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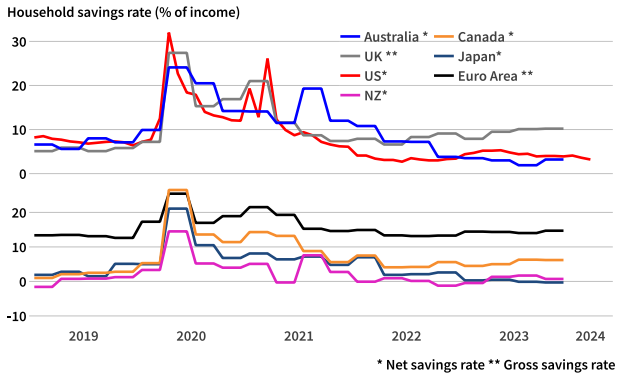
Macro thematic - it's time to retire 'excess savings' & focus on fundamentals

- **The notion of Pandemic 'excess savings' is becoming less useful over time. While it was a way of illustrating the highly unusual nature of the recession experienced in the pandemic, at this stage the focus should be on aggregate wealth and income to explain household consumption and savings decisions.**
- **It is true that during the pandemic, when restrictions were in place, economic fundamentals could not explain a lot of the movement in savings. However, 'excess savings' are not observable and different estimation approaches produce very different results.**
- **Excess savings are not a separate pot of gold waiting for households to dip into, but rather are one small part of the overall change in household balance sheets that has occurred. In fact, our estimate of cumulative excess savings equates to only around 4% of the increase in household net wealth in Australia since end 2019.**
- **Aggregate household wealth has increased in most countries, from its pre-pandemic level, so the concept of savings being 'run down' is not a useful characterisation of recent events.**
- **Negative real income shocks tend to depress the savings rate. This is what we have been seeing in Australia and Japan, and for a period the US and UK. Wealth gains also depress the savings rate – Australia has seen a large increase in wealth from its pre-pandemic level relative to other countries.**
- **Only in the US is the savings rate somewhat lower than might have been expected based on changes in income and wealth since the end of 2019. For Australia, the Euro-zone and Canada, it is higher. It is hard to see any special, significant, impact from 'excess savings'.**
- **Over the last year or so, changes in savings behaviour can largely be explained by changes in income and wealth, although other factors such as elevated interest rates may have played a role. This also implies that income and wealth will likely be the key drivers of consumption going forward. The lift in Australian household incomes expected in the second half of this year, in part due to tax cuts, likely means both the savings rate and consumption growth will strengthen.**

'Excess savings' – a recap

A feature of the COVID-19 pandemic was a lift in new savings by households in advanced economies. This reflected measures taken by authorities to reduce the spread of COVID-19 which limited the ability of households to spend and can be seen in the jump in the proportion of income that households saved (the savings rate) at times during the pandemic. On top of this, for some countries, sizable government support meant that this higher savings rate was being applied to a higher level of income.

Savings rates lifted during the pandemic



It is worth noting that here we are talking about the flow of savings or new savings – i.e. the difference between income and consumption in a given period – as opposed to the stock of savings that has been accumulated over time. New savings are not just additional deposits into a bank account but can include paying down mortgage principle or purchasing shares. A positive flow of savings will tend to increase the stock of wealth over time. Savings, and savings rates can also be measured on a gross basis or a net basis (with the latter subtracting consumption of fixed capital).

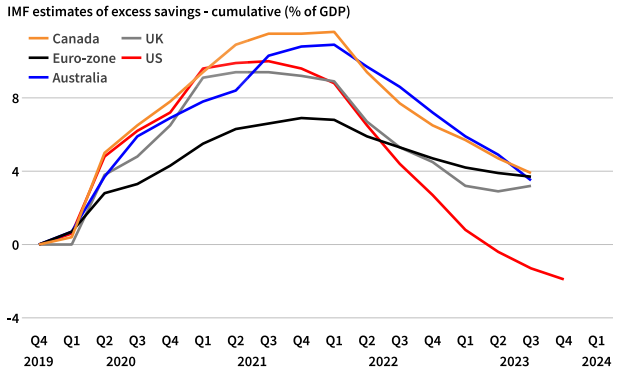
The jump in the observed flow of savings, relative to what might have been expected if the pandemic had not occurred, is commonly referred to as 'excess savings'.

As we do not know what savings would have been in the absence of the pandemic, the general approach has been to look at the difference between the actual flow of savings and an estimate of what savings would have been if pre-COVID trends had continued. Analysts have then tended to aggregate this difference in the flow over time to estimate of the stock of excess savings.

For example, the IMF recently published estimates of accumulated excess savings, using a Hamilton trend,

which are reproduced below. These estimates suggest that in many countries the stock of excess savings has declined considerably through the recent period of high inflation and rising interest rates, purportedly indicating that households are 'drawing down' on excess savings to support consumption.

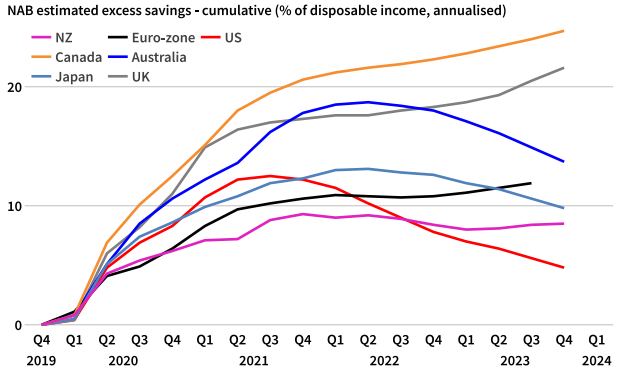
IMF estimates of cumulative excess saving



However, how the pre-COVID trends are estimated can produce vastly different estimates of excess savings.

A simple alternative calculation –shown in the chart below - is derived by first estimating pre-pandemic trend household income – based on the growth rate over the 2 years to Q4 2019 – and then applying the average savings rate for 2019 to these trend income projections. This compares actual savings to what might have occurred without large changes in incomes. (Note calculations are based on savings rates as published, whether on a gross or net basis.)

Excess savings – NAB estimates



While both approaches indicate that there was a substantial level of excess savings accumulated, they differ significantly in a couple of respects. Both measures point to a run down in excess savings in the US and Australia, but the IMF estimates suggest a bigger run down, to the point where US excess savings have been fully exhausted.

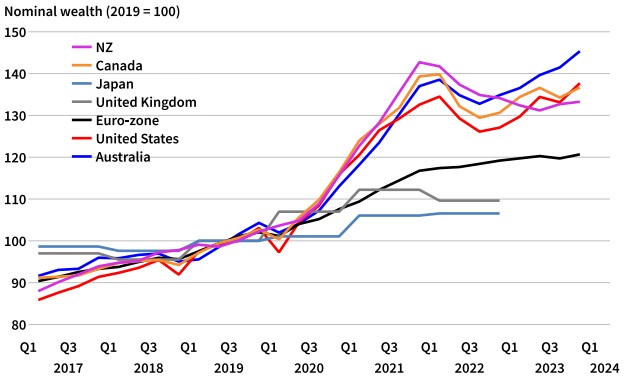
An even larger difference emerges for other countries, where our approach suggests excess savings are flat or continue to rise while the IMF approach suggests they are falling. To our mind, the IMF results are what you get when you torture the data until it tells the story you expect to see. In Canada, the savings rate since the pandemic has remained higher than it has been since 2015, so a methodology that estimates excess savings are declining is hard to understand.

Moreover, whatever the estimation approach, the further away we get from the start of the pandemic, the less meaningful benchmarks based on pre-COVID levels or trends become.

Broadening the focus: the flow of savings vs the stock of wealth

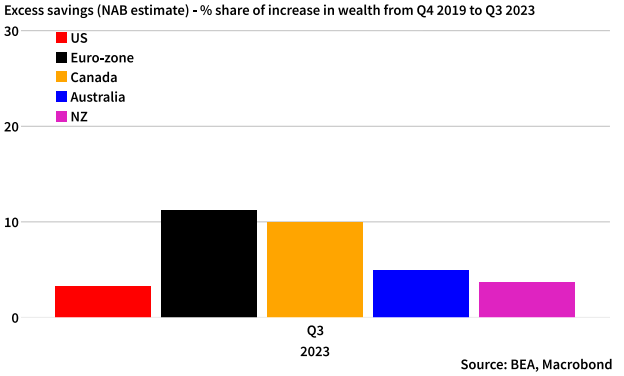
This approach of aggregating a portion of the flow of savings over the post-pandemic period ignores the fact that these 'excess savings' are not the only determinant of wealth. The stock of household net wealth has increased from its pre-pandemic level in most countries, because of both 'normal' and 'excess' savings as well as changes in asset prices. As illustrated below, nominal wealth across a range of countries is now well above its pre-pandemic level.

Wealth up most in Aust., US and Canada



On an inflation adjusted basis, real wealth for most countries is generally above its pre-pandemic level (the UK, with data only to 2022, is an exception), but it is now lower than it was in 2021, and for the Euro-zone the increase is very small for a four-year period.

Measured excess savings a small fraction of wealth gains since 2019



Estimated 'excess savings' accumulated during the pandemic are only a small factor in the increase in net wealth. For example, between Q4 2019 and Q4 2023, household net worth in Australia increased by over $4.4 trillion, but accumulated excess savings at the end of this period, of around $200 billion, only explain a fraction of

this – around 4%. This is not just an Australian story, but is also the case for other countries as well.

In short, excess savings are a small part of a bigger picture – and an artificial construct at that – and as such the discussion needs to move away from 'excess savings' and more towards savings behaviour in general. While part of the excess savings story was that there was a lift in highly liquid assets (e.g. bank deposits), the point still stands that we are years down the track from that occurring and, as we will see below, liquid assets have not increased more than other assets.

Savings behaviour: key determinants

While the stock of net wealth has been rising, it is still true that the pace of savings has declined from its pandemic highs in most countries. In the case of Australia, the US and Japan the flow of savings, and the savings rate, are now clearly below the levels seen before the pandemic. The question is whether this decline has been more dramatic than we would expect given the economic fundamentals, which you might expect if 'excess savings' were playing a special role.

Here we focus on two key drivers of savings behaviour – household income and wealth. Household income dictates the resources available to be saved (or consumed) while wealth represents the value of the stock of past savings, with households seeking to optimise their savings behaviour to achieve desired goals, such as smoothing consumption (muting the impact of swings in incomes) and providing for retirement.

There are numerous other factors that influence consumption/savings decisions over time and across countries. These include structural factors such as demographics, taxation, social security and pension arrangements, although absent a major change in policy these factors are unlikely to explain large short-term shifts in the savings rate. Changes in income distribution can also have an impact.

Interest rates are also an important influence on savings rates. Importantly, the direct effects of interest rates on household cash flows can be accounted for by looking at disposable income, while effects on asset prices flow through to wealth. Other possible interest rate channels are changes in lending standards and the price effect (intertemporal substitution) where a higher rate of return encourages savings and a deferral of consumption (and in the current environment would tend to push savings rates higher).

Savings can also reflect a precautionary element against future risks. Historically there are examples where savings rates rose during a recession, likely reflecting household caution given the increased risk of reduced earnings or loss of employment.

Income and savings

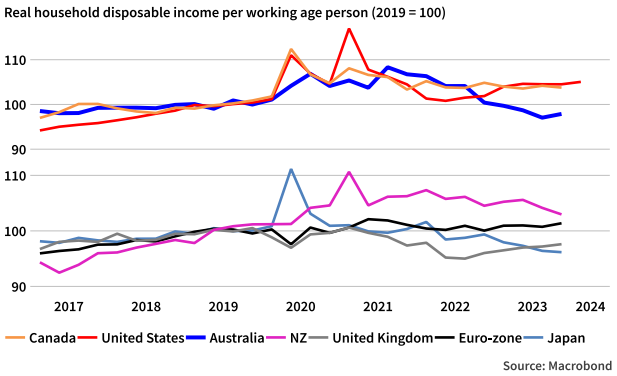
Households save in part to provide a retirement income. As this is likely to be higher the greater the standard of living they have become used to, the level of savings can also be expected to increase as income rises.

Households can also use savings as a buffer against (unexpected or temporary) changes in income, to smooth consumption – lifting savings when incomes rise and reducing them when income falls. A historical example comes from the US at the end of 2012 – with various tax rates scheduled to go up at the start of 2013, and with income being brought forward where possible, the savings rate jumped from around 7% to over 10% in December 2012. However, as the new tax arrangements came into place, and income fell back, the savings rate moved down to below 5%.

A feature of the period since the end of 2019 has been the large swings in household income – particularly after adjusting for changes in prices. Some countries saw large increases in disposable income as governments provided payments to households during the pandemic. Falls in interest rates added to this dynamic. This was particularly relevant for the United States, Australia, New Zealand and (for a brief period) Japan. Western Europe was different as government policy acted more to maintain, rather than lift, income.

As government Covid support payments concluded, interest rates rose and inflation accelerated (with wages lagging), some countries saw large real income falls – typically the same group of countries that saw the largest increases during the pandemic, although UK households also experienced a sizable reduction in real incomes. The Euro-zone has seen relatively little change in real household income, but little growth over a four-year period is still a poor result.

Big up and downs in real income since 2019



Source: Macrobond

Wealth and savings

There have been many studies on how changes in wealth affect consumption (and, by implication, savings).

Estimates vary widely, but generally research finds that increases in wealth increases consumption and, by implication, lowers savings. Wealth impacts appear to be smaller in continental Europe than in the US, UK,

Canada or Australia. While intuitively, one might also think that the impact might be larger for a change in wealth held in more liquid assets than for non-liquid assets, the evidence is mixed. Some studies have found changes in housing and financial wealth have similar impacts, while others have found changes in housing wealth in the US (and Canada) are more important than changes in financial assets, but that the reverse is true for other countries with little evidence of any significant housing wealth effect in the Euro-zone.

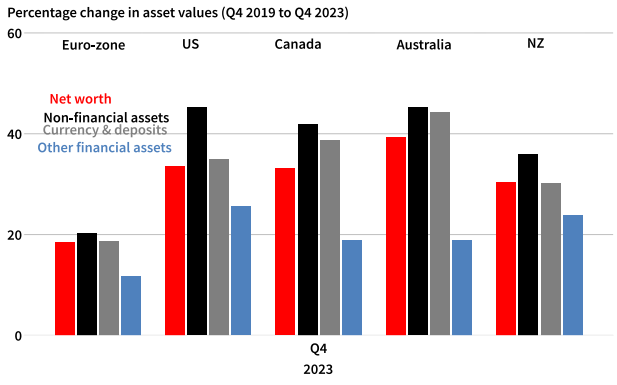
A RBA study (2019)[1] for Australia found a much greater impact on consumption from changes in stock market wealth (15c for every $1 increase) than it did for housing wealth (3c) although, reflecting the differential size of housing and stock market wealth, there was a greater impact on consumption from a 1% change in housing assets (0.16% impact) compared to equities (0.12%).

While there are a wide range of estimates around the impact of changes in wealth on consumption, several points stand out.

Firstly, the largest gains in wealth since the end of 2019 have been seen in countries where the wealth effect on consumption has generally been found to be greatest – the US, Australia and Canada, with the UK an exception as its (nominal) wealth increase has been modest (with the caveat that data are only available to 2022). In contrast, there has only been a moderate increase in wealth in the Euro-zone and Japan.

Secondly, wealth gains have been reasonably broad based across the main asset classes, although increases in non-financial assets (mainly dwellings) have been higher than for financial assets. Within financial assets, gains have been strongest in currency & deposits but smaller in other financial assets.

Wealth gains broad based across asset classes



The breadth of gains across the asset classes suggests that the composition of gains in wealth is not a major factor in the recent period (and that a focus on aggregate wealth is a reasonable approach). That said, at the margin, stronger growth in non-financial assets reinforces the bias towards extra consumption (and lower saving) in the US (where gains in housing wealth may be more important) relative to Europe (where housing wealth impacts are small).

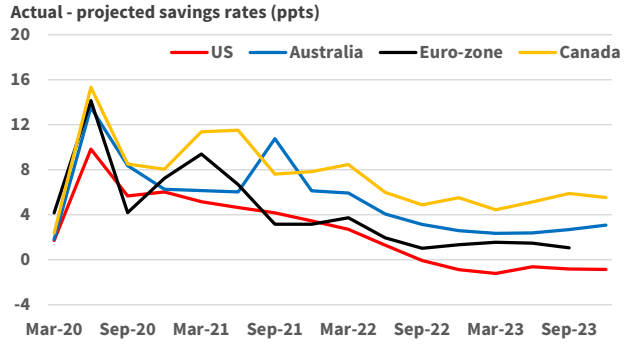
Modelling savings behaviour

To test whether anything unusual has happened to savings behaviour since the pandemic, we estimated models for the US, Australia, Euro-Zone and Canada up to 2019 which sought to explain changes in the savings rate in terms of movements in real household net worth and incomes. Details of the models are in the Appendix.

The chart below shows the actual deviation from projected savings rates since Q4 2019 based on the actual moves in income and wealth since that time. The projected savings rates take the actual Q4 2019 savings rates as a starting point. Unsurprisingly, early in this period, the actual savings rate was higher than its projected level because of pandemic restrictions on mobility. By end 2023, only for the US was the actual savings rate below its projected level. While the deviation is not particularly large, it does help explain the resilience of the US economy relative to other advanced economies.

For Australia, Euro-zone and Canada, the savings rates are higher than would have been expected given changes in income and wealth, contrary to what would have been expected if excess savings were playing a special role in absorbing the real income shock.

Savings rates generally higher than expected



Of course, there may be other factors at play in influencing savings decisions which the modelling is not picking up.

However, what is also interesting is that the deviation between the projected and actual results have largely stabilised over the last year or so, indicating that movements in recent savings behaviour can be largely explained by changes in income and wealth. In the case of Australia, the gap has drifted up a little in recent quarters indicating that the change in the savings rate has been a bit higher than expected (although not to a large degree).

[1] May, Nodari, Rees (March 2019), Wealth and Consumption

Some thoughts on consumption/savings outlook

Along the same lines, the RBA, in their May Statement on Monetary Policy indicated that it was surprised by a higher than forecast savings rate recently and appears to have lent on their consumption forecasts as a result. The RBA considers that the extra incentive to save from high interest rates may be one factor (i.e. intertemporal substitution).

The 'surprise' partly reflected upwards revisions to the Q3 savings rate in the Q4 national accounts, but disposable income growth was also much stronger than expected (with real household disposable income up 1.5% q/q in Q4). Generally, the initial impact of a large move up in income growth is to increase the savings rate, but then for it to come off subsequently as the extra income feeds into consumption.

However, the quarterly reads on household income (and moves in the savings rate) can be quite volatile, so not too much emphasis should be placed on one quarter. While the move up in interest rates may have provided some extra incentive to save, the Cash Rate has been on hold since November 2023, so there may be little further impact from this factor. Based on the RBA forecasts for real household income, their savings rate forecast looks conservative, although we only expect consumption growth to be a little stronger in this period than the RBA is forecasting.

With household incomes set to increase in the second half of the year, in part due to income tax cuts, the savings rate will also likely rise in the second half of this year, before partially unwinding (which is also the case in the RBA projections).

A higher savings rate that simply reflects stronger income growth will also be accompanied by stronger consumption growth.

As the savings rate is likely to remain below its pre-pandemic period, 'excess savings' (however measured) will continue to fall but this simply reflects a mechanical calculation rather than some special, independent role, being played by excess savings.

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Appendix – modelling changes in the savings rate

The basic structure of the model was the same for each country:

Δ SR = Constant + ΔRW + ΔRDI

Where Δ denotes change from previous quarter (log changes for RW and RDI), SR denotes the savings rate, RW real household net worth and RDI real household disposable income.

Models were not estimated for the UK and Japan as wealth data are dated and only available on an annual basis, while for NZ there are not sufficient historical data.

The table below summarises the variable signs and lag structure of the estimations for each country:

	Constant	Real net worth (RW)				Real Disposable Income (RDI)			
lag		0	-1	-2	-3	0	-1	-2	-3
Australia	-	-	-	-		+	-	-	
US	-	-	-	-		+	-	-	-
Euro-zone	-	-	-			+	-		
Canada	-		-	+	-	+	-	-	-

As expected, the sign of real wealth was negative – an increase in real wealth tends to lower the savings rate. (While on the second lag, the RW term for Canada had a positive sign, the sum of the coefficients on RW was negative).

Also as expected, the sum of the coefficients on the real disposable income (RDI) term was positive. However, this reflected a positive sign on current period RDI, and negative signs on past changes in RDI. This is consistent with consumption smoothing, whereby a lift in income is not fully matched by greater consumption in that period (lifting the savings rate) but consumption lifts further over time (causing the savings rate to fall back after the initial lift).

The constant terms were all negative, essentially adjusting for the underlying trend increases in income and wealth over time.

For each country the models were estimated up to the December quarter 2019 (i.e. the pre-COVID period).

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