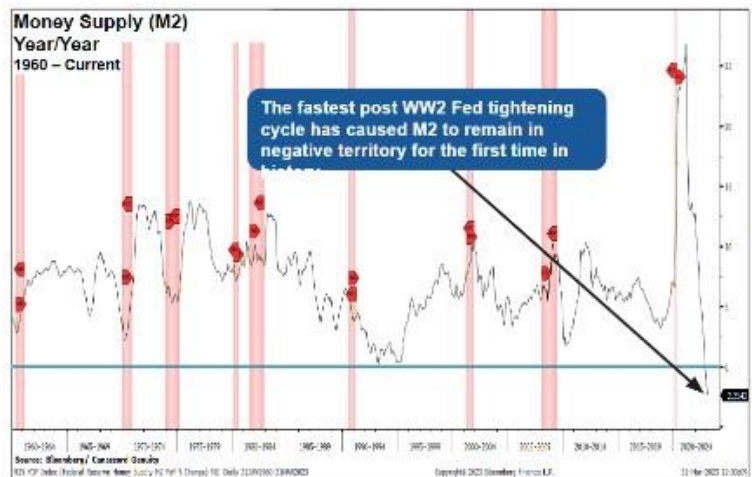
"I think the consumer is somewhat out of control...They're used to shopping, they've got used to going out to restaurants, got used to spending money...The aspirational demand for these products is just still out of control."

So stop spending if you want interest rates to come down.

These days, most economists and central bankers pay less attention to money supply (the sum of all of the currency and other liquid assets in an economy, including cash in circulation and all short-term bank deposits) than 30 years ago. This chart shows the extraordinary rise in M2 money supply in 2020 which monetarists argue caused the current inflation, and now, a fall to negative in the US for the first time in a rapid tightening of policy.

We look at the latest update from **Professor Tim Congdon** who warned us in 2020 that central bank policies would cause inflation, and now he explains the [consequences of money supply contracting](#). It's not good.

Credit Outlook, M2 (Money Supply) Historically Negative.



Jamie Dimon is the world's most influential commercial banker, and he recently published his annual letter to **JP Morgan** shareholders. We [summarise his major messages](#), and while the US economy is in decent shape at the moment, he explains why this time is different.

These warnings are backed up by the **International Monetary Fund (IMF)**, which this week predicted declining global growth, and in Australia, federal and state deficits until at least 2030. The government interest cost will consume 1.8% of GDP by 2028. In response, Jim Chalmers said:

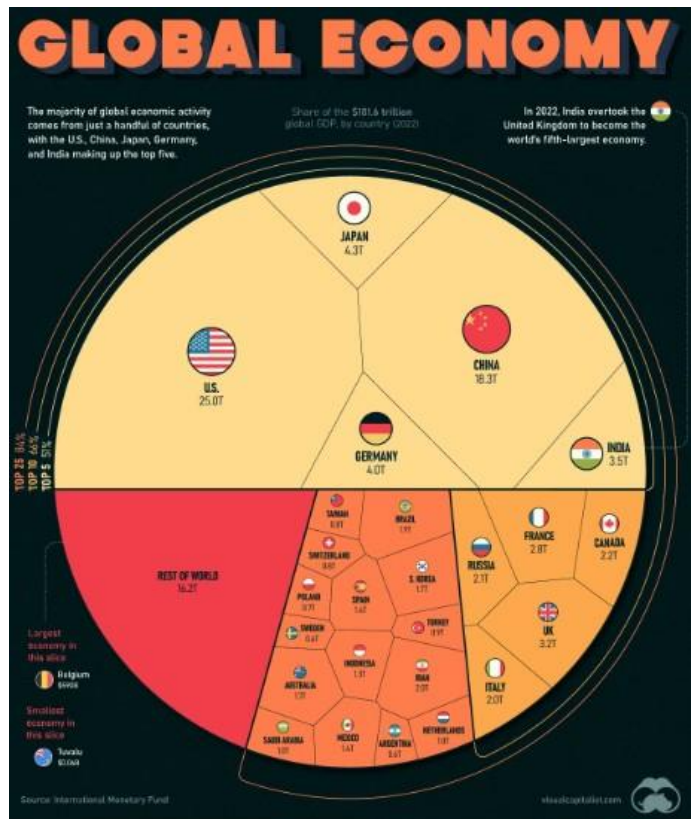
"All of these costs are putting pressure on the Budget. There is a structural problem and we need to deal with it."

For anyone wondering why analysts focus so much on the US, this chart shows of the US\$100 trillion in global GDP (according to the IMF in 2022), the US contributes 25%. Find Australia and see why we only make the news in the US when a shark bites someone or arranges a golf tournament.

Graham Hand

Also in this week's edition ...

Fund managers like to talk about the stocks they own and why. Yet, as **Dr Justin Koonin** and the team at **Allan Gray** point out, outperforming over the long term doesn't solely depend on the stocks you pick. It also depends on how you weight those stocks in your portfolio. Justin looks at how to construct a [successful stock portfolio](#).



Is there an advantage in being a member of a large super fund? Yes and no, say **Geoff Warren and Scott Lawrence**. Their research suggests that it's [not size that matters as much as how it's used](#). If a large fund can leverage the advantages of size, then members can be better off. But operating effectively at scale faces many challenges. In the end, what matters most is how well management executes.

Forget that conservative 4% withdrawal rule. Retirees can safely remove 15% of their portfolio's assets every year, for life. Morningstar's **John Rekenhale** uses this somewhat tongue-in-cheek statement to highlight a key point: that when evaluating investment yields or retiree-withdrawal rates, consider not just the numerator's percentage, but also [the denominator's effect](#). Doing so will lead to the only path that truly matters: the dollar trail.

An important part of anyone's life is deciding what happens to their assets when they die. We have received a few requests to write more about estate planning, including helping children into their own home. As an interim step, we are reprising an article by **Chris Cuffe**, who says he is surprised how little thought many people put into creating a lasting legacy. Chris goes through the [basics of estate planning](#) and how to create a fund for future generations.

Is the boom in ETFs set to slow down? **James Gruber** reports that a new survey of global ETF executives [suggests industry growth is unlikely to taper](#) any time soon. Investors here can expect vast array of new products in alternative strategies, cryptocurrency, ESG and active ETFs.

Lastly, in this week's whitepaper, **Capital Group** analyses the likely [impact of artificial intelligence](#) and the opportunities arising for investors.

Curated by James Gruber and Leisa Bell

Jamie Dimon on move from virtuous to vicious cycle

Graham Hand

Jamie Dimon, the Chairman and CEO of JP Morgan Chase since 2005, is the world's most influential commercial banker, and a billionaire in his own right due mainly to his massive stake in his own bank. He writes an annual shareholder letter which is closely followed, and the 2022 version was released last week. This article highlights the views of the man who runs the largest bank in the US, the biggest economy in the world.

Dimon goes from 'hurricane' to 'storm clouds'

A year ago, Dimon's high-profile worries about the impact of 'quantitative tightening' (withdrawal of liquidity by central banks) and the consequences of the Ukraine war on energy prices led to him saying,

"JP Morgan is bracing ourselves and we're going to be very conservative with our balance sheet."

His previous reference to a 'hurricane' is now 'storm clouds'. This time around, he cites US consumer strength, low unemployment and rising wages for lower-paid workers as reasons for more economic optimism. Now he says:

"Businesses are pretty healthy and credit losses are extremely low ... When one talks about risk for too long, it begins to cloud your judgment. Looking ahead, the positives are huge ... However events play out it, is likely that 20 years from now, America's GDP will be more than twice the size it is today."

A move from virtuous cycle to vicious cycle

When someone of Dimon's stature, who has seen most of the problems a major bank can face, says today is different, it's worth taking notice.

*"Of course, there is always uncertainty. I am often frustrated when people talk about today's uncertainty as if it were any different from yesterday's uncertainty. **However, in this case, I believe it actually is.**"*

Less-predictable geopolitics, in general, and a complex adjustment to relationships with China are probably leading to higher military spending and a realignment of global economic and military alliances.

Higher fiscal spending, higher debt to gross domestic product (GDP), higher investment spend in general (including climate spending), higher energy costs and the inflationary effect of trade adjustments all lead me to

believe that we may have gone from a savings glut to scarce capital and may be headed to higher inflation and higher interest rates than in the immediate past.

Essentially, we may be moving, as I read somewhere, from a **virtuous cycle to a vicious cycle.**" (my bolding)

Surprising numbers on the importance of interest rates

Dimon says that interest rates affect all things economic, and uses the following illustration:

The maths is "immovable and affects all". Dimon calculates that the Lifetime Net Present Value (NPV) of \$1 received every year is \$100 now when the discount rate is only 1%, but at 10% (which is the cost of funds for many non-investment grade companies now), the NPV is only \$10. Furthermore, 61% of the NPV value is in the first 10 years. Dimon explains:

Net present value (NPV) of \$1.00 annuity		
	Lifetime NPV	% NPV in first 10 years
1% interest rate	\$100	9%
10% interest rate	\$10	61%

"When you analyze a stock, you look at many factors: earnings, cash flow, competition, margins, scenarios, consumer preferences, new technologies and so on. and affects all.

In a rapidly rising rate environment, any investment where the cash flows were expected in the out years would have been dramatically affected – think venture capital or real estate development, for example. Any form of carry trade (effectively borrowing short and investing long) would be sorely disappointed. Carry trade exists not just in banks but is embedded and is silently present in companies, investment vehicles and others, including situations that require recurring refinancing."

Dimon is preparing JP Morgan to expect higher interest rates for longer.

Risks and opportunities in the global economy

He sees the need to restructure supply chains as benefitting Brazil, Canada, Mexico and friendly Southeast Asian nations. It suggests Australia is not high on his radar. He says the winners are materials that are essential for national security (rare earths, 5G and semiconductors), countries that protect critical industries (EVs, AI and chips) and companies that diversify their supply chains.

Inflation and interest rates do not worry him the most.

"I'm most concerned about large geopolitical events, cyber attacks, nuclear proliferation, large dysfunctional markets (partially due to poorly calibrated regulations; e.g., the U.K. Gilt and U.S. Treasury markets) and failure of other critical infrastructure."

Major banks will play a smaller role

Dimon expects a decreasing role for US banks in the global economy, with one reason being the increasing amount of regulation and legislation imposed. It's not difficult to read between the lines that Dimon is completely exasperated by his dealings with regulators, and frustration that a disaster such as Silicon Valley Bank can go undetected in advance. He laments what his business must endure:

"Regulations include stress testing, reporting, compliance, legal obligations and trading surveillance, among others. While the business is the first line of defense on all these issues, we also have 3,700 people in compliance, 7,100 in risk and 1,400 lawyers actively working every day to meet the letter and the spirit of these rules along with the final line of defense - audit.

Rules are constantly changing and/or being enhanced and are sometimes, unfortunately, driven by political motivations. Relationships with regulators can often be intense, and, recently, we have lost some terrific people in our firm because of this. Regulators know that when banks disagree, we essentially have no choice — there is no one to appeal to, and even the act of appealing can make them angry. We simply ask respectfully to be heard, but at the end of the day, we will do what they ask us to do."

He uses the following chart to show the increasing role of 'shadow' banks.

Size of the Financial Sector/Industry

(\$ in trillions)

		2010	2022	
Size of banks in the financial system	Global GDP ¹	\$ 64.9	\$ 89.5	
	Total U.S. debt and equity market	\$ 57.5	\$ 123.2	
	Total U.S. broker-dealer inventories	\$ 4.1	\$ 4.4	
	U.S. G-SIB market capitalization	\$ 0.8	\$ 1.2	
	U.S. bank loans	\$ 6.6	\$ 12.1	
	U.S. bank liquid assets ²	\$ 2.8	\$ 7.5	
	Federal Reserve total assets	\$ 2.4	\$ 8.6	
	Federal Reserve RRP volume	\$ <0.1	\$ 2.6	
Shadow banks	Hedge fund and private equity AUM ³	\$ 2.8	\$ 9.0	
	Top 50 sovereign wealth fund AUM ⁴	\$ 3.6	\$ 10.3	
	Total private direct credit ⁵	\$ 14.0	\$ 22.0	
	U.S. money market funds ⁶	\$ 3.0	\$ 5.2	
	U.S. private equity-backed companies (K) ⁷	1996	6.0	11.2
	U.S. publicly listed companies (K) ⁸	7.3	4.2	4.6
	Nonbank share of mortgage originations ⁹	2000	9%	62%
	Nonbank share of leveraged lending	54%	82%	75%

Sources: FactSet, S&P Global Market Intelligence, Assets and Liabilities of Commercial Banks in the United States H.8 data, Financial Accounts of the United States Z.1 data, World Federation of Exchanges, Pitchbook, Preqin and World Bank

AUM = Assets under management

GDP = Gross domestic product

G-SIB = Global systemically important banks

RRP = Reverse repurchase agreements

K = Thousands

The most surprising numbers here are:

- Non-bank share of mortgage originations, from 9% in 2010 to 62% in 2022.
- Number of US listed companies, from 7,300 in 1996 to 4,600 in 2022 (more on this below).
- And with that, the rise in hedge funds and private equity assets, from US\$2.8 trillion in 2010 to US\$9 trillion in 2022. Plus a massive increase in sovereign wealth funds.

While crying over spilled milk, the business is changing

And his bank needs to adjust, and he does admit to 'crying over spilled milk'. Changes include:

- Certain types of credit and loans have become less profitable because of the high levels of capital required, so this is better left to a nonbank while JP Morgan focuses on non credit-related revenue.
- It is increasingly difficult for banks to stay in the mortgage business, due to the costs of origination and servicing along with the complexity of regulations. "We are hanging on, continuing to hope for meaningful change."
- Increasing activity in low-capital revenue streams, such as trading, travel and offers in the consumer bank, wealth management and payment services businesses.

The decline of public companies

Dimon highlights that an increasing amount of economic activity takes place in unlisted companies, as the number of U.S. companies backed by private equity firms has grown from 1,900 to 11,200 over the last two decades, combined with the growth of sovereign wealth funds and family offices.

"Is this the outcome we want? There are good reasons for such healthy private markets, and some good outcomes have resulted from them as well. The reasons are complex and may include public market factors such as onerous reporting requirements, higher litigation expenses, costly regulations, cookie-cutter board governance, less compensation flexibility, heightened public scrutiny and the relentless pressure of quarterly earnings ... the pressure to become a private company will rise."

He criticises aspects of public reporting, ESG information and proxy voting which makes it easy to place disruptive directors onto a company's board, but who wants to go on a board anyway?

"Corporate governance principles are becoming more and more templated and formulaic, which is a negative trend ... The governance of major corporations is evolving into a bureaucratic compliance exercise instead of focusing on its relationship to long-term economic value. Good corporate governance is critical, and a little common sense would go a long way."

A unique and complicated future

While Dimon does not believe conditions are as bad as the GFC of 2008, and the 'here and now' includes many positives, he worries about the storm clouds.

Here & Now	>	In Front of Us: Storm Clouds Ahead	
<p>Still Good Economy</p> <ul style="list-style-type: none"> ■ Healthy consumer ■ Healthy jobs ■ Higher wages ■ Good credit ■ Home values up over 10 years ■ Recovering supply chain ■ Normalized interest rates ■ Healthy business 		<p>Abnormal QT & Fiscal Spending</p> <ul style="list-style-type: none"> ■ Consumer excess savings close to zero by year-end ■ Large quantitative tightening (QT) and other unknowns, reducing liquidity and triggering higher long-term interest rates ■ Higher fiscal spending ■ Higher climate spending ■ Lingering effects of fiscal stimulus ■ Possible persistent inflation, requiring higher interest rates ■ Maybe no end in sight 	<p>War, Energy Crisis, Trade, China</p> <ul style="list-style-type: none"> ■ Unpredictable war ■ Energy and food crisis averted for now ■ Disproportionate suffering imposed on poor people and nations ■ Inflationary trade adjustments ■ Economic alliances in flux ■ Potential for rising oil and gas prices ■ Huge economic and geopolitical strains

In the last three years, the Federal Government had a deficit of US\$3.1 trillion (2020), US\$2.8 trillion (2021) and US\$1.4 trillion (2022). This level of spending is unsustainable but there is no end in sight. QE created extraordinary liquidity and a surging money supply that pushed prices higher in all asset classes, but the consequences of winding back the central bank stimulus are unknown.

The governments of the world still have massive debts to finance, while the war means energy and food supply lines are not secure. It may lead to higher prices and large migrations of people, triggering another level of geopolitical dislocation.

Storm clouds, indeed.

The full JP Morgan Chase Shareholder Letter for 2022 is [here](#).

Graham Hand is Editor-at-Large for Firstlinks. This article is general information and does not consider the circumstances of any person.

Are you better off in a large superannuation fund?

Geoff Warren, Scott Lawrence

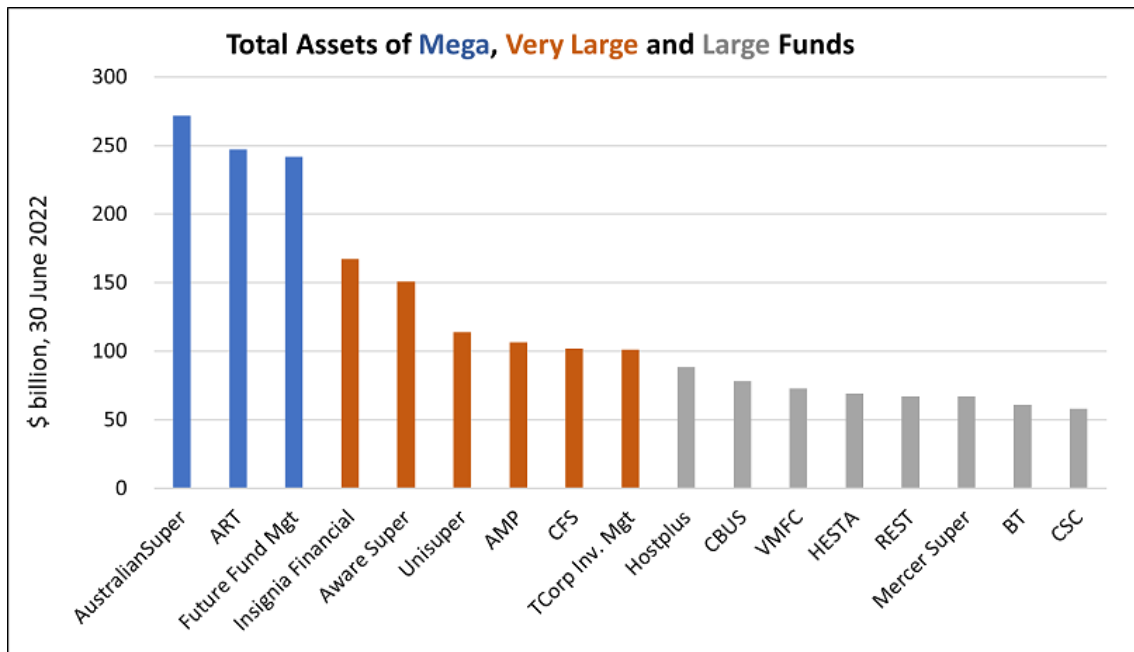
Underpinning the current wave of consolidation amongst Australian superannuation funds is the belief that it helps to be big. Is this really the case? Is there any advantage in being a member of a large super fund?

We address the question of whether large size benefits members in a recent paper [found here](#). Our answer is a 'definite maybe'. We don't think size matters as much as how it is used. If a large fund can leverage the advantages and limit the disadvantages of size, then members can be better off. However, operating effectively at scale faces many challenges. In the end, what matters is how well management executes, whatever the fund size.

Australia now has mega-funds

Consolidation combined with member contributions and switching has created some large superannuation funds. Australia sported 17 funds with assets under management (AUM) exceeding \$50 billion at June 2022

(see chart). Of these, 14 are superannuation funds. The biggest is AustralianSuper at \$272 billion, with Australian Retirement Trust (ART) not far behind at \$247 billion. The Australian superannuation industry has not only become systemically important – at \$3.3 trillion at June 2022 it stands at around 1.4-times both GDP and the ASX market cap – but now contains some seriously large financial organisations.



Advantages of large size

Size brings two types of advantage. First is that it can be used to lower costs per member, i.e. economies of scale. Second, large funds can do some things that smaller funds and private investors cannot, i.e. economies of scope.

Large fund size can lower unit costs in three ways.

First is by managing assets in-house. The cost of running an internal team is fixed to some extent, meaning that the cost of managing a particular asset mix declines as AUM increases relative to paying a basis point fee to external investment managers. AustralianSuper now manages 53% of their assets internally while Unisuper is at 70%. The percentage managed internally is rising at most larger superannuation funds in part with the intent of limiting fees which come under regulatory and public scrutiny.

Second, lower fees may be negotiated with external investment managers for larger mandates.

Third, some elements of administration costs are fixed and can be spread over a larger member base. Research confirms that size does indeed reduce per-unit costs in administration.

While lower investment expenses combined with administration efficiencies hold out the potential for lower fees for fund members, it may not work out this way. Large funds might instead use their size to do things that might benefit members in other ways.

On the investment side, large size facilitates investing directly in 'big ticket' unlisted assets such as infrastructure or commercial properties. This can help with diversification and may provide access to unique opportunities. However, investing in unlisted assets is costly, which limits potential for fee reductions. The key benefit is in finding additional return sources in private markets that are not available to smaller funds (or private individuals).

Large size might also support more and better *customised* member services where significant resources need to be committed. Ability to customise may be particularly important in offering retirement income strategies going forward, noting that retirees have widely differing needs. While tailoring to these differing needs might be more effectively done under financial advice, there are many retirees who may not take advice and will look to their superannuation fund to assist them. A larger fund should be better able to cater for such members where doing so effectively relies on high levels of functionality through expensive systems and staff.

Disadvantages and challenges

There are also downsides from being large. A key one is that the fund becomes constrained in taking investments that cannot absorb the larger licks of AUM required to make it worthwhile. This is the case in certain segments of the equity market, such as small-caps and even mid-caps. As a fund grows in size, it becomes harder to move an equity portfolio without incurring costs through 'price impact'. The investible universe also narrows simply because there are limits to how much can be reasonably held of particular stocks.

To explain, the table below shows the percentage that needs to be held of the three ASX stocks ranked 50, 75 and 100 by market cap at time of writing, assuming that the fund targets a 25% weight in Australian equities and a minimum holding equal to 2% of the equities portfolio. For example, to hold a 2% position in Pro Medicus, a \$100 billion fund needs to take 7.4% of the company, while a \$250 billion fund needs to take 18.4%. Once a fund gets to 'mega-fund' status, it is doubtful they could prudently invest in Australian mid-caps in sufficient volume to make a meaningful difference, let alone invest in small-caps.

Large Size Constraints in the Investment Universe

Super Fund Total AUM (\$ billion)	10	25	50	100	150	200	250
Australian Equities AUM @ 25%	2.5	6.3	12.5	25.0	37.5	50.0	62.5
Size of 2% Position	0.05	0.13	0.25	0.50	0.75	1.00	1.25
As percentage of market cap:							
Treasury Wine Estates (no. 50, \$9.8bn)	0.5%	1.3%	2.6%	5.1%	7.7%	10.2%	12.8%
Pro Medicus (no. 75, \$6.8bn)	0.7%	1.8%	3.7%	7.4%	11.0%	14.7%	18.4%
Dominos PIZZA (no. 100, \$4.6bn)	1.1%	2.7%	5.4%	10.9%	16.3%	21.7%	27.2%

Such investment constraints matter if these smaller areas offer the best opportunities. This can be often the case as they may be under-researched or offer illiquidity premiums. Smaller funds and private individuals face no such size constraints. Instead, their challenge is having the capacity to identify and access good opportunities. While this might be done through investment managers, there are fees, and talented managers need to be identified.

In addition, large organisations are more complex, less flexible, more bureaucratic, and can find it difficult to coordinate staff to work towards a common purpose. These elements may easily create dysfunction that can work to the detriment of performance. Also, surveys suggest that large funds are poorer at delivering a positive personal experience to those members who engage.

Large funds can be challenged to find sufficient attractive assets to fill a big portfolio. AustralianSuper, for instance, received inflows averaging about \$500 million per week during 2021-22. If there are insufficient attractive assets available, performance will be diluted. Whether this is the case depends on the pricing of large ticket assets, which in turn may vary with competition for those assets and market cycles.

Large funds need to construct operating structures to succeed at scale. This likely entails building an internal team with capabilities to invest in unlisted assets, noting that this area is somewhat specialised. Members will only benefit if the internal team performs, so that any cost savings are not wiped out by lower returns. Eventually there may be a need for overseas offices – AustralianSuper and Aware Super are taking this step. This only increases the degree of difficulty. Attracting and retaining skilled staff is particularly important, but tricky. Strong governance and a positive culture also matter.

Delivering enhanced member services can be challenging. It usually requires building systems, where projects tend to run over-time and over-budget and sometimes fail. No easy wins there.

In short, large size offers a mix of advantages and disadvantages along with many challenges. None of the benefits are guaranteed. Management has to execute well.

Potential systemic impacts

It is also worth noting that growth and consolidation in superannuation could have some systemic impacts. These are more likely to be detrimental, although unlikely to be major. Our concerns fall into two groups.

First, the financial system would be stronger and more vibrant if populated by superannuation funds of various sizes. Concentrating assets in a handful of large funds could dent market resilience and competition, both of which are enhanced by diversity of participants. Institutional presence could be hollowed out in markets that large funds tend to pass over, such as those providing capital to smaller companies. This matters as institutions help enrich the market environment through research, price discipline, monitoring and liquidity.

Second is what happens if a large fund gets into trouble. Large funds have more members and a bigger footprint. Any ructions might cause damage on a broad front. While a run on a fund seems unlikely, it is not impossible given that member choice allows members to switch at call. The Your-Future-Your-Super test only raises the risks on this front. The losers would likely be members within the fund, as it scrambles to unwind its positions.

Capability matters more than size

Something of a 'size is good' mantra has been going around parts of the superannuation industry. However, size is not an automatic win. One consideration for members is whether a superannuation fund offers capabilities or services of value to them, ideally at a competitive fee.

Large funds have the potential to deliver aspects such as lower fees, enhanced exposure to unlisted assets and a richer set of services such as retirement strategies. But an even more important consideration is whether the fund will deliver. In the end, the capability of its management probably matters most of all.

Geoff Warren is an Associate Professor at the [Australian National University](#) and a Research Director at the [Conexus Institute](#). This research is conducted with [Scott Lawrence](#) of Lawrence Investment Consulting. This article is general information not personal financial advice.

Falling money supply points to recession, and maybe severe

Tim Congdon

Introduction

Professor Tim Congdon is Chair of the Institute of International Monetary Research at the University of Buckingham. Firstlinks has featured his work several times, starting at the height of the pandemic on 15 April 2020 in [Magic money printing and the reality of inflation](#), when he said:

*"What is wrong with the supposed 'magic money tree'? The trouble is this. When new money is fabricated 'out of thin air' by money printing or the electronic addition of balance sheet entries, the value of that money is not necessarily given for all time. **The laws of economics are just as unforgiving as the laws of physics. If too much money is created, the real value of a unit of money goes down ... The Federal Reserve's preparedness to finance the coronavirus-related spending may prove suicidal to its long-term reputation as an inflation fighter ... If too much money is manufactured on banks' balance sheets, a big rise in inflation should be expected.**"*

He was correct about inflation but most people, including central bankers, ignored him. We revisited his opinions, [most recently here](#), at the beginning of 2023. This is an edited extract from a video update in march 2023.

In developments in the global monetary scene. I want to focus today only on the three Western economies, the United States, the Eurozone and the UK. I'll say one or two things about China, India and Japan.

The message will be short and sweet, although perhaps not as sweet as it might be, because in fact, the news is rather worrying.

You will remember that back in early 2020 I pointed out the explosion in money growth that was then occurring in these economies, in the United States, the Eurozone and the UK, a bit elsewhere, but particularly really in those three economies. And we warned about a coming inflationary boom and rising inflation as economies return to normal after the COVID pandemic.

Money growth boom has collapsed

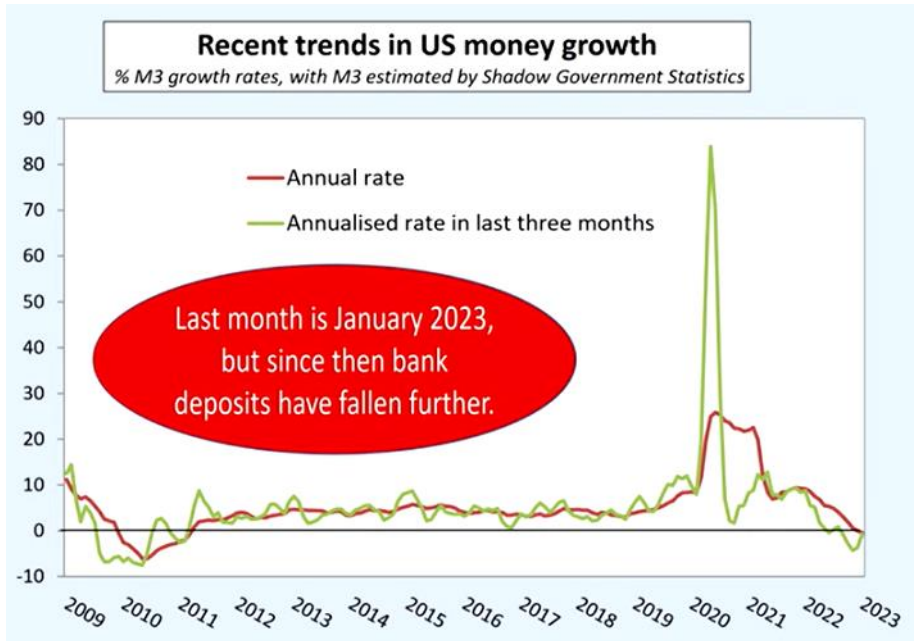
Today, the situation is radically different. We have had the inflation that was correctly forecast. Now, we have a collapse in money growth. And in the last few months, the quantity of money has actually been falling in all three of those places, the US, the Eurozone and the U.K. And even in the US, the change in money is not just a fall of a few months, it's fallen the whole year.

(This extract will not include the sections on the UK).

The coming recession in the US

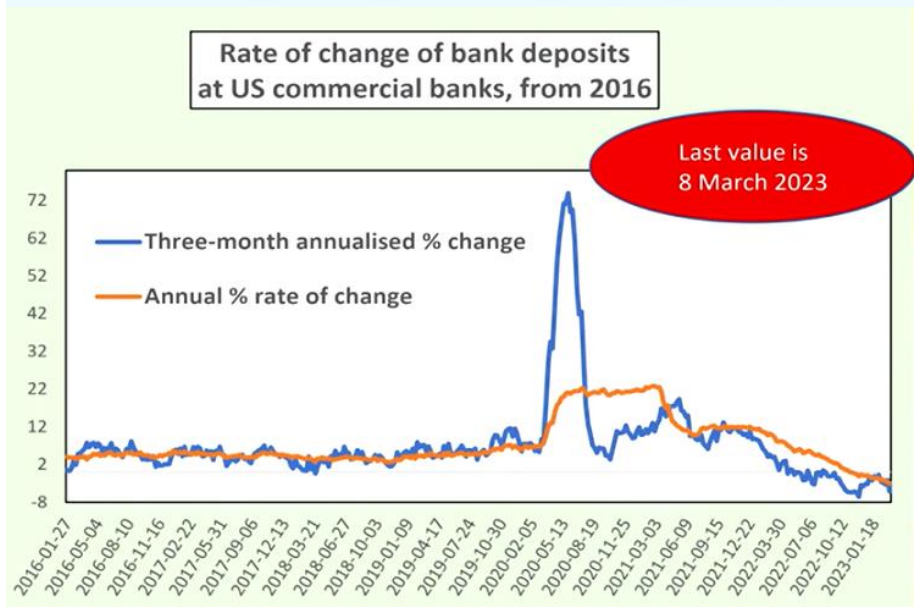
First, let's look at the United States since just after the GFC around 2009.

Back in 2009-2010, we had contractions in money in the US, followed by a period of stability. And then there was an explosion in 2020. On the 12-month measure, that's the brown line, the high money growth rolled through into 2021. It then comes down, and in the last few months, money has been actually contracting with the brown line finally going negative in the opening month of 2023. This chart finishes in January.



We do have numbers for bank deposits in February and two weeks in March. That's the quantity of money, which includes bank deposits and notes and coins. The detailed data on deposits is more frequent than M3.

What these figures show is that the quantity of money has continued falling, as deposits dominate money (M3). So, this is a continuing trend. Roughly speaking, money is going down at around about 0.25% to 0.5% a month. In the US Great Depression of the early 1930s, money was falling by about 1% a month. It's not that disastrous at the moment because there is still this cushion, an overhang from 2020 and 2021.



But the way things are going signals a recession and potentially quite a bad one.

These numbers are, of course, very different from what I was talking about three years ago, the boom/bust cycle, but it shows total incompetence on the part of the US Federal Reserve. But inflation coming down and probably, in 2024, coming down towards the 2% figure, which is the target that central banks have in mind these days.

Eurozone also negative over next few months

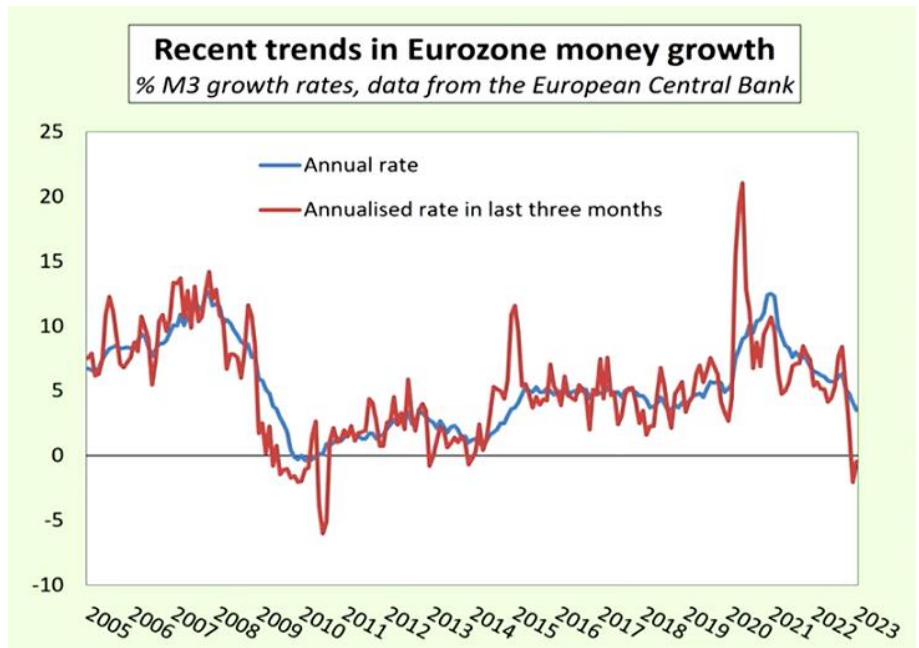
The Eurozone for much of last year was very different. In fact, rather high money growth carried on until the final months of last year, then collapsed. Quite why this happened, I'm not sure, but that's what the data show.

The 12-month change is still positive, with the blue line at about 3% or so, but well down from the figures over 10% in 2021. And the way things are going, this will probably go negative in the next three to six months.

This chart goes back to 2005 and the rapid growth of money in 2006-2007. There was a boom in the Eurozone then, particularly in the so-called Club Med countries – Spain, Portugal, Italy and so on. Then came a plunge, and a long period of rather weak money growth down at about 1% or 2% a year when in fact, the Eurozone, unlike the USA or the U.K. had a second recession.

Then 5% a year in the late 2010s, stable growth, low inflation, followed by a rapid growth of money in the COVID period, and now a collapse.

So you can see the connection between what's happening to money and what's happening to the economy, and this again is telling us that a recession is in prospect in the Eurozone. Some countries, in fact, have had negative quarters or even two quarters, but not as yet for the entire Eurozone.



A simple and obvious warning

This is a relatively simple, relatively obvious warning. What happened in 2007 to 2008 was that the banks got the blame. In autumn 2008, the powers at the G20 governments, their finance ministers, the central banks, the Bank of International Settlements and the International Monetary Fund decided that the banks must have more capital relative to their risk assets. There was a big rise for around about 60%-70% in the banks' capital requirements per unit of risk assets, per unit of loans to the private sector.

As far as whether you think that's desirable, the effect on economies was catastrophic because the banks started to pull in loans, to sell securities, to reduce their risk assets because they were required hold much more capital relative to those assets. And the result of that was to aggravate, to intensify the falls in the quantity of money, the falls in bank deposits.

To avert another Great Depression, the central banks then organised quantitative easing (QE) programmes where they bought assets from non-banks which increased the deposits held by non-banks and that did deal with the problem.

However, with the failure of SVB Bank, the absorption of Credit Suisse into UBS and so on, talk is of another round of increases in capital asset ratios for the banks, not just the banks that are delinquent. That will make any coming recession even worse.

That's my sombre message this time

I'm sorry it's a bit gloomy. One has to be direct about these things. I haven't dealt with the non-monetary theories of inflation that have been going around, but they are wrong. I have outlined here the move to contractions in the quantity of money and the risks that these will get worse if the regulators blunder as they did in 2008.

This is an edited transcript of the video: [IIMR March 2023 Money Update: 'Quantity of money falling in the US, Eurozone and UK'](#). By T. Congdon.

Professor Tim Congdon, CBE, is Chairman of the [Institute of International Monetary Research](#) at the University of Buckingham, England. Professor Congdon is often regarded as the UK's leading exponent of the quantity theory of money (or 'monetarism'). He served as an adviser to the Conservative Government between 1992

and 1997 as a member of the Treasury Panel of Independent Forecasters. He has also authored many books and academic articles on monetarism.

This article is general information and does not consider the circumstances of any investor.

Using the Kelly Criterion to build a successful stock portfolio

Dr Justin Koonin

As a fund manager, we like to talk about the stocks we hold: what the companies do, why they look attractive and how they fit with our investment philosophy. Stock picking is key to our investment philosophy. Outperforming over the long term, however, does not solely depend on the stocks you pick. It also depends on how you weight those stocks in your portfolio.

While there are many ways to construct a portfolio, our preferred method is to weight stocks so that those we think have lower downside risk, both in absolute terms and relative to the potential upside, have a higher weight.

This article explains why we choose to do this: exploring some theoretical underpinnings in the Kelly Criterion; explaining how it might apply to portfolios; some practical limitations in the real world and how we use this approach in the Allan Gray Australia Funds.

Lessons from a coin toss

Suppose we play a game in which we toss a fair coin (50% chance of heads or tails) once a month for 20 years, a total of 240 coin tosses.

We start with \$100 in the bank and, for each coin toss, we are allowed to bet as much of our current pool of funds as we would like.

For every \$1 we bet, if the coin toss comes up heads, we win exactly the amount we staked as profit, so we end up with \$2 in total. If the coin toss comes up tails, we lose half of our stake and would end up with 50 cents.

Sounds like a pretty good game to play, doesn't it? Even odds of winning and losing, but the amount you win is double the amount you lose. So why not bet everything you've got? After all, on average, for each dollar you bet, you will end up with \$1.25 (there is a 50% chance of winning \$1, and a 50% chance of losing 50c). The more you bet, the better, right?

If things go your way and a lot of heads come up, you could end up as rich as Warren Buffett. Indeed, there is around a 3% chance that your initial \$100 will be worth more than \$100 billion after 20 years.

Unfortunately, if there are a lot of tails in the series of coin tosses, this strategy fares badly. In fact, there is about a one-in-three chance that you will have less than \$1 left after 20 years, and a greater than 50% chance you will end up with no more than the \$100 you started with.

Suddenly, betting the farm on every coin toss seems risky. It turns out that the average return is distorted by a small minority of outliers.

What about the other extreme? If you bet zero on each coin toss, you will end up with \$100 at the end of 20 years. That's a good way to limit the downside, but \$100 might only buy a couple of decent hamburgers in 20 years – probably not a sensible retirement strategy.

The Kelly Criterion

It was American physicist, John Kelly, who figured out the optimal strategy for the coin toss scenario, as well as far more complicated examples, in the 1950s.

His work established the so-called 'Kelly Criterion', which describes the size of the stake that maximises the expected geometric growth rate of your wealth over time or, equivalently, the amount of money you will have at the end of a given period.

In the case of the coin toss game, the optimal stake at each toss of the coin is exactly half of what is in your wallet. Following this strategy, the chance that you will end up with less than the \$100 you started with is only

0.4%, compared to the one-in-two chance with the all-in strategy. There is a greater than 50% chance of amassing more than \$100 million at the end of 20 years, and an 11% chance of amassing more than \$100 billion! Position sizing changes the payoff profile dramatically.

What you sacrifice is the tail-end chance of earning astronomic returns (trillions and higher) with a run of extreme luck in the all-in strategy, but most people would regard the range of possible outcomes as very attractive.

We simulated playing this game a million times, with stakes of 20%, 50% and 100% of our wallet at each stage. You can see the results in the table.

While it will not always be true that allocating a 50% stake gives the best outcome, in our simulation, this allocation gave a better outcome than placing a 20% stake roughly 95% of the time, and a better outcome than placing a 100% stake over 99% of the time.[1]

One striking aspect about following the Kelly Criterion is that it leads to concentrated bets. In the above game, a 50/50 bet where you lose half your stake if you are wrong but win the entire amount you stake if you are right, dictates betting 50% of your wallet on each bet.

To take another example, for an even money bet (which will return exactly the amount you staked as profit if you win but will cause you to lose the full amount staked if you lose), and where the odds of success are 60%, the Kelly Criterion suggests betting 20% of your wallet.

Range of outcomes			
Final wealth	20% stake	50% stake	100% stake
<= \$1	0.00%	0.02%	32.55%
\$1 to \$10	0.00%	0.10%	9.76%
\$10 to \$100	0.00%	0.29%	10.27%
\$100 to \$1k	0.07%	0.79%	5.11%
\$1k to \$10k	1.58%	2.86%	9.79%
\$10k to \$100k	11.95%	4.69%	4.49%
\$100k to \$1m	33.84%	7.86%	7.99%
\$1m to \$10m	35.96%	15.95%	6.48%
\$10m to \$100m	14.33%	14.89%	2.60%
\$100m to \$1b	2.15%	15.24%	4.11%
\$1b to \$10b	0.11%	17.26%	2.80%
\$10b to \$100b	0.00%	9.08%	1.00%
> \$100b	0.00%	10.97%	3.06%

Applying the Kelly Criterion to an investment portfolio

If we think through the lens of the Kelly Criterion, the process of a fund manager selecting stocks is very similar to playing a succession of games like those in the example.

When fund managers think about how to construct a portfolio, they can choose different ways to size their positions. Some of these include:

OPTION 1

Considering a trade-off between expected returns and the variance (or volatility) of the stock price. This is standard Markowitz modern portfolio theory. This theory has been popular in academic literature for the past several decades, but is arguably less useful (and less used) in practice.

OPTION 2

Buying more of the stocks where they think the stock has greater upside. Seems logical – investing more in the ideas you think will win big.

OPTION 3

Buying more of the stocks where they think the downside is low, both in absolute terms and relative to the upside.

At Allan Gray, we tend to construct our portfolios using option 3.

This may seem counterintuitive. Why not use option 2 and weight more to the stocks that have greater upside potential?

The Kelly Criterion shows us why that may not be optimal. If the downside is large, or the probability of that downside is large, then Kelly would suggest investing a small fraction of your capital, because repeating this across many stocks over many years would result in a suboptimal outcome.

By using option 3, we essentially focus on how much we could lose relative to how much we could gain. If we think the downside is small in both relative and absolute terms, we will consider allocating a larger weight. And knowing that even getting 60% of our calls correct is probably quite a good outcome, the probability that the investment increases or decreases in value may be near equal.

Practical limitations and general lessons

While this is all nice in theory, the real world is messier than the idealised example we use to illustrate the Kelly Criterion. For example:

- You cannot place the identical trade successive times
- Many investments are made in parallel
- There are friction costs, such as trading fees and tax, that will eat into returns
- The stocks we invest in can be correlated, which changes the portfolio's risk profile
- News flow can change the upside and downside potential continuously
- The opportunity to buy a stock at your ideal price may not last long enough to build your position
- There may be self-imposed constraints that try to reduce some measure of risk, e.g. not having any individual stock be greater than a certain weight in the portfolio
- It is usually not possible to precisely know the probability of success in advance.

The theory provides a few useful lessons

Some applications for portfolio construction include:

- Consider having a more concentrated portfolio. Application of the Kelly Criterion lends itself to larger weights than you might expect. This is not the way most fund managers behave; most are overly diversified, perhaps in part because incentive structures are not aligned to reward the potential volatility of such a strategy.
- Sense-check position sizes. When viewing our portfolio, we always ask ourselves: have we got a greater weight in stocks that have a lower downside risk – both absolute and relative to upside – and, if not, what can we do about it? Restraint can be better than regret.
- Hit rate (the number of stocks in a portfolio that outperform) isn't everything. You can outperform with a low hit rate (providing the upside of each outperforming investment is large) and you can underperform with a high hit rate (if, for example, your position sizing does not work out).

In summary, maximising the chances of long-term outperformance depends on the position size, as well as the stocks that we pick. Our contrarian investment strategy helps us with stock selection, but the somewhat 'hidden art' of portfolio weighting contributes no less to how we perform in the long term.

[1] For some of the details behind this simulation, see [this article](#) from the CFA Institute.

This version was first published on 10 February 2023.

Dr Justin Koonin is an Analyst at [Allan Gray](#), and is also a board director, philanthropic adviser, academic, community advocate on health and human rights, and holds several expert roles with the World Health Organization in global health.

Additional contributors: Simon Mawhinney, Managing Director and Chief Investment Officer; Dr Suhas Nayak, Analyst and Portfolio Manager; and Julian Morrison, Investment Specialist.

Planning to make your money last forever

Chris Cuffe

(This article was written in 2015 but we are republishing it following requests for articles relating to estate planning or giving money to children or others).

"A man's dying is more the survivors' affair than his own." – Thomas Mann

"The beginnings and endings of all human undertakings are untidy." – John Galsworthy

While these quotations from Mann and Galsworthy are usually correct, it doesn't have to be that way. Surely an important part of anyone's life is deciding what happens to their assets when they die. It never ceases to amaze me how little thought people put into estate planning and creating a lasting legacy. It's bad enough that an estimated 45% of Australians do not have a valid will, and most have not made a binding death nomination for their superannuation. But how many people put even a fraction of the time into deciding what should happen with their money as they do in accumulating it in the first place? Neat clichés like 'the dead don't care' do not resonate with me – perhaps that is just the forward planner in me and I may be an outlier.

Putting aside your religious beliefs, let's assume you have departed this world and you are looking down from the heavens on the distribution of your hard-earned money to your loved ones. As Shakespeare wrote in Hamlet, *"What dreams may come, when we have shuffled off this mortal coil, must give us pause."* The children are squabbling over whether to sell the family home, there's a stepson you hardly knew claiming his rights, and your spouse has met a new partner with five screaming kids from a previous marriage. Your sister says you told her you would always support your siblings, and there are family members in your old house grabbing your stuff while they can.

You think you're in heaven and you've gone to hell!

Address the basics

In thinking about estate planning, I believe it is essential that the following basics are covered while you are alive and have your marbles intact:

- Make sure your wishes are clear, unambiguous and in writing. Written instructions usually mean a will, but in addition to this I like to have a one to two page 'plain English' summary (that your solicitor should tick for consistency with the will) to ensure there is no misunderstanding.
- Ensure you cater for all situations, such as if you die, your partner dies, you both die together, providing for the children's needs if they are under 18 (such as who will look after them and whether the carer should be paid).
- 'Complete the package' and ensure you have an Enduring Power of Attorney (for money/finance decisions) and Enduring Guardian (for health decisions) appointed as well as having a documented Advance Care Plan (dealing with resuscitation, organ donation, and where you wish to be cared for when the time for natural dying comes).
- Ideally, discuss your intentions with your family, so they have a chance to contribute and understand before you are no longer there to influence.
- Develop a strategy that ensures your estate is well-managed by people you trust who know what to do with wealth.

Beyond these basics, I want to focus on the possibility of both creating a multi-generational legacy and enjoying giving while you're alive.

Create a fund for future generations

It's natural to care for your own children and grandchildren who you know and cherish while you are alive. But what about their children? What can you do that might also benefit future generations of your descendants?

If your resources are sufficient, one idea is to establish a trust that has the purpose of meeting particular costs of your direct descendants (being your children, your children's children, their children and so on). The costs that come to mind are what I think of as '*must have safety-net costs*' such as medical insurance, trauma insurance, school education and tertiary education. Plan for only 50% of the tertiary education costs so the recipient has 'skin in the game' and an incentive to complete the chosen study.

Imagine the satisfaction of knowing that whatever happens to the family finances, your great grandchild can be confident of a good education and decent health. Who knows what the future brings, as many a family fortune has been destroyed by poor investing or wasteful spending. With Australia facing decades of increasing budget deficits, both health and education expenditure will be targets. We may head more down the US path of user pays and denial of services. While it is hard to estimate what future school, university and hospital costs may be, it's highly likely to be much higher than today.

The trust should have independent trustees and avail itself of investing expertise, so the money lasts as long as possible into future lifetimes (and who knows, future descendants themselves may end up having the means to contribute to the trust so that it lasts longer). In practical terms, any descendant wishing to have such costs met would apply to the trustees. You could even 'force' another gift on them (one that I am passionate about) and insist that any recipient must first complete a basic course in financial literacy before they are eligible to participate in the trust.

Imagine the day your daughter's grandchild graduates from university to become a doctor and makes a toast to you (long past!) for helping to make the event possible through vision and generosity.

Help your children while you're alive

If you started having children at 30 and you live until you're 90, chances are your children will be retired when they inherit your estate. If they've done well already, they probably don't even need the money, and all you are doing is giving more money to an already financially secure person.

If you live in the crazy property markets of the east coast of Australia, and your children want to live in a similar location when they leave home and perhaps be near you, then it is likely that they will struggle to buy their first home given the prohibitive entry level to now get into the property market.

Assuming your own financial needs are met, what better way to help your children than to assist them with their first purchase. Consider gifting the deposit or some type of interest free loan so the capital can one day be recycled again or protected in situations of divorce.

It is common to arrange a 'gift' as a loan as regardless of how much you love the partner of your child now, circumstances often change. Contact a solicitor to draw up the loan contract properly as it may determine the outcome of your 'gift' in years to come, and you probably do not want half of it leaving your son or daughter and financing someone else's dream home.

Leave an enduring gift to society

[Buffett once said in his letter to the Gates Foundation:](#)

"I want to give my kids just enough so that they would feel that they could do anything, but not so much that they would feel like doing nothing."

I am a big fan of this quote.

Again, if your resources are sufficient, once you have provided for your family, to me there is no better way to leave an enduring gift to society than to set up a Private Ancillary Fund or establish a sub-fund with a Public Ancillary Fund. Any money put into such vehicles is fully tax deductible. The money is invested within the ancillary fund (which is a tax free environment) and from there a minimum of around 5% per annum of your account balance must be donated to charity. Your investment in the fund can last for many years, spinning off a never-ending stream of donations for charity.

[I'll declare an interest here, as I am the founder and Chairman of [Australian Philanthropic Services](#), a not-for-profit organisation that specialises in setting up and administering such vehicles.]

It was not until I reached the age of around 50 that the thought of mortality really entered into my thinking. Perhaps this was from watching my own parents age. That realisation comes with greater attention to how I can help people while I am alive and after I cross that great try line in the sky!

Chris Cuffe is Portfolio Manager of the charitable trust Third Link Growth Fund and Chairman of Australian Philanthropic Services. Chris is involved with many other groups as a director, chairman and investment professional. This article is general information and does not consider the circumstances of any person. The views expressed are his own and they are not personal financial advice.

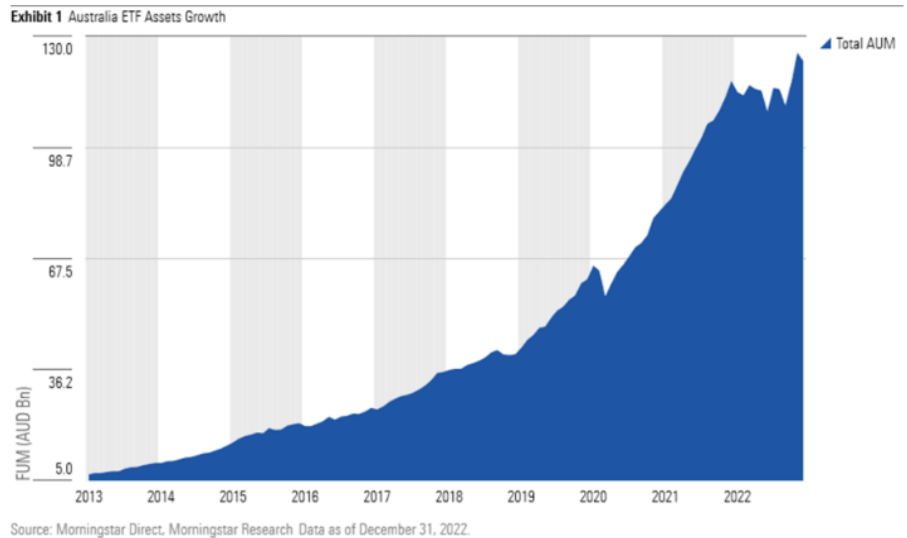
Global ETF trends coming soon to Australia

James Gruber

In Australia and globally, the popularity of Exchange Traded Funds (ETFs) stems from several factors including low cost, accessibility and the vast array of options across asset classes.

Despite this high profile, ETFs are not the largest managed product in Australia. That honour goes to platform-related products, such as master trusts and wraps (which mainly hold managed funds), which are vastly bigger. The market size of these products at \$920 billion is much larger than that of ETFs at \$130 billion and Listed Investment Companies (LICs) at \$48 billion.

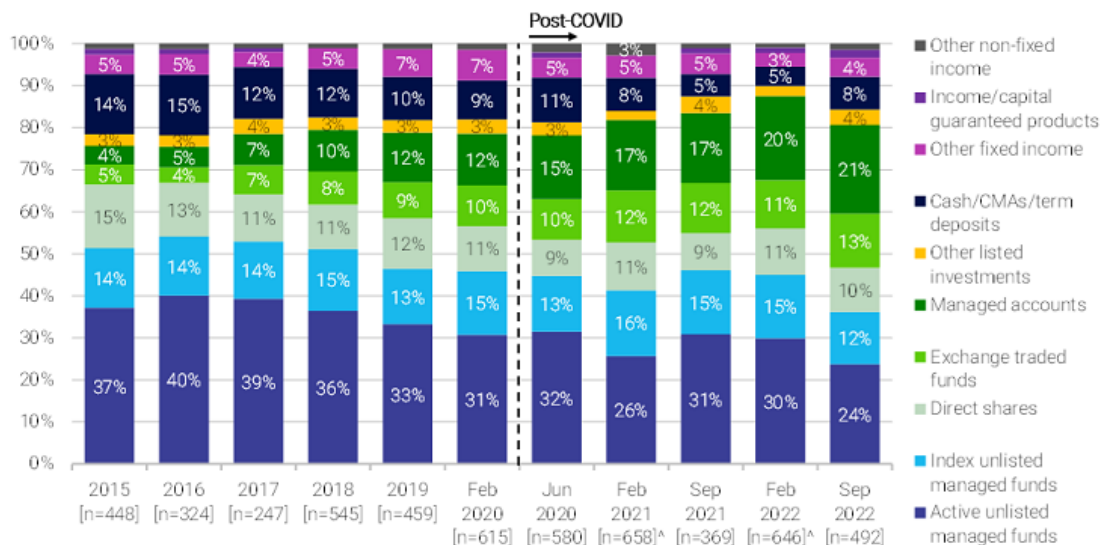
There's no doubt that ETFs are growing rapidly though and taking market share. Over the past decade, the ETF market in Australia has grown about 26x.



Investment Trends regularly surveys financial advisers on their client flows, and the chart below shows ETFs and managed accounts are the categories that are gaining share.

Trend: Allocation of new client inflows (detail)

Q28 In the last year, roughly what proportion of the new client inflows you advised on went into each category?
Averages among financial advisers



*Source: Investment Trends 2022 Managed Accounts Report

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The growth of ETFs has attracted intense competition. In February 2023, Blackrock announced it would cut the fees on two of its ASX-listed ETFs, including its popular iShares Core S&P/ASX 200 ETF. The move takes its annual fee from 0.09% pa to 0.05% pa. A day later, Betashares slashed the management fee on its Australia 200 ETF from 0.07% pa to 0.04% pa.

New global ETF industry findings

PwC has released a [new survey of 70 ETF executives](#) from across the globe detailing key trends in the industry. The report has four findings:

1. The global ETF market size is expected to increase by 63% to US\$15 trillion in 2027.

Thanks to a large market correction, the asset management sector experienced significant fund withdrawals in 2022, with US\$1.4 trillion of net outflows from mutual funds globally.

ETFs bucked the trend with net inflows of US\$779 billion, the second highest net inflow on record. As at end-2022, global ETF assets under management (AuM) stood at US\$9.2 trillion.

This strong performance is attracting both new fund launches and the conversion of mutual funds and separately managed accounts into ETFs. Many of the new entrants are large asset management groups that had previously shied away from the ETF market.

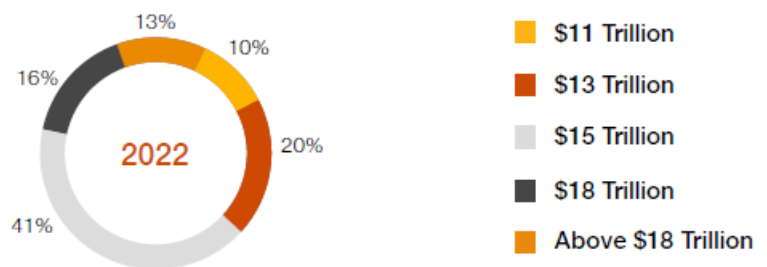
The big question is: can the extraordinary growth in ETFs continue?

Unsurprisingly, ETF executives are upbeat. Seven in 10 respondents expect global ETF AuM will increase to at least US\$15 trillion by June 2027. That would require a compound annual growth rate (CAGR) of 11.8% compared with the 13.7% CAGR achieved over the past five years.

Almost 30% of executives are even more bullish on industry prospects, forecasting the global ETF market could reach US\$18 trillion by 2027.

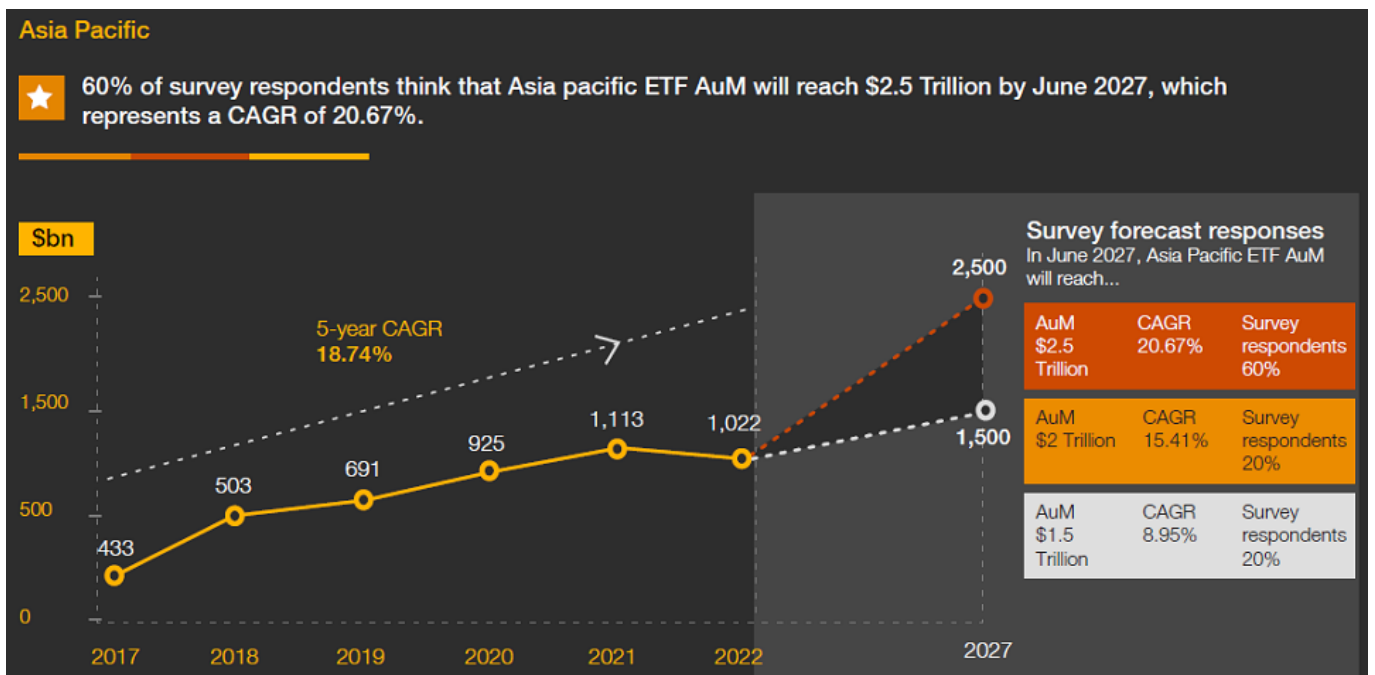
Exhibit 1: Views on prospective growth

Survey respondents' growth projections for global ETF AuM by June 2027



Source: PwC 2022 Global ETF Survey

The executives are most positive on the Asia Pacific region, where most expect growth to rise by more than 20% annually.



Are these forecasts realistic? They might be as ETFs are only 11% of equity assets in the US and just 2% in Asia. The percentage share of fixed income assets is even smaller, at under 3% in all regions. Plenty of room for growth.

2. Product innovation is key

Traditional passive equity (about 75% of global ETF AuM) and fixed income (around 20% of AuM) remain the key segments of the global ETF market.

Fixed income saw significant inflows in 2022 as yields moved higher, attracting renewed interest from both retail and institutional investors. In terms of inflows, fixed income's share was 32% last year versus 23% the year before. Six in 10 survey respondents think fixed income will continue to take market share.

Yet the survey also suggests that executives are wary that an over-reliance on traditional plain-vanilla type products could put them at risk of disruption by competitors with greater scale, brand awareness, and technology. Therefore, they're looking to spend more money on internal processes, systems, and people to build more complex and specialised types of ETFs.

3. New areas of growth

The managers see three areas to drive considerable growth:

- Active ETFs. Net inflows into active ETFs were US\$102 billion in 2022 and the industry executives believe there's more to come. The bullish sentiment is especially apparent in the US, where active ETFs are already well established, at around 5% of overall ETF AuM.

- European optimism. ESG ETFs make up more than 21% of ETF AuM in Europe, and survey respondents expect that level to rise. The expectation of new products launches in ESG isn't shared as much in other regions such as the US and Asia.

- Alternative strategies and cryptocurrency. The survey respondents cite both alternative strategies and crypto/digital asset ETFs as the nascent markets to watch. With cryptocurrency, the positive view is much more apparent in Asia and Europe, where 78% and 60% of respondents respectively anticipate significant demand ahead. US managers are less upbeat. For alternative strategies, executives in Asia and Canada are the most bullish, while those in Europe are much less so.

Exhibit 3: Expected significant demand for active ETFs over the next two to three years

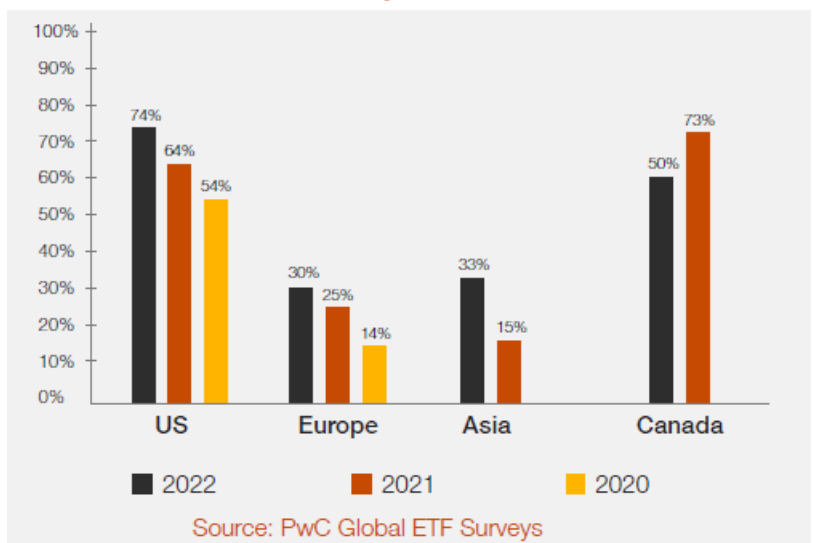
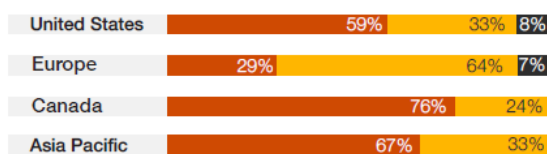


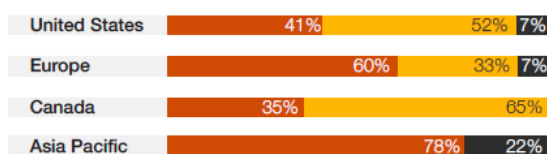
Exhibit 7: Openings for white space innovation and expansion

Where do you think there is white space/opportunity for more product innovation/growth for ETFs?

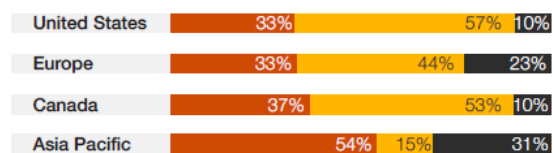
Alternative Strategies



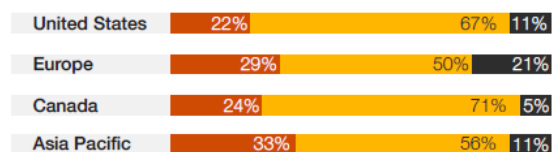
Digital assets



Derivative Strategies



Commodities



Legend: Significant demand (orange), Moderate demand (yellow), Negligible demand (grey)

Source: PwC 2022 Global ETF Survey

4. New routes to market including white labels

The managers surveyed see the development of effective distribution channels as the number one driver for future success. Priorities include expanding online distribution to target fast growing but still under-represented markets in Africa, Latin America and the Middle East.

The survey also notes that barriers to entering the ETF market are lowering. For instance, growing access to white label platforms is allowing small and specialised managers to launch ETFs without the need to set up new bespoke infrastructure.

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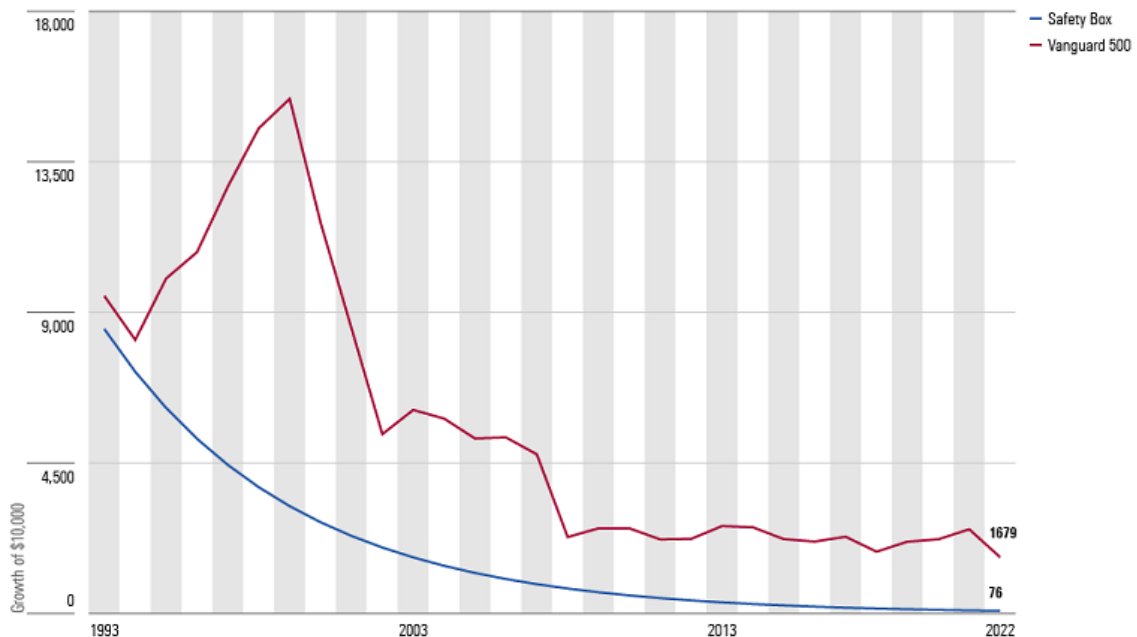
Should retirees forget about the 4% withdrawal rule?

John Rekenhaller

Forget that absurdly conservative [4% withdrawal rule](#). Retirees can safely remove 15% of their portfolio's assets every year, for life. You heard it here first.

Not convinced? See for yourself. Money stashed in a safe-deposit box can pay 15% per year for three decades without being exhausted. And that is the *poor* outcome. Investors who withdrew 15% annually from the Vanguard 500 Index Fund from 1993 through 2022 would have finished the 30-year period with 20 times more assets than the safety-box strategy.

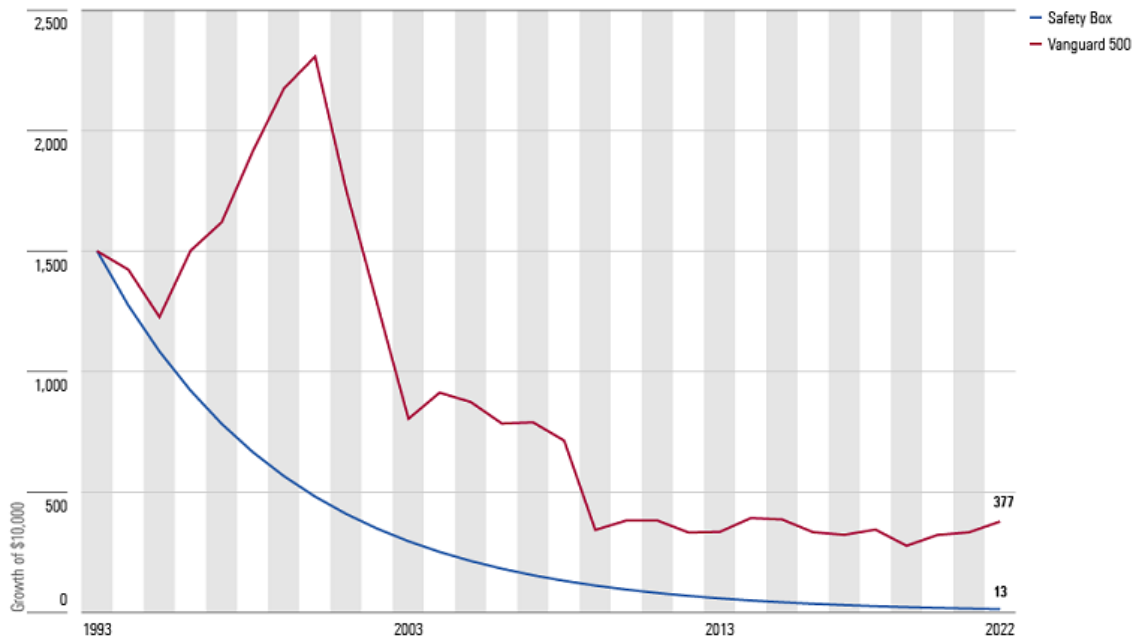
Exhibit 1 Portfolio Value: 15% Withdrawal Rate
(Safety-Box Portfolio Versus Vanguard 500 Index, January 1993-December 2022)



Source: Morningstar Direct, author's calculations.

Well, all right. The truth emerges. Because portfolios can maintain their withdrawal rates does not mean that they can retain their values. Nor, regrettably, can they retain their payment schedules. A constant withdrawal rate applied to a shrinking asset base equals fewer dollars. Consequently, the chart depicting portfolios' annual distributions looks much like the 'Growth of \$10,000' illustration.

Exhibit 2 Annual Payouts: 15% Withdrawal Rate
 (Safety-Box Portfolio Versus Vanguard 500 Index, January 1993-December 2022)



Source: Morningstar Direct, author's calculations.

Considering the denominators

This admittedly silly example points out an essential truth about investment yields. (Technically, some of the distributions discussed in this column are not 'yields' as they contain capital gains, but the principle holds regardless.) While investors customarily evaluate yield numerators (the higher the better), those amounts only become meaningful after considering the denominators.

Indeed, when the denominator is 'the current amount of the portfolio', the yield percentages are entirely moot. By that measure, all withdrawal rates can be delivered over all time periods. Retirees who located the Fountain of Youth can spend 99.99% of their wealth during each year of the next century. They will eventually die, but their money will survive, assuming the retiree's financial institution will maintain accounts that are worth only a small fraction of a penny.

Four categories

Denominators for investment yields - or, if you prefer, retiree-withdrawal rates - place into one of four categories.

1) Declining

Declining denominators pay constant distribution rates, as measured in percentage terms, but ever-fewer dollars, owing to the decline in the portfolio's balance. The latter is sometimes forestalled by an early bull market but eventually performance reverts. The portfolio's value falls below its starting point, as does the dollar amount of its cash payments.

Real-life example: High-yield bond funds have declining denominators because they distribute all income they receive rather than withhold assets to defray the capital losses that come from their bonds' defaults.

2) Flat nominal

This category is most easily understood. A 4% yield on a \$100,000 investment with a flat nominal denominator means a \$4,000 annual payout. End of story. For securities that do not face default risk, the analysis concludes. However, while the cash payments avoid nominal decline, they nevertheless fail to keep pace with inflation.

Real-life examples: Treasuries and bank CDs. In theory, investment-grade bond funds also qualify, because their investments make fixed payments and do not default. However, because their portfolios change over time, their payouts also fluctuate. Bond fund denominators are roughly flat nominal, but not precisely so.

Retirement plans relying on fixed payments that are not adjusted for inflation - meaning nominal bonds, annuities, and (largely) private pensions - have flat real denominators. Of course, most would also be leavened with social security payments, which operate differently.

3) Flat real

A flat real denominator grows with inflation. For those accustomed to thinking in nominal terms, the distributions of such securities seem less predictable than those of the second category. For professional investors, though, flat real denominators represent 'riskless' yields.

Real-life examples: Few securities aside from Treasury Inflation-Protected Securities explicitly offer flat real denominators. In practice, though, allocation funds often approximate such behavior, thanks to gains from their equities.

Research reports on safe retirement-withdrawal rates often assume that retiree spending behaves like flat real yields by tracking the rate of inflation. Distributions from retiree portfolios are not true yields because they are supplemented, when necessary, by returns of the investor's capital. However, the point remains: The percentages given in such reports cannot be usefully compared against either Treasury or annuity rates.

4) Increasing

Increasing yield denominators outstrip inflation, so that the portfolio's payments grow in real terms. This, obviously, is the happiest scenario.

Real-life examples: Equities. To be sure, they offer no guarantees, but nevertheless, Australian stocks have provided positive real returns over every 30-year period during the past century. Balanced portfolios also usually manage the task.

Few retirees except the wealthy, who can afford the risk associated with owning stock-heavy portfolios, explicitly target a yield that increases faster than the inflation rate. But such can occur during bull markets, even for those who are relatively conservatively positioned.

Wrapping Up

Percentages can deceive. Dollars do not. For that reason, the fund industry has never much liked the idea of billing shareholders for fund expenses. A \$1,000 annual charge on a \$250,000 position might raise eyebrows if the fund has recently lost money but fewer shareholders fuss about the cost of profitable investments. In contrast, funds that report 0.40% expense ratios, with no dollars attached, will likely go unnoticed.

Investors would do well to take that lesson to heart. In this instance, good business for the fund industry is bad business for investors. When evaluating investment yields or portfolio spending rates, consider not just the numerator's percentage, but also the denominator's effect. Doing so will lead to the only path that truly matters: the dollar trail.

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