Big Super's Big Impacts (and the emerging policy implications)

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There is something strange in Australian policy debate. There is a lamentable consensus that the transmission mechanism of monetary policy works predominately via the 30% of Australian households with mortgage debt. Consequently, much of what passes for economic discourse too often reverts to discussions around the impact of interest rate changes on this minority of Australian households. Yet there are other policy decisions that are equally as important in influencing the economic outlook which impact virtually all households and receives scant comment and certainly doesn't appear to enter the thoughts and discussions of our central bankers.

Economic policy can no longer ignore the macroeconomic impacts of Australia's superannuation system.

In this note, we isolate the impact of lifting the Superannuation Guarantee (SG) levy and superannuation wealth has upon economic growth and we compare those impacts to interest rate hikes and the Stage 3 tax cuts.

In short, the Reserve Bank of Australia (RBA) can no longer think in terms of managing domestic policy relative to the actions of major foreign central banks and domestic fiscal policy. There is now a third home grown force that is acting as an important influence upon the economic cycle which has positive long-term benefits, but ultimately may compound the need for a domestic easing cycle through 2024-25.

Australia's unique superannuation system generates greater macro side-effects

Australia's relationship with its retirement income system is unique in many respects but where Australia's system really stands out relative to its global peers is that it is: (i) compulsory; and (ii) privately managed.

Unlike most of Europe where government social insurance schemes tend to be unfunded and which do not quarantine the funds from other government funds, the Australian system is inherently more stable. Four key reasons underpin this stability:

1. It shifts the investment risk on to the individual.
2. It is transparent.
3. It is professionally run.
4. It has reached critical mass.

A compulsory and privately run system makes Australia's superannuation system more likely to create externalities.

It may not be perfect, but Australian superannuation will provide a meaningful contribution to retirement income over and above the aged pension[1]. Yet it is the compulsory nature of Australia's superannuation, held in trust on behalf of the individual and at arm's length

[1] There are a few retirement income systems that rank above Australia's, for instance Mercer ranked Netherlands, Iceland, Israel and Denmark ahead of Australia's system in 2023 (Mercer CFA Institute Global Pension Index 2023). Out of 47 countries, this is a high ranking, and Australia would have ranked even higher if there were less reliance of lump sum payments and more reliance on providing an income stream in retirement

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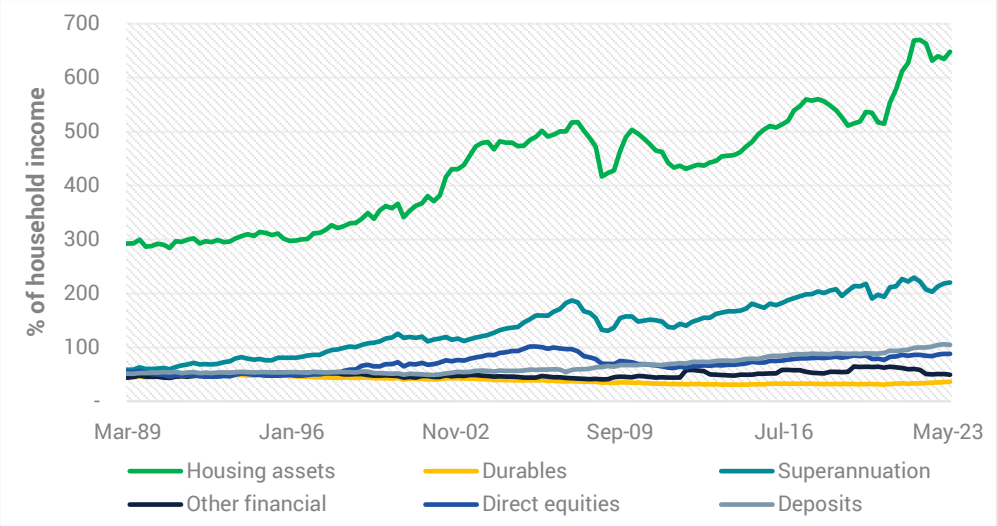
from public sector policy makers that makes the Australian system far more likely to create externalities and distortions as the system matures. That is, a lift in an individual's superannuation wealth is more likely to be viewed as a permanent shift in wealth in Australia compared to the US or Europe.

There has been heightened focus in recent years on how adequate, how equitable, how sustainable and how cohesive the superannuation system is and how the industry might need to change in the future to improve those aims. Indeed, the Retirement Income Review of 2020 provided an excellent foundation for policy makers and industry participants to tweak the system for more optimal outcomes. Yet there has been less focus on some of the broader impacts of the current system on important macro economy variables and how they interact with monetary policy.

Superannuation is now the second largest household asset and has increased its share in total household assets faster than any asset class (refer Chart 1).

Surprisingly, there has been little focus given to how superannuation is impacting important macro variables.

Chart 1: Superannuation's share of assets has increased more than any other asset class



Source: YarraCM, RBA.

Superannuation Savings and the Consumer

The RBA has had numerous attempts at modelling household consumption and components of wealth over the years. While it is easy to find a strong relationship between consumption and income over time, attempts to model national consumption relative to different types of wealth has largely proven elusive[2]. In particular, despite superannuation's 23% share of net household wealth, attempts to isolate the importance of superannuation as a driver of consumption have been inconclusive at best.

Massive fiscal transfers to the household sector during the COVID-19 period, surging inflation and largely unrealised fears of a housing price correction have meant there have been other larger forces buffeting consumption in recent times. However, as Australia embarks on its last great push towards a 12% SG levy simultaneous with large higher income tax cuts, some important questions need to be asked and answered. In particular:

As Australia makes its rush to a 12% SG levy some important questions need to be asked and answered.

- Do superannuation wealth changes actually matter for near term consumption?
- How does the propensity to consume out of wealth accumulation in superannuation differ from other forms of financial wealth and housing wealth?
- How much does shifting up the SG levy by 1% impact consumption and how does this compare to the size of the scheduled income tax cuts scheduled for mid-2024?
- How will all of this be interpreted by the RBA?

[2] The most comprehensive paper by the RBA was by Diego May, Gabriela Nodari and Daniel Rees (2019), but again superannuation wealth was not separated out from broader financial wealth.

Traditional consumption models are poorly designed to answer these types of questions. Even the larger economy-wide models favoured by policy makers will fail to deliver the appropriate answers if the consumption function is incorrectly specified in the first place. There is also the added problem that Australia's recent inflation spike is yet to be resolved and a large bank of unutilised savings built up in the post-COVID period still looms large over the outlook for consumption growth.

Faced with these challenges, we find that it is better to approach the task from a different angle. Given we are really interested in the impact of superannuation on household saving behaviour it is best to attack the problem directly and model consumption as a ratio of income rather than the more common approach of consumption as a ratio of a consumer price level. In other words, we are directly modelling the inverse of the household saving ratio and, in doing so, we do not need to be concerned about historical or future consumer prices[3]. This eliminates the issue of having a firm view on inflation dynamics when we come to thinking about forecasting, which in the current environment is a blessing.

Secondly, we have the option to use a more meaningful measure of income. By adjusting for income tax paid and interest receipts and payments we can directly assess the impact of tax changes on household savings and spending. We can also isolate the impact of interest rate changes on the decision to spend today or save for tomorrow.

Traditional consumption models are poorly designed.

A new modelling approach is required…

…which can isolate the wealth effect on consumption from rising superannuation assets from housing wealth and other financial wealth…

…and importantly provide insight into the macroeconomic impact on near term spending from shifts in the SG levy.

Key insights from the model

The model can be found in the appendix including the key features outlined in more detail. The highlight from the model is that we find a strong relationship between the way the consumer responds to shifts in both superannuation wealth and to shifts in the SG levy.

We find that shifts in superannuation wealth do influence near term consumption decisions. Despite most people not being able to access their superannuation assets until post-retirement, a 10% increase in superannuation assets results in the household saving rate declining by 1.4% which equates to $1,500 p.a. extra consumption per household.

Not surprisingly, housing wealth has a bigger influence over consumption spending. In fact, it's almost three times larger. The model finds that if house prices rose by 10% and that rise was perceived to be permanent, then household saving ratio could be expected to decline by 3.8%. This represents a boost of $4,800 to consumption per household.

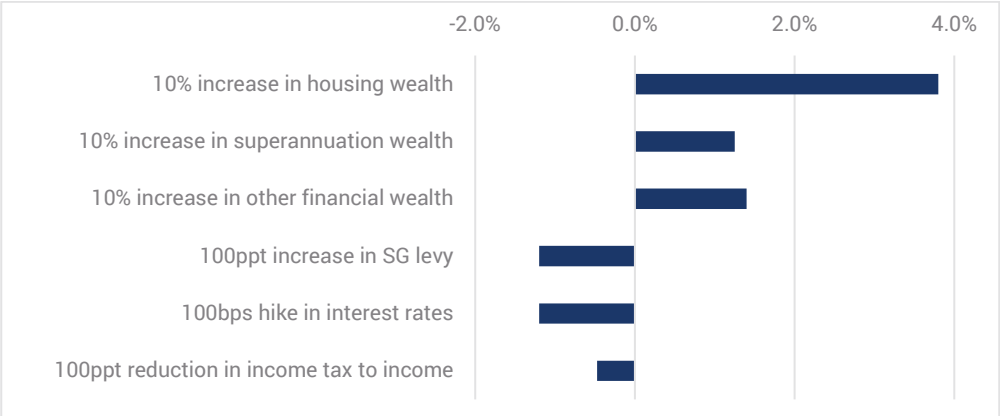
Interestingly, non-housing and non-superannuation wealth has only a slightly larger influence on saving and consumption as superannuation wealth. Thus, despite the ability to access this form of wealth without restriction movements in this form of wealth are seemingly either viewed by the consumer as less permanent or this wealth is concentrated in wealthier households which have a lower propensity to consume.

While it is satisfying to have found a way to isolate the wealth effect on consumption from superannuation, perhaps the most important finding in the model is that a movement in the SG levy has large and immediate impacts upon saving and consumption behaviour (refer Chart 2).

A lift in the levy permanently increases savings, which boosts future consumption, but the near term drag on spending is significant.

[3] By dividing real consumption by real household income the price level cancels out and we can therefore think about the analysis in nominal space.

Chart 2: Lifting the SG levy has a big near-term impact upon spending



Source: YarraCM.

In particular, we find that a rise in the SG levy from 9% in 2014 to 11% from July 2023 has raised the saving ratio permanently by 2.4%. This will rise to 3.6% from July 2025 as the SG levy rises to 12%. To reiterate, the compulsory and trusted nature of the Australian superannuation system facilitates a structural rise in the saving ratio. Yet, this comes at a cost to current consumption, particularly for those households with lower income and younger households[4].

From June 2022 to July 2024 the SG levy will have increased by 1.5%. To put this in context, our modelling finds a 100bps increase in interest rates increases the saving rate by 1.2% and a 100ppt increase in the SG levy also increases the saving rate by 1.2%.

In other words, the rise in the SG levy from 10% in June 2022 to 11% in July 2023 is equivalent to four RBA rate hikes of 25bps. The rise in the SG levy on 1 July 2024 to 11.5% will equate to two further 25bp rate hikes. The same dose will be repeated from July 2025 when the SG levy reaches its terminal rate of 12%.

Since May 2022 the RBA has increased interest rates by 425bps, and while this is heavily impacting indebted households, the rise in term deposit (TD) rates has provided a mitigating impact. Although savers have welcomed attractive TD rates in recent months, the reality is that deposit rates have not kept pace with rising mortgage rates. This means that for the aggregate consumer, the signal to save verses consume has been diminished. If the RBA wants a slower economy without crushing the bottom half of the income distribution, in our view, it should insist that TD rates keep pace with cash rate rises.

The important point is that a shift in the SG levy by 100bps is just as important a 100ppts interest rate rise. Yet when TD rates don't keep pace with mortgage rates, a shift in the SG levy by 100bps will greatly exceed the impact of a 100bp increase in the cash rate. In our view, this partly explains why luxury consumption has been largely unimpacted by interest rate hikes to date.

Tax cuts and policy implications

What about the Stage 3 income tax cuts scheduled for July 2024? The tax cut is equivalent to 1.1% of disposable income. Our model suggests that when a tax cut is delivered, approximately half is typically saved. In this case, the tax cut skews to higher income households and arguably an even greater share will be saved. The much-discussed

From June 2022 to July 2024 the SG levy will have increased by a historically rapid 150ppts to 11.5%.

We find that this will be equivalent to six RBA rate hikes.

The final push to 12% in July 2025 will be equivalent to two further RBA rate hikes.

This will swamp the estimated boost to consumption from the Stage 3 tax cuts.

Shifts in the SG levy may not be as newsworthy as tax cuts movements in asset prices, but over the next few years it will be the most direct force subduing near term spending…

[4] We are not suggesting that a rise in the SG levy results in lower take home pay for most people. Award wage earners will receive a boost in their Super inflows without any reduction in their take-home pay. So too will many people who work under enterprise agreements (EA). Both groups make up around 60% of Australian workers. But for the 40% of Australians who have an individual pay arrangement with their employer that pays superannuation as part of their salary package, the increase in the SG levy tends to be shuffled within the individuals existing remuneration package. More money will go into their Super account, but this will be offset by a reduction in take-home pay. We are however suggesting that lifting the SG levy will result in slower wages growth over the subsequent quarters.

generosity of planned income tax cuts will only return the tax to income ratio to where it was 18 months ago!

In the current 'higher for longer' mindset for interest rates, perhaps the most important influence over the outlook for the consumer is something that is far less newsworthy as movements in house prices, equities and bonds and certainly less newsworthy as the politics of an income tax cut. The most direct force in the Australian economy of shifting down the consumption share of the economy and subduing near term spending will be the SG levy.

While this is no bad thing for an economy that currently has too much inflation heat, we seriously doubt that policy makers are looking at the 1% lift in the SG levy from June 2023 to July 2024 as equivalent to a further four RBA rate hikes!

Shifts in the SG levy have important implications for policy.

Should the economy cool more than the RBA expects through 1H24, the lift in the SG levy may well spark the need for a more aggressive easing cycle in 2024-25. It will also be interesting to see whether the government attempts to offset the enforced private sector saving via some new fiscal stimulus with an eye to the polls and the next federal election.

Appendix

The model specification is:

$$\frac{C_t}{Y_t} = \frac{HW_t}{Y_t} + \frac{SW_{t-4}}{Y_{t-4}} + \frac{OFW_{t-1}}{Y_{t-1}} + \frac{Tax_t}{Y_t} + IR_t - IP_t + SGL_t + 1DTax_{t-1} + C19DV_t$$

Where;

- C is nominal consumption growth
- HW is housing wealth
- SW is superannuation growth
- OFW is other financial wealth
- Tax is income tax paid
- IR is interest income received and IP is interest income paid
- SGL is the superannuation guarantee levy
- 1Dtax is the first difference of the income tax to income ratio; and
- C19DV is a dummy variable for 2020-21 to control for the extremes of the COVID period
- Note that Y is household disposable income adjusted for interest payments and income tax so we can isolate those impacts separately
- The HW, SW and OFW variables are all expressed as first difference logarithms and the Tax variable is also expressed in logarithms
- A MA(1) process was also identified and is included in the model specification.

Dependent Variable: LOG(C_PTY)

Method: ARMA Maximum Likelihood (OPG - BHHH)

Date: 11/02/23 Time: 14:29

Sample: 1997Q1 2023Q3

Included observations: 107

Convergence achieved after 102 iterations

Coefficient covariance computed using outer product of gradients

Variable	Coefficient	Std. Error	t-Statistic	Prob.
DLOG(HW_Y)	0.379216	0.100617	3.768892	0.0003
DLOG(SW_Y(-4))	0.125111	0.051231	2.442099	0.0164
DLOG(OFW_Y(-1))	0.140099	0.108711	1.288729	0.2006
IR_LESS_IP_Y	-1.243194	0.420107	-2.959234	0.0039
SGL(-1)	-0.011864	0.002466	-4.811421	0.0000
C19DV	-0.073774	0.008481	-8.699134	0.0000
D(TAX_Y(-1))	-0.475250	0.201411	-2.359610	0.0203
LOG(TAX_Y(-1))	0.155836	0.009575	16.27505	0.0000
MA(1)	0.440664	0.109883	4.010303	0.0001
SIGMASQ	0.000348	4.02E-05	8.657474	0.0000

R-squared	0.816328	Mean dependent var	-0.370717
Adjusted R-squared	0.799287	S.D. dependent var	0.043747
S.E. of regression	0.019599	Akaike info criterion	-4.935842
Sum squared resid	0.037260	Schwarz criterion	-4.686045
Log likelihood	274.0676	Hannan-Quinn criter.	-4.834578
Durbin-Watson stat	1.937150		

Inverted MA Roots	-.44

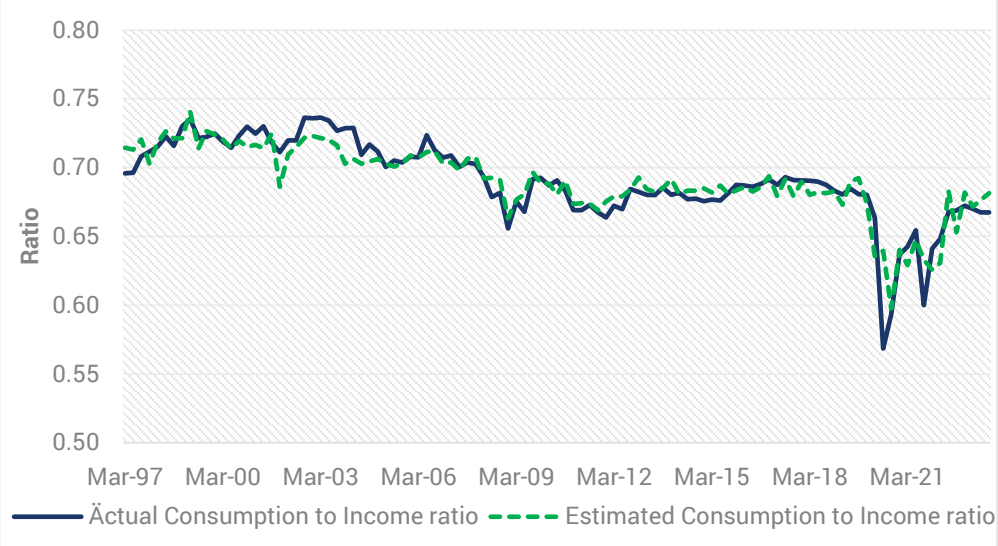
The key features of the model include that it explains 80% of the quarterly movement in the consumption to income ratio (or inverted saving ratio) since 1997 (refer Chart 3). Importantly, movements in housing wealth, superannuation wealth, income taxes and the movement of term deposit income relative to debt payments are all highly significant and correctly signed.

The main observations are;

- Since we are modelling the inverse of the saving rate (which is a flow), it is changes in wealth that are more relevant than levels (i.e. converting a stock to a flow). Thus, an unanticipated positive change in wealth can be expected to increase the consumption to income (C/Y) ratio (lower the saving rate (S/Y)).
- The model finds that for:
    - A 1% rise in housing wealth to income, consumers will lower the household saving ratio by 0.38%. That is, if house prices rose by 10% and that rise was perceived to be permanent then household saving ratio could be expected to decline by 3.8%.
    - A 1% rise in superannuation wealth to income, consumers will lower the household saving ratio by 0.14%. That is, if superannuation returns rose by 10% and that rise was perceived to be permanent then household saving ratio could be expected to decline by 1.4%.
    - A 1% rise in other financial wealth to income, consumers will lower the household saving ratio by 0.12%. That is, if other financial wealth rose by 10% and that rise was perceived to be permanent then household saving ratio could be expected to decline by 1.2%.
    - A rise in the superannuation guarantee rate by 1% lowers the C/Y by 1.2%. That is, a rise in the SG levy from 9% in 2014 to 11% from 1 July 2023 has raised the saving ratio permanently by 2.4%. This will rise to 3.6% in 1 July 2025 as the SG levy rises to 12%.
    - A 1% increase in the income tax to income ratio lowers the C/Y ratio 0.47%. The Stage 3 income tax cuts scheduled to commence 1 July 2024 is estimated to cost $20.4bn in the first financial year, equivalent to 1.1% of household income. Thus, half of the income tax cut in 2024 can be expected to be saved. Indeed, given the 2024 tax cut skews to higher income earners it is likely that an even greater proportion of the income tax cut is saved in the first instance. Moreover, the model finds that the rising trend in the tax to income ratio acts as a disincentive to save.
- The relationship between interest rates, savings and consumption is complex. In economic theory, the intertemporal rate of substitution (IRS) is the rate at which an individual is willing to substitute current consumption for future consumption. It is a measure of how much an individual prefers present consumption to future consumption. The IRS and the interest rate are closely related. A higher interest rate makes it more expensive to borrow money, which makes people less willing to consume today and more likely to save for the future. From a modelling perspective, we chose the interest received on term deposits less the interest paid on debt by households as a ratio of income to be the most relevant interest rate. The rationale is that this best captures the shifting incentives between borrowing and saving during shifting interest rate regimes. For instance, when the gap between term deposit rates relative to the mortgage rate increases, there is a strong incentive to divert funds to save for the future. We estimate that a 100bp increase in interest rates increases the saving rate by 1.2%[5].

[5] We have stressed for years the importance of looking at the income received on assets relative to the interest payments on debt when assessing the consumption outlook. It was of interest that the RBA adopted a similar approach for the first time in the RBA speech "Channels of Transmission" October 2023.

Chart 3: Consumption to income model fit – 80% of quarterly movements in C/Y explained



Source: YarraCM.

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Superannuation is impacting important macro variables