



NAB ONLINE RETAIL SALES INDEX JULY 2019

NAB Group Economics

- The NAB Online Retail Sales Index contracted (-2.0%) in July on a month-on-month, seasonally adjusted basis. This follows a contraction in June (-1.8% mom, s.a).
- In year-on-year terms, the NAB Online Retail Sales Index contracted (-1.1% y/y s.a.) in July after a barely positive June (0.1%). This is the first time in the series history where the series has contracted in year-on-year terms. It is worth noting that this result is compared to July 2018 where growth was 24%.
- July data shows sales for five of the eight online retail categories contracting in month-on-month growth terms. The largest sales category, homewares and appliances (-6.5% mom, s.a.), was a key contributor to the headline result given its relative weight in the index. Media, personal and recreational goods, fashion and department stores also contracted in the month. The smallest sales category, takeaway food, again recorded the fastest growth in the month. For more detail, see Charts 3, 5, 7 & 8 below.
- In month-on-month terms, all states and territories recorded a contraction in sales growth. Tasmania (-5.2%) led the monthly decline in sales growth along with WA and NT.
- In July, the contraction in spend growth was more pronounced in regional areas at -3.9% (mom, s.a.), relative to metro, led by regional Tasmania (-7.7%). WA and SA metro areas went against the broader result to record considerably weaker online retail spend growth relative to regional areas in the month. See Charts 15 and 16 for more detail.
- At -2.7%, domestic online retailers performed considerably worse in month-on-month terms relative to international competitors which remained positive in the month (+0.6% mom, s.a.). However, in year-on-year terms, from our series, considerable weakness in international online sales remains. See charts 13 and 14, and table 3 for category growth and share.
- We estimate that in the 12 months to July, Australians spent \$29.33 billion on online retail, a level that is just over 9% of the traditional bricks and mortar retail sector (June 2019, Australian Bureau of Statistics), and about 11.5% higher than the 12 months to July 2018.
- See comments from NAB's Chief Economist, Alan Oster, on page 2.

	Year-on-year growth (% s.a.)		
	May-19	Jun-19	Jul-19

NAB Online Index	4.9	0.1	-1.1
ABS Traditional Retail	2.4	2.5	

	Month-on-month growth (% s.a.)		
	May-19	Jun-19	Jul-19

NAB Online Index	3.2	-1.8	-2.0
ABS Traditional Retail	0.1	0.4	

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

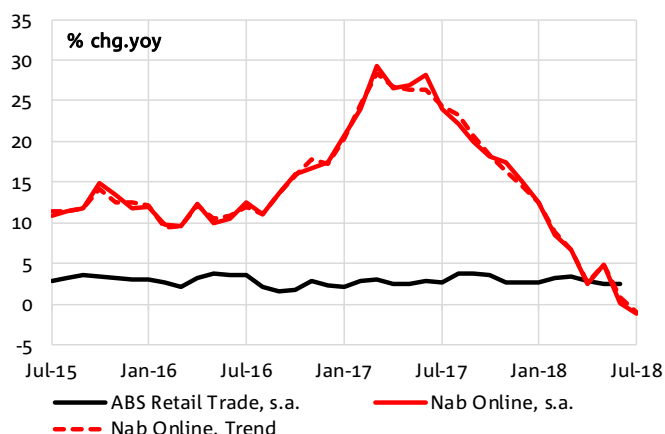
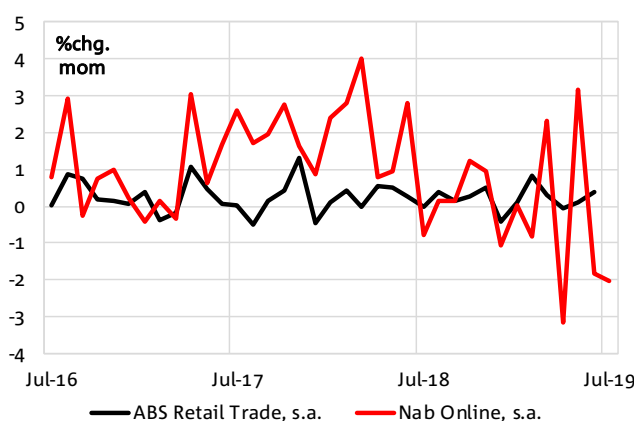


Chart 2: NAB Online retail trade data, s.a.



NAB Chief Economist, Alan Oster commented:

Our NAB Online retail sales index data indicates that sales growth was negative in July 2019, following on from an almost flat result in June. Online retail sales tend to be more volatile than broader retail, experiencing far greater monthly fluctuations. Looking through the month-to-month volatility, sales growth through the year turned negative for the first time in the series history. It is worth noting, however, that year-on-year growth comparisons are made to a period of elevated sales in 2018. At that time, major new online merchants established an Australian presence, and pre-GST exemptions were in effect.

The weak result for the largest sales category, homewares and appliances contributed significantly to the headline result. With a couple of exceptions, sales for this category has been on the weaker side since October 2018. So much so, that its share of the online index has dropped from around 28% at that time to about 26.6% now. Other large categories like fashion, and personal and recreational were also slower, along with media. The much smaller spend share takeaway food led both month-on-month and year-on-year growth in July. This sector has undergone structural changes by way of high profile exits and consolidation, so the latest result needs to be read with this in mind. Of the larger categories, grocery and liquor, which represents around 14% of the index, weathered the overall trend and grew in both month-on-month and year-on-year terms.

Albeit a small sales state, Tasmania had recorded a considerably strong result in March, but since that time has been persistently negative, and is now down markedly in year-on-year terms. While sales growth across all states were weaker in the month, VIC, SA and NT remained positive in year-on-year terms, though this was not sufficient to reduce the effect of the sales growth decline from the other states.

This month, the sales growth rate for metropolitan and regional areas contracted with the headline index, albeit with regional areas faring worse (-3.9%). The overall result for Tasmania appears to be driven by a significant drop in regional sales, as metro sales for that state were one of the least negative.

By merchant location, domestic (-2.7%) fell in the month while international grew mildly (0.6%). The result was due to key sales categories (Homewares and appliances, personal and recreational, fashion, media) contracting for domestic, but growing for international. Having said that, in year-on-year terms, sales growth for international retailers remains negative.

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.

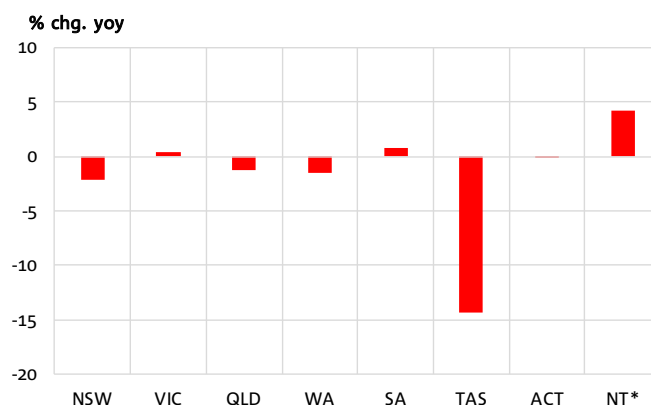
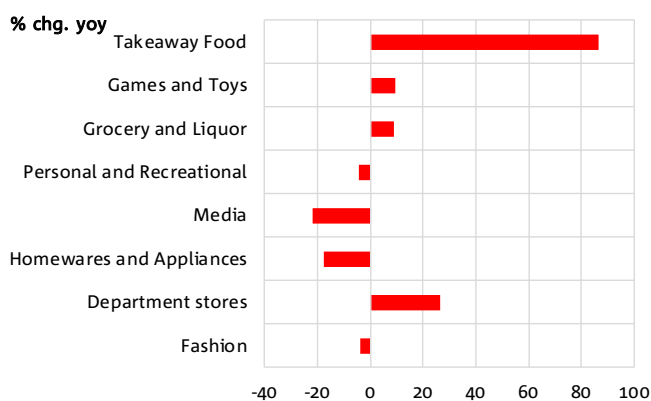


Chart 5: Online retail sales by industry, mom s.a.

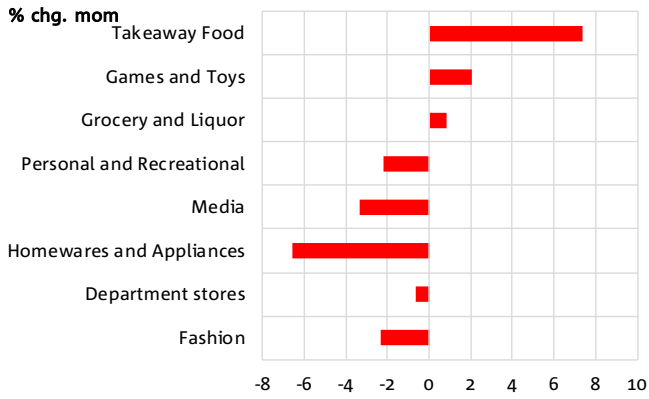
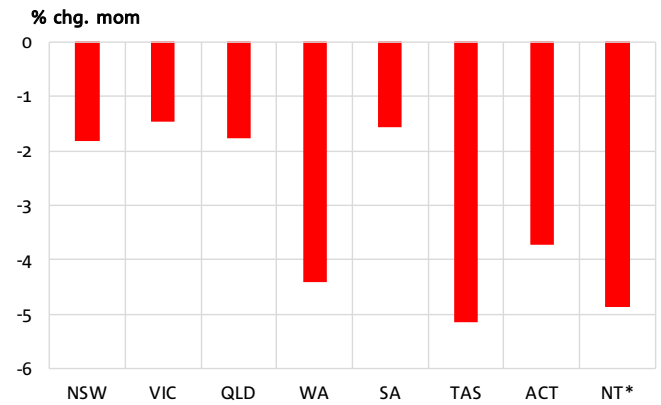
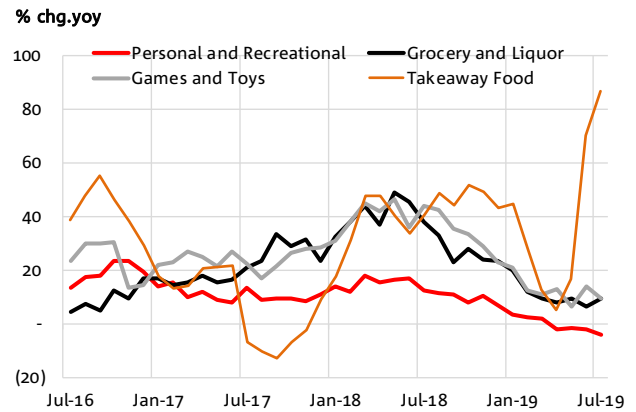
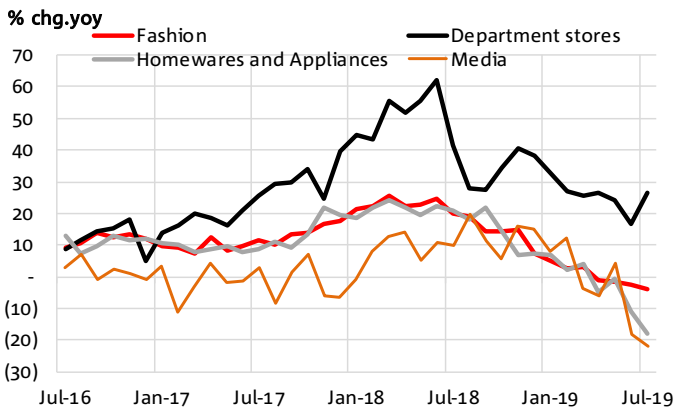


Chart 6: Online retail sales by state, mom s.a.

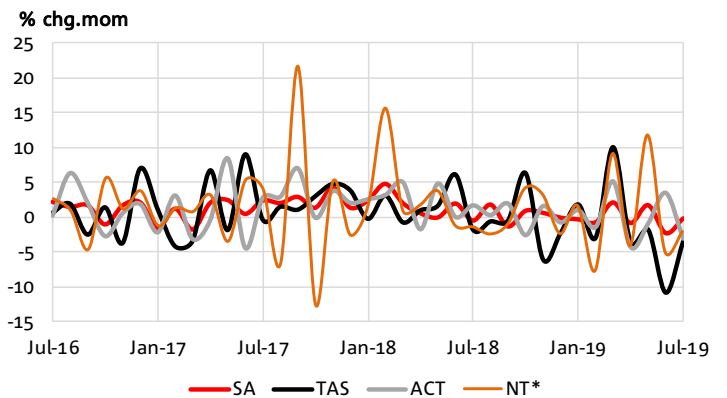
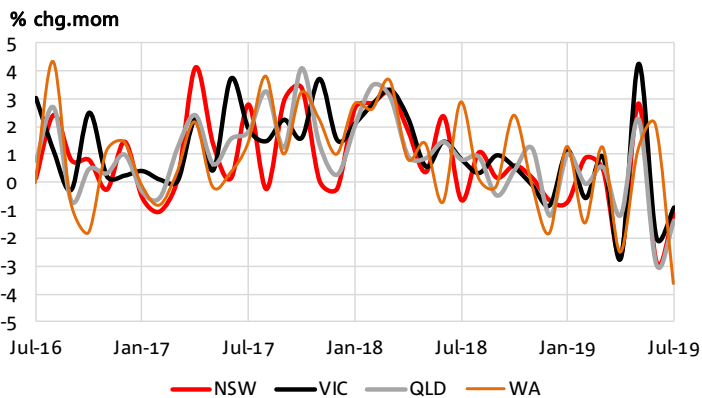


* Note Northern Territory series is highly variable, use with caution

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

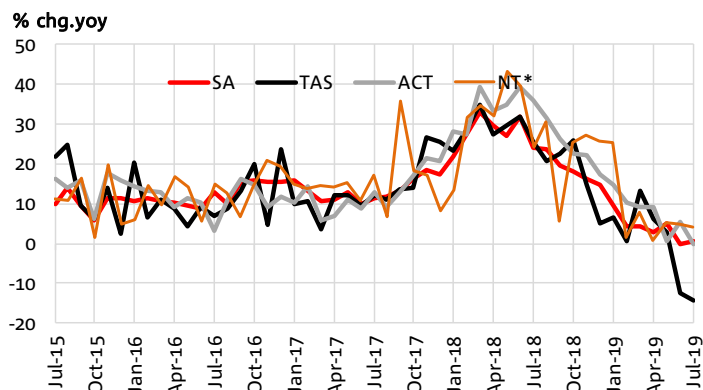
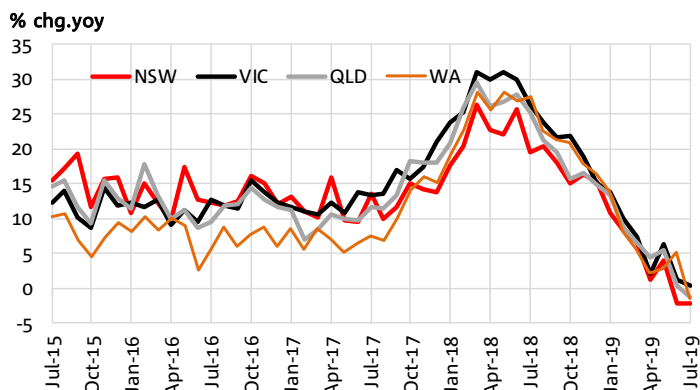


Charts 9 & 10: Online sales by state, trend



*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

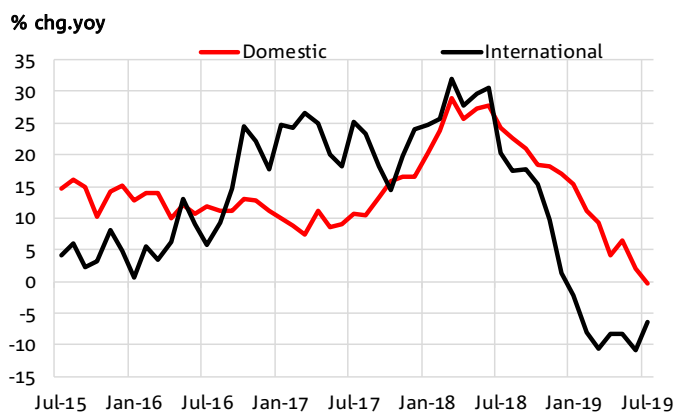
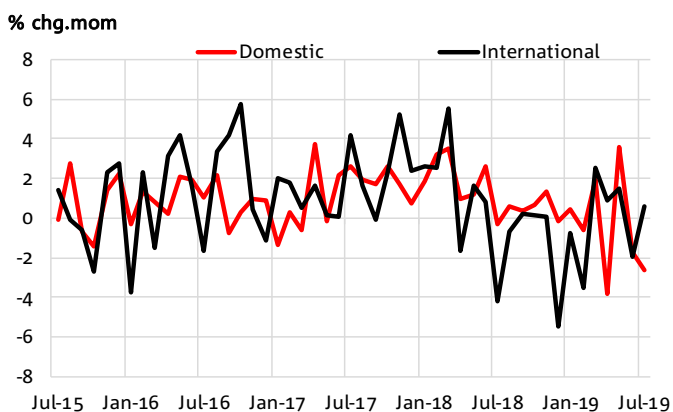


Table 3: Online sales by category and merchant location- Domestic, International(Int'l)

%	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	-3.2	0.9	-1.4	-8.6	77.8	22.2	12.6
Department stores	0.4	1.5	34.0	-9.7	86.7	13.3	13.6
Homewares and appliances	-7.7	3.4	-18.9	-1.7	95.7	4.3	26.6
Media	-7.6	2.7	-24.8	-7.4	90.9	9.1	8.8
Personal and Recreational	-1.8	-0.3	-3.2	-9.5	86.5	13.5	14.8
Grocery and Liquor	0.1	0.7	12.2	-27.3	94.6	5.4	13.9
Games and Toys	2.9	-2.3	8.2	13.0	75.1	24.9	6.5
Takeaway Food	7.4	-1.6	85.7	19.3	97.9	2.1	3.1
All categories	-2.7	0.6	-0.4	-6.5	89.0	11.0	100.0

METROPOLITAN AND REGIONAL SPEND

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

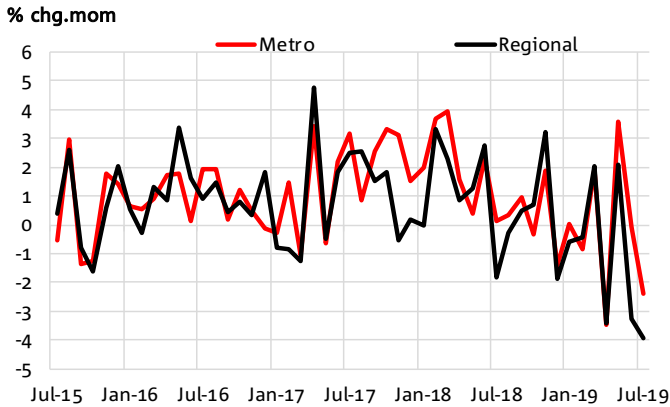
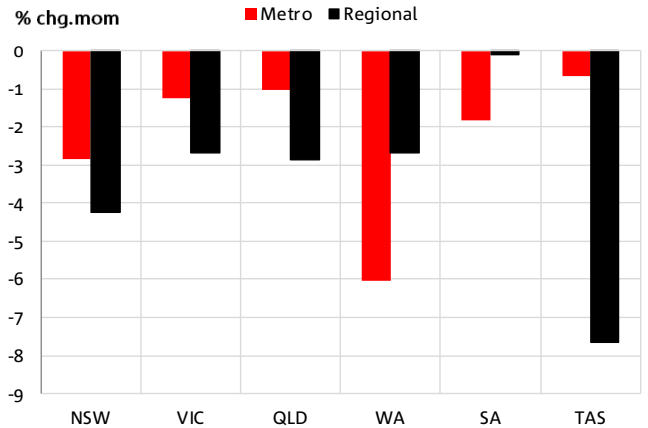
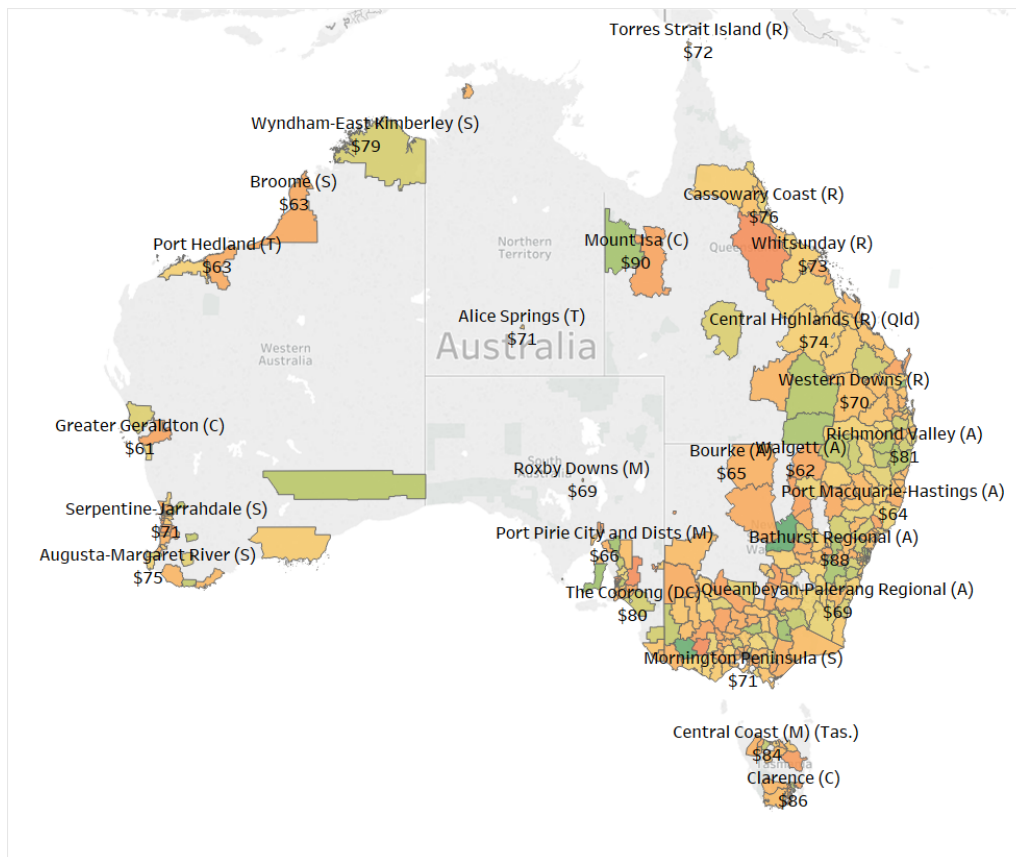


Chart 16: Online retail sales growth by State region, mom s.a.



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 (for more details see Appendix). 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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