



# NAB ONLINE RETAIL SALES INDEX AUGUST 2019

NAB Group Economics

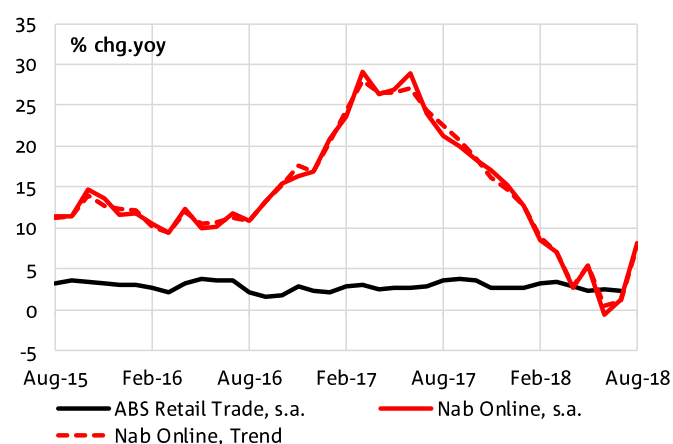
- The NAB Online Retail Sales Index returned to strong growth (+5.7%) in August on a month-on-month, seasonally adjusted basis. This follows two considerably weak sales months in June and July.
- In year-on-year terms, the growth in the NAB Online Retail Sales Index also rebounded (+8.3% y/y s.a.) in August.
- August data shows sales for all eight online retail categories growing in month-on-month growth terms, albeit with department stores virtually flat. The largest sales category, homewares and appliances (12.1% mom, s.a.), was a key contributor to the headline result given its relative weight in the index, bouncing back after two months of sales declines. However, the year-on-year change for this category remains slightly negative due to weakness in June and July. Smaller spend share category, media, recorded the highest sales growth in the month, and is now slightly positive in year-on-year terms. In year-on-year terms, the smallest sales category, takeaway food, recorded the fastest growth with sales almost double what they were in August 2018. For more detail, see Charts 3, 5, 7 & 8 below.
- In month-on-month terms, all states and territories recorded sales growth. Tasmania led monthly sales growth, with a large rebound (+15.3% mom, s.a.) following two months of sales contraction. Of the larger sales states, Victoria (+9.9%) leads in year-on-year sales growth.
- Regional areas, where the June and July sales dip were more pronounced, have rebounded strongly (+9.0% mom, s.a.). NSW, VIC and QLD contributed strongly to this rebound, with regional sales growth in all three major sales states outpacing their metropolitan areas. TAS, WA and SA metro areas went against the broader result to record faster online retail spend growth relative to regional areas in the month. See Charts 15 and 16 for more detail.
- At 6.2%, domestic online retailers performed considerably stronger in month-on-month terms relative to international competitors (+2.2% mom, s.a) albeit with the latter not as weak in the preceding months. Growth rebounded for domestic homeware and appliance retailers, which had felt the brunt of the recent slowdown. See charts 13 and 14, and table 3 for category growth and share.
- We estimate that in the 12 months to August, Australians spent \$29.53 billion on online retail, a level that is around 9.1% of the traditional bricks and mortar retail sector (July 2019, Australian Bureau of Statistics), and about 10.6% higher than the 12 months to August 2018.
- See comments from NAB's Chief Economist, Alan Oster, on page 2.

Year-on-year growth (% s.a.)			
	Jun-19	Jul-19	Aug-19
NAB Online Index	-0.5	1.3	8.3
ABS Traditional Retail	2.5	2.4	

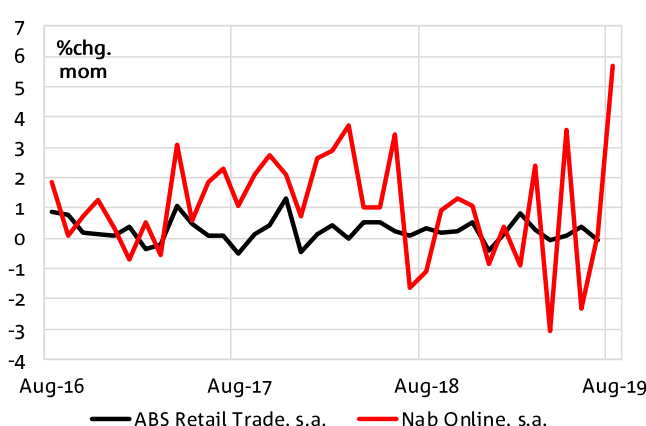
Month-on-month growth (% s.a.)			
	Jun-19	Jul-19	Aug-19
NAB Online Index	-2.3	0.1	5.7
ABS Traditional Retail	0.4	-0.1	

Sources: NAB, Australian Bureau of Statistics (ABS). \*Data seasonally adjusted (s.a.) using TRAMO/SEATS (incl. trading-day & Easter adjustment.)

**Chart 1: Online retail sales**



**Chart 2: NAB Online retail trade data, s.a.**



**NAB Chief Economist, Alan Oster commented:**

Our NAB Online Retail Sales Index data indicates that sales growth rebounded strongly and returned to positive territory in August after two weak months prior. Online retail sales tend to be more volatile than broader retail, experiencing far greater monthly fluctuations, but the past five months have been considerably more so. Looking through the month-to-month volatility, sales growth in year-on-year terms returned to close to double digits and 12-months-to-August growth remains strong. The acceleration in sales growth does not appear to be borne out in the latest result for the broader cashless retail measure, which indicates that broader retail sales growth for August were more subdued when compared to online retail.

The rebound in sales growth for the largest sales category, homewares and appliances, contributed significantly to the headline result. However, this category has experienced periods of sales weakness over the past year, so much so, that its share of the online index has dropped from around 28% a year ago to about 26.8% now. The mid-sized sales category of grocery and liquor continues to record far more stable growth. This category is currently ranked 4<sup>th</sup> in terms of monthly sales growth, a position where it has averaged over the past 3 years. Media, with a smaller spend share, has typically been more volatile. This month, media recorded the highest sales growth rate, but typically this category ranks between 5<sup>th</sup> and 7<sup>th</sup>, so it is more challenging to see the current result for this category repeated. The smallest sales category, takeaway food, has been the most volatile in terms of sales growth, possibly due to structural changes by way of high profile exits and consolidation. Through this volatility, this category has almost doubled in sales compared to August 2018.

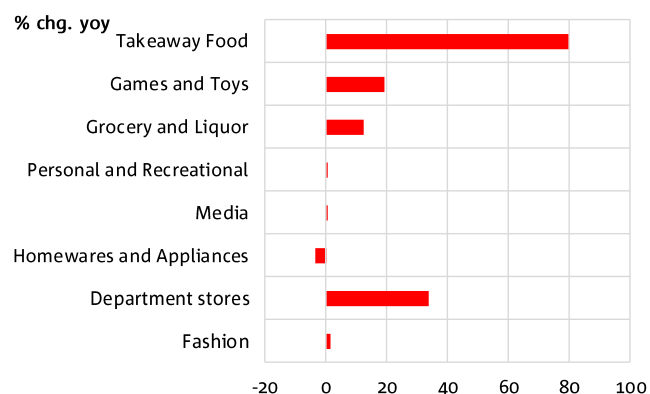
Of the large sales states, Victoria leads in year-on-year growth, while Tasmania recorded a considerably strong rebound after months of persistent weakness to lead monthly online sales growth in August. Online sales growth in Victoria on average has been higher than NSW over the past couple of years. Consequently, the gap in spend share between the two is narrowing.

Representing about one-third of all online sales, regional areas recorded the stronger growth in August relative to metropolitan regions. The large sales states of NSW, Victoria and Queensland were the key drivers of the strong regional result, while sales growth was stronger in metro areas in WA, SA and Tasmania.

By merchant location, domestic retailers (+6.2%) grew strongly in the month following a contraction in July. International retailers grew at a relatively slower rate after outpacing domestic last month. The result was due to a particularly strong rebound in the key sales categories of homewares and appliances, and media.

It is worth noting here that our definition of a domestic online retailer can include those merchants whose parent organisation might be overseas with an Australian subsidiary. Solely using GST as a key defining characteristic of domestic and international is no longer appropriate given changes made in July 2018.

**Chart 3: Online retail sales by industry, yoy,s.a.**



**Chart 4: Online retail sales by state, yoy s.a.**

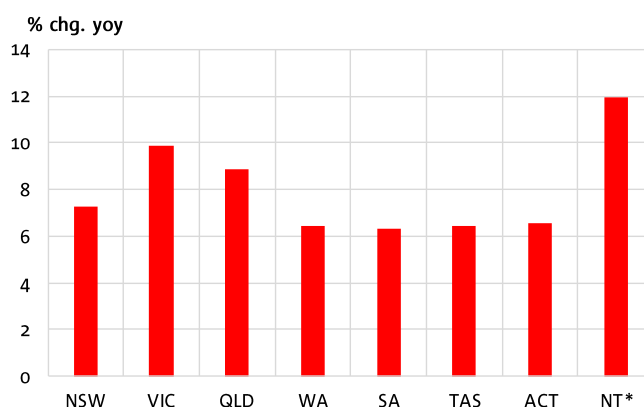


Chart 5: Online retail sales by industry, mom s.a.

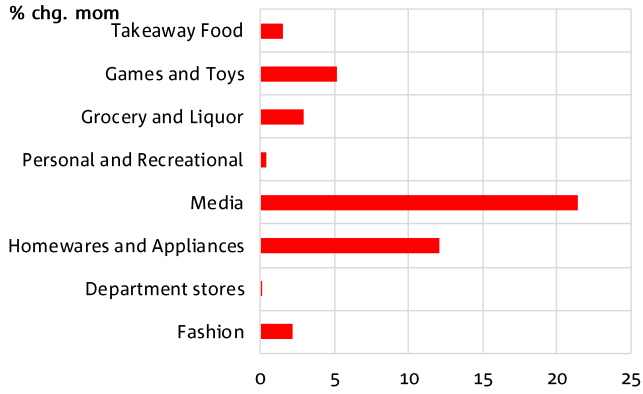
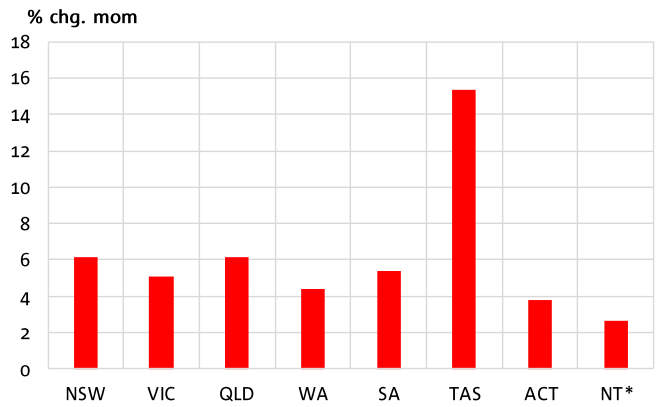
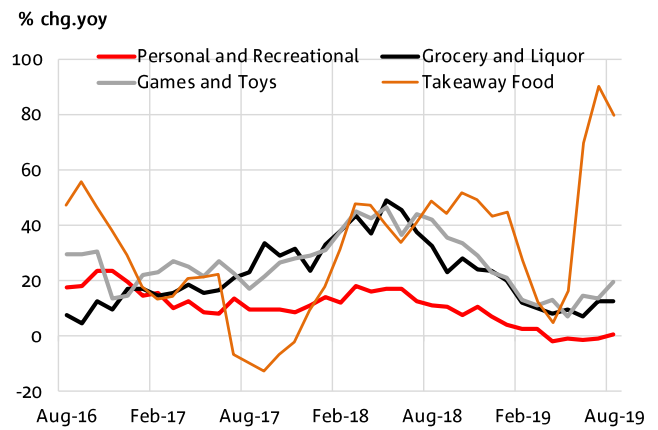
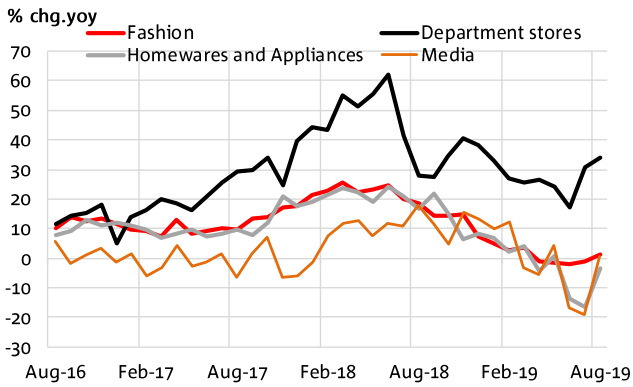


Chart 6: Online retail sales by state, mom s.a.

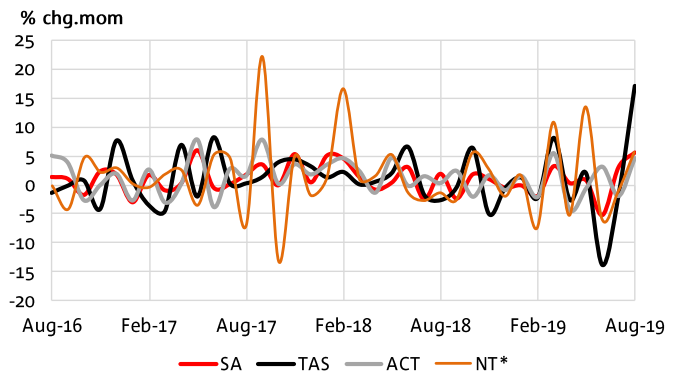
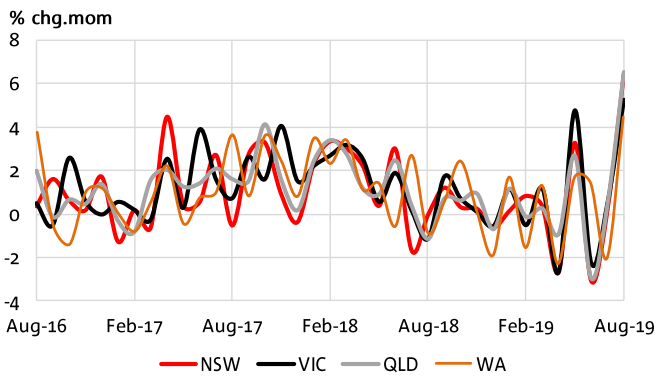


\* Note that the series representing Northern Territory is highly variable and should be used with caution.

Charts 7 & 8: Online sales by category, seasonally adjusted

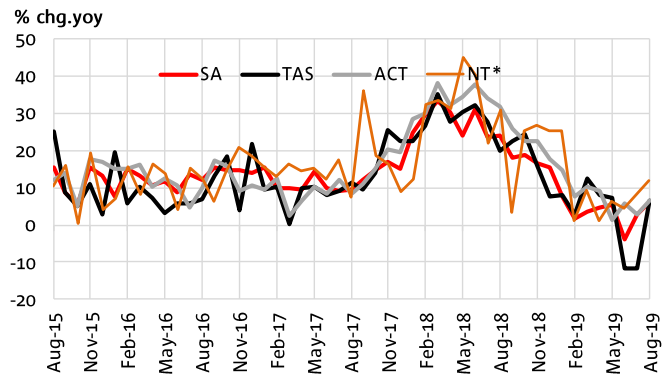
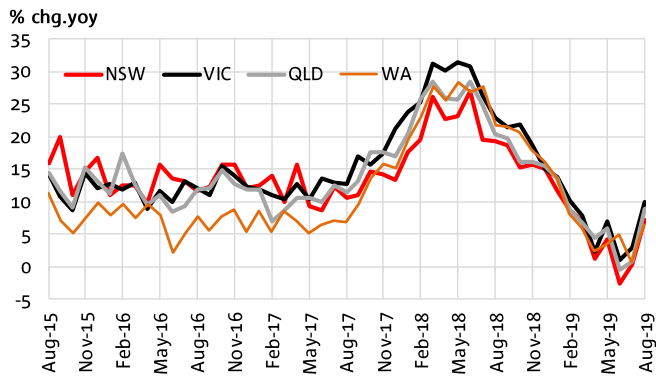


Charts 9 & 10: Online sales by state, trend



\*Note that the series representing Northern Territory is highly variable and should be used with caution.

Charts 11 & 12: Online sales by state, yoy, s.a.



Charts 13 & 14: Online sales by merchant location

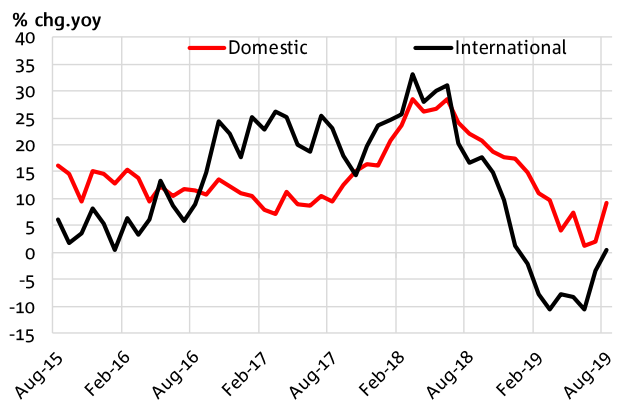
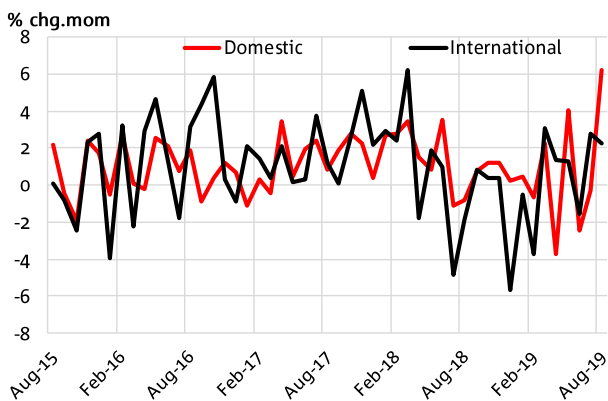


Table 3: Online sales by category and merchant location- Domestic, International (Int'l)

%	Monthly growth – Domestic	Monthly growth – Int'l.	Annual growth – Domestic	Annual growth – Int'l.	Domestic Share of Category Spend	Int'l Share of Category Spend	Overall Category Spend Share
Fashion	1.4	1.1	1.5	-2.9	77.9	22.1	12.5
Department stores	-0.6	5.9	39.8	4.5	87.0	13.0	13.8
Homewares and appliances	13.2	2.7	-3.7	-0.7	95.9	4.1	26.8
Media	21.8	7.6	-0.5	3.9	91.2	8.8	8.7
Personal and Recreational	0.9	-0.5	1.4	-6.0	86.6	13.4	14.6
Grocery and Liquor	2.4	14.3	14.4	-9.4	94.7	5.3	13.9
Games and Toys	9.7	-3.8	23.1	15.1	75.4	24.6	6.5
Takeaway Food	1.9	-3.6	78.8	17.9	98.0	2.0	3.2
All categories	6.2	2.2	9.3	0.5	89.3	10.7	100.0

## METROPOLITAN AND REGIONAL SPEND

Chart 15: Online retail sales growth by region, mom s.a.

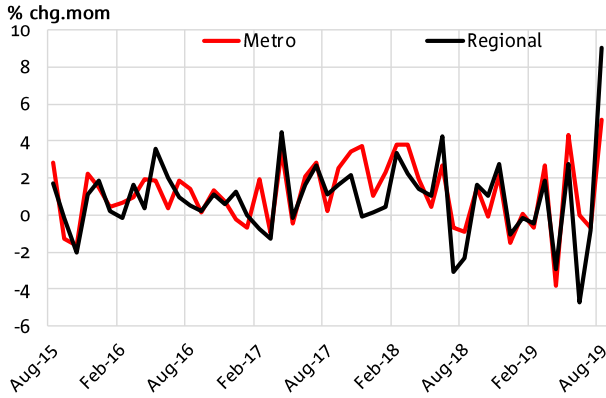
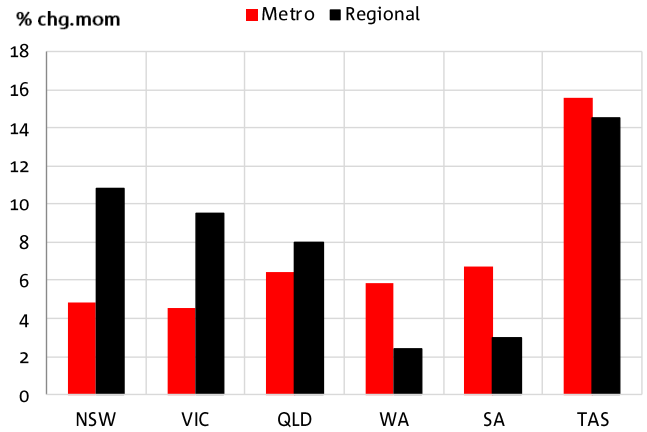
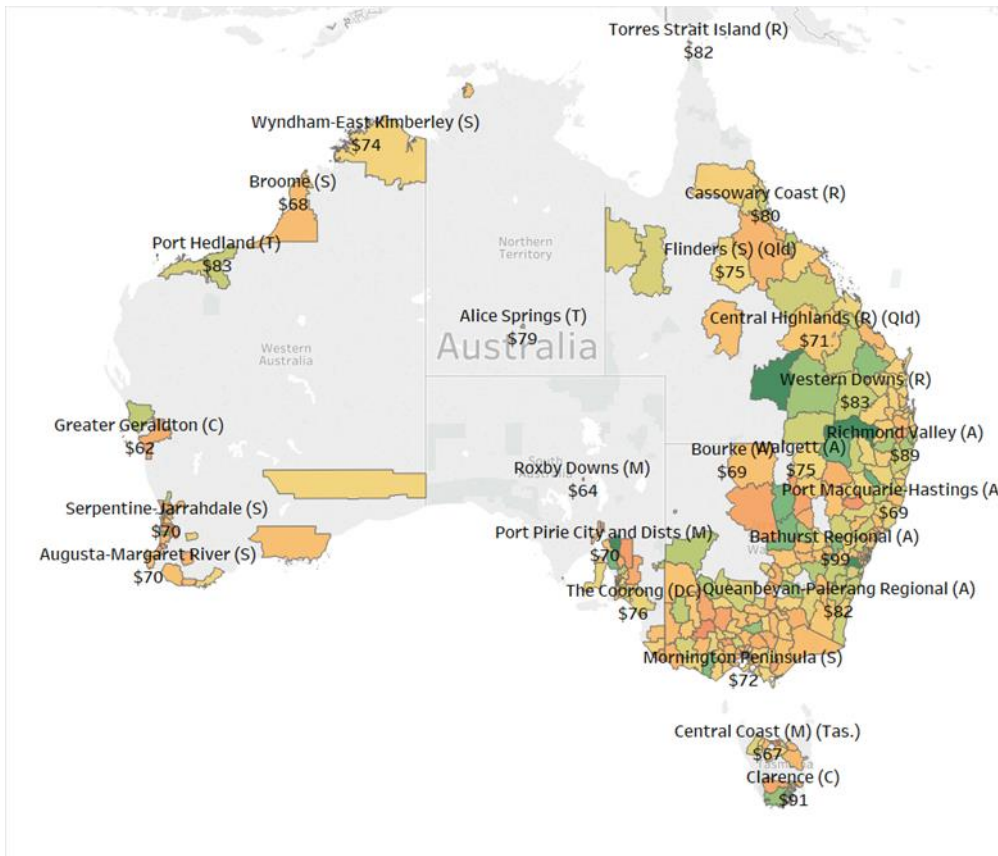


Chart 16: Online retail sales growth by state region, mom s.a.



## A HEATMAP VIEW OF AVERAGE ONLINE SPEND BY LOCAL GOVERNMENT AREA

Online spend can vary depending on where people live. The map below shows average spend for each online transaction. Not all the top average spend areas are in capital cities, nor are they all in remote areas.



## APPENDIX: METHODOLOGY

The NAB Online Retail Sales Index is now sourced in-house and is produced by Group Economics. We have made some significant changes to the NAB online series. Importantly, we have merged SME and Corporate Online into a single index, and provide more detail by region and industry on a monthly basis.

It is derived from NAB transactions data that have been assigned from particular merchant codes to retail industries by state. To keep the series reasonably consistent with past series, we have left these category descriptions broadly unchanged, albeit we now include new entrants to the Australian market. Against that, we have however removed the standalone previously reported category of 'Daily Deals', as this category was considerably volatile and caused statistical issues with indirect seasonal adjustment.

The NAB Online Retail Sales Index measures all Online Retail spending by consumers using various electronic payment methods such as credit cards, BPAY, and Paypal. We have made adjustments for where merchants appear to be wholesaling goods as opposed for final household consumption, and also incorporate new standards involving purchases using stored customer details. The index is derived from personal transaction data from NAB platforms and is scaled up to be representative of the economy by using scalars including ABS Estimated Resident Population, and RBA payments data.

NAB electronic transactions data for the compilation of this series is collected in real time at event record level, which allows significant flexibility to segment the data by age, time, location and merchant type. In future months, we plan to expand the data provided from the series as we bed-in acceptable seasonal adjustment factors for the new series. Transactions included in these data may incorporate purchases by Card, BPAY, Bank Transfers, Direct Debits and Paypal services where available, and include transactions with Australian and international merchants. Spending represented here includes transactions we have identified as online. NAB's estimate of the online retail market is larger than that of the official ABS measure of Online retail trade as it covers businesses that may not be within the remit of the ABS business register, such as overseas online retailers.

In the previously published series, we were using online retail sales by merchants with turnover greater than \$2.5m ('Corporate') as a proxy for online sales growth of the whole online market. This was due to the shorter time series of the previous market estimate and associated seasonal adjustment issues. With the new extract, we now have sufficient time series, and the growth rates represented are for the total market – i.e. Corporate and SME combined in a single series.

The data captures electronic retail online transactions and is therefore subject to the changing nature and take-up rate of electronic payment methods. Hence, change in growth in the overall transaction value may be attributable to either an increased preference towards a payment type by consumers (such as buy now pay later schemes), or a change in the level of spending across the economy by consumers, i.e. a pick-up in nominal online sales. We continue to work to isolate these effects.

Customer spending is based on where the customer lives, which may or may not be where the actual spending activity occurs. Customers without an Australian residential address are excluded.

These estimates are developed from transaction micro level data are then aggregated to higher level categories based on transaction attributes. The data is made representative of national sales activity by applying both demographic attributes to customer location using the ABS Estimated resident population, and comparing NAB transaction data to RBA payments system data.

The industry and state data have been seasonally adjusted using Tramo-SEATS with a trading day and Easter adjustment. Given the relatively short time frame for the data, this seasonal adjustment process should be regarded as provisional: estimates are likely to change as a longer run of data becomes available, and can be revised from month-to-month given the concurrent process. The trends have been extracted from the same process. Note that the NORSI series prior to December 2018 was using Census Bureau Seasonal adjustment, and a Henderson 13 was applied for trend.

Our aim is to have a data series that is as reflective as possible of online retail spend. As such, each month we will revise previous data to take into account changes in payment processing such as chargebacks and delayed payments.



Given these attributes, typically, larger revisions occur to the most recent months, and diminish as the data ages, but the latter effect cannot be excluded.

Our data differs to that of the ABS series as the NAB series covers a broader spectrum of online retailers – overseas merchants selling to Australian residents for example, and categories that substitute for previously retail purchased goods. Categories such as music and book retailing, and electronic games form part of the current online estimate. These are now substitutes for what may have been purchased in-store, but are now provided by online media streaming companies. While these may not fit the strict retail trade definition, our data reveals that they are increasingly being used by customers who previously purchased media in-store. We incorporate these companies into our estimate of online retail sales.

As part of the continual improvement of the series, this month we have revised our total market estimates. We have identified and removed potential wholesale trade transactions made on personal accounts. We have also identified more transactions that are made using a 'stored credentials' technique of online purchases. This technique is increasing in popularity as consumers opt for convenience especially with purchases made using mobile apps. Finally, in March 2018 the RBA made changes to its Payments System Data which we use as an input into our estimate of online total market size. These revisions are retrofitted to the series history.

We have also added a comparison based on metropolitan and regional areas. The definition of these geographical areas is based on the ABS geographical concordance tables, specifically the Greater Capital City Statistical Areas (GCCSAs).

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