# NAB ECONOMICS CONSUMER CASHFLOW ANALYSIS AND ITS IMPLICATIONS FOR THE WIDER ECONOMY



September 2020

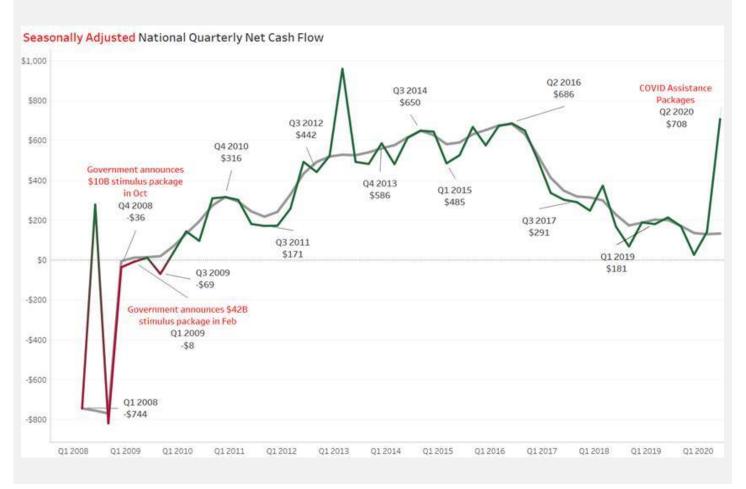
### NAB Group Economics

For some time now NAB has been refining the ability to capture the personal "cashflow" of consumer accounts. (i.e. a measure of cash inflows - money earnt - and cash outflows - money spent - to determine if an individual has a positive or negative net cashflow). The analysis does not cover a customer's net assets but simply flows, into and out of individual accounts. Our focus is to better understand stresses in household balance sheets and hence macroeconomic impacts on consumers spending behaviours. Thus, for example, a customer with large debt funded assets (eg. investment properties) will only be captured to the extent that interest payments affect their cash outflows (that is, the loan itself is excluded). We have managed to create a database going back to 2007.

The main focus of the analysis is quarterly but monthly data is also captured. We can also see this data by Local Government Areas (and post codes in large cities). As part of that analysis we have identified sources of cash inflows (eg. wages, Government payments etc) and cash outflows (ie. where the money is spent by type of consumer activity).

That allows us, among other things, to measure consumers responses to certain stimulus. Thus for example, there are stable econometric relationships from things like changes in wage payments and interest rate movements to cash flow. Interestingly, econometrically (ie. looking at causality where one time series is useful in forecasting another) suggests credits cause subsequent changes in debits (such as consumer spend) but not the other way around. Put simply unless there is growth in inflows, the increase in outflows will slow.

The following chart shows a summary of the data in trend and seasonally adjusted terms from 2007 to Q2 2020. It reports customer net cash flows in 'dollars per person'. It should also be noted that the further back in time we take the analysis the less robust the data becomes (and hence becomes more volatile). Individual large capital city charts are also shown in Appendix 1.

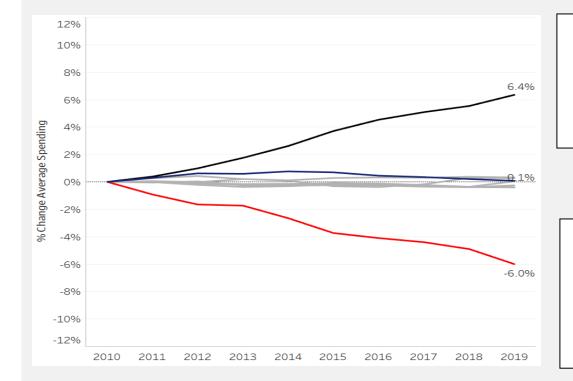


There are some obvious and interesting trends in the data:

- First, despite data volatility, households experienced large negative cash flows during the GFC (2007-2009);
- Second, cash flow positions were rebuilt all the way until mid 2017;
- Third, cash flows then deteriorated to end 2019 which appears highly correlated with weaker than expected consumer spend in that period;
- And finally, Government packages have significantly altered cash flows during the COVID-19 period.

Looking at the post GFC period leading into 2020, the analysis can be used to identify changing patterns of spending by type of product and location. The following chart shows how consumer spending has changed since 2010 (the earliest data point) to end 2019, by product as a proportion of their incomes.

As a proportion of total average spend, consumers are spending more on eating out and takeaway (+3.8%), and insurance (+1.1%) and less on household goods (-1.8%) and retail in 2019, compared to 2010. Whereas spending on all utilities (relative to the other categories) has remained constant.



- Cafes & takeaway food (+3.8%)
- Insurance &
   financial services
   (+1.1%)
- > Alcohol (+0.7%)
- Personal care & pharmaceuticals (+0.7%)
- Household goods (-1.8%)
- Other retail (-1.8%)
- Clothing Retail (-0.9%)
- ➤ Groceries (-0.9%)
- Health care (-0.6%)

On the other side of the ledger, tax refunds last year can be identified and then matched to subsequent spending behaviour. What is fascinating, is that most refunds were used within 3 days of receipt and no more than 20% were spent on consumption. Most were put into bank accounts to pay off debts and/or increase saving deposits. As we will see that is very different to recent behaviours.

#### The Post COVID-19 Experience

To better understand the post COVID-19 experience we have provided a monthly split of the data. The key numbers in original data and seasonally adjusted cashflow (as well as the number of customers at around 2 million per month) are shown in the following table.

		Cash Flow in Seasonally Adjusted Terms			
YEAR	MONTH	CREDIT	DEBIT	CASHFLOW	
2020	1	3,732.52	3,830.85	-46.07	
2020	2	3,790.80	3,837.21	29.86	
2020	3	3,834.79	3,847.26	189.72	
2020	4	3,826.04	3,478.51	416.62	
2020	5	3,816.39	3,688.57	171.6	
2020	6	3,844.20	3,855.18	135.39	
2020	7	3,898.24	3,986.99	334	

Note: The Net does not equal to Credits – Debits due to variations in Seasonal Adjustment factors

Looking at the table it is apparent that in the first few months of 2020 nothing much changed re household cash flows — with the numbers either negative or close to it. By March credits started to increase as Government revenue flows increased. That continued into April, customers obviously cut expenditure during the early phase of the first lockdown leading to the massive increases in April cash flow. Inflows were boosted by the receipt of the first 'superannuation early withdrawl' income in early May and consumption continued at its current high level. The massive jump in credits and debits reflects two factors: the traditional boost to incomes from early tax returns (which the seasonal factor largely eliminates); and the even bigger second round of early withdrawls from superannuation.

While we will do another note on where the superannuation funds were spent, it is clear from our analysis that much of the government refunds and special payments have actually been spent in the shops this year - early estimates suggest more than 50% (in marked contrast to the 2019 tax refunds).

The table analysis clearly helps to explain the rapid turn around in retail and consumption spending from the lows of March/April. However it also comes with a warning. Many of the special JobKeeper/JobSeeker payments will be reduced by end September and it appears that the 'superannuation early withdrawals' for 2020/21 have already been largely used up. And as noted earlier, the causality runs from credits to debits. That suggests that consumption expenditure is likely to return to softer growth not just in Victoria (from stage 4 lockdown) but more broadly, from reduced revenue inflows and higher unemployment.

Our aim is to repeat this note every two months (or earlier if things change radically). We also aim to put out a more detailed note in coming weeks on where 'early release superannuation funds' were really spent/used.

Finally let me stress NAB takes data privacy very seriously. All customer transaction data has been aggregated and no individual's data is specifically identified or analysed as part of this process. The data used in this report will not be sold or made publicly available, but insights from the data will be shared with the Australian people.

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# Appendix 1

# Consumer Cash Flow since 2007

# By Major Capital Cities



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