



NAB ONLINE RETAIL SALES INDEX SEPTEMBER 2022

NAB Group Economics

- On a month-on-month, seasonally adjusted basis, the contraction in growth, which has been a feature of the index for most of the year, ended with a return to growth in September (0.2%), following on from a contraction in August (revised -3.3%, previously -3.5%).
- In year-on-year terms however, the NAB Online Retail Sales Index recorded another large contraction in September (-20.6% y/y). It is again worth noting this is compared to a period of exceptionally strong growth in September 2021 (+29.5%).
- Mixed results by sales category this month, with large sales category, homewares and appliances, along with fashion, personal and recreation, and games and toys contracting. This was slightly outweighed by department stores, grocery and liquor, takeaway food, and media, which recorded growth. In year-on-year terms, takeaway food, and media, continue to grow, defying the overall trend. For more detail, see charts 3, 5, 7 & 8 and table 3 below.
- A contraction in the two largest sales states, NSW and VIC, was outweighed, albeit slightly, by growth in all other states in the month. In year-on-year terms, however, the much larger contraction in NSW, VIC, and ACT outweighed growth in WA, SA, TAS and NT. Again, some perspective is warranted here, with the comparison made to a period in 2021 of exceptionally high growth. See charts 4, 6, 9-14, and table 3 for more detail.
- Regional areas in all states, except WA and TAS, recorded growth in September. In contrast, metro areas recorded another contraction, with the result strongly influenced again by metro VIC, and to a lesser extent, NSW. In year-on-year terms, overall growth in both metro and regional areas continued to contract, albeit, for regional, at about half the rate of metro areas. This was again mostly due to VIC and NSW. See Charts 15 and 16 for more detail.
- Marginal growth recorded for both domestic and international retailers in the month. Fashion, which is a key share category of international retailers, recorded a stronger contraction relative to domestic, while the headline result for department stores was clearly driven by domestic retailers. Over the year, domestic retailers recorded a contraction more than double the rate of international, but again, this is partly reflecting the considerable base growth a year prior for domestic retailers. See charts 13 and 14, and table 4 for category growth and share.
- NAB estimates that in the 12 months to September, Australians spent \$53.82 billion on online retail, a level that is around 13.5% of the total retail trade estimate (August 2022, Series 8501, Australian Bureau of Statistics), and about 4.7% higher than the 12 months to September 2021.
- See comments from NAB's Chief Economist, Alan Oster, on page 2.

Year-on-year growth (% s.a.)			
	Jul-22	Aug-22	Sep-22
NAB Online Index	-7.9	-18.7	-20.6
ABS Retail Trade	16.5	19.2	-

Month-on-month growth (% s.a.)			
	Jul-22	Aug-22	Sep-22
NAB Online Index	-1.6	-3.3	0.2
ABS Retail Trade	1.3	0.6	-

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 and ABS retail sales

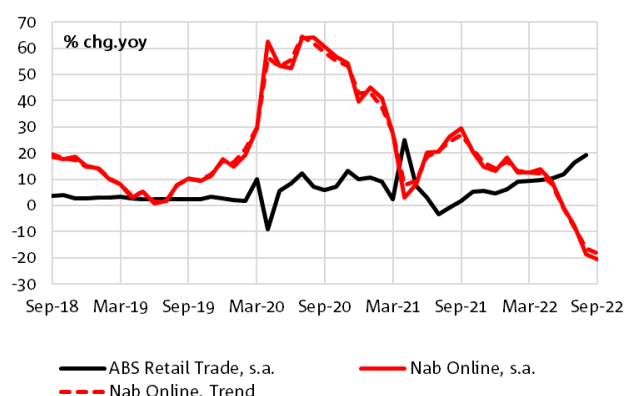
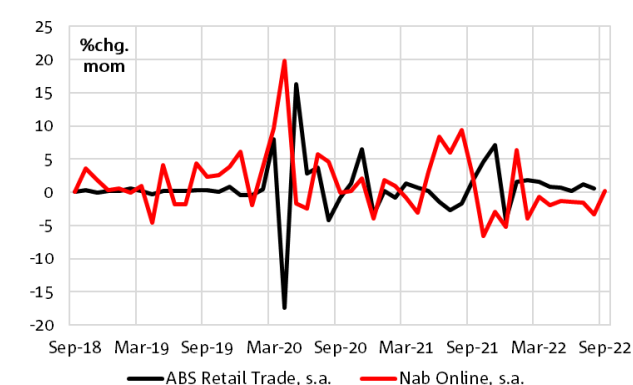


Chart 2: NAB Online retail trade data (mom, s.a.)



NAB Chief Economist, Alan Oster commented:

In month-on-month terms, our NAB Online Retail Sales Index ended seven months of contraction, with slight growth in September. However, these rolling monthly contractions have well and truly caught up with the year-on-year metric. As mentioned previously, it is worth keeping this in context, with most states during the September quarter 2021 experiencing some form of lockdown, which boosted online sales.

Online sales growth in September 2021 remained elevated, particularly led by NSW, and VIC. To give further perspective, if we compare the current headline total to that of the same month pre-COVID (i.e. September 2022 vs September 2019), total online spend is up about 71%. This compares favourably to broader retail sales (up 26.7% on August 2019), indicating that while there has been weakness in year-on-year terms, the broader long-term strength of online retail remains intact. Having said that, the pace of the broader retail series has been considerably strong, far beyond the average growth in the decade immediately prior to the pandemic. This strong growth in overall retail sales, and the recent subdued nature of online, has meant that the share is now smaller as a result.

We have mentioned in previous iterations the three clear standout categories over the past year, in terms of contribution to growth (through the year terms) - department stores, grocery and liquor, and takeaway food. Another category with strong contribution to index growth has been media. It has recorded growth in 9 of the past 12 months, and while representing about 7% of the index, has contributed over double that to index growth. Part of this might be due to inflationary pressures, as the average spend per transaction has increased. However, in recent months, the volume of transactions has also begun to trend up again after easing in 2021. The media story also seems to be associated with areas outside metropolitan Melbourne and Sydney. This can be seen in this month’s map section.

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

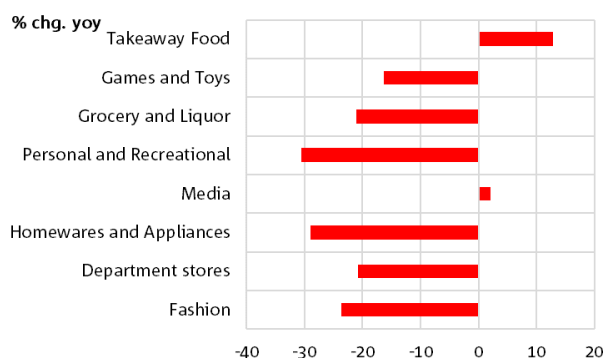


Chart 4: Online retail sales by state, yoy s.a.

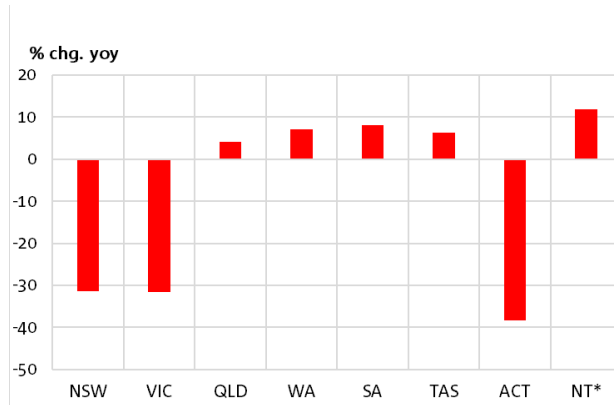
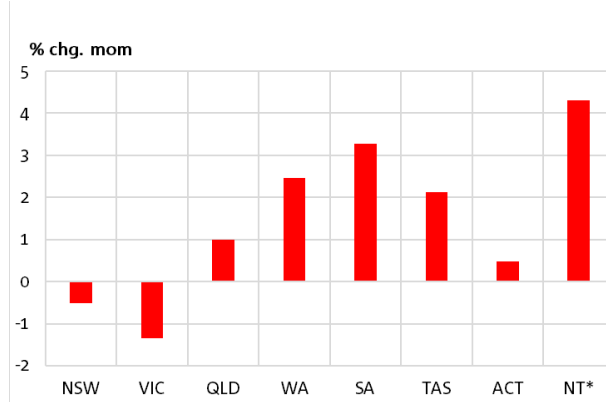


Chart 5: Online retail sales by category, mom s.a.

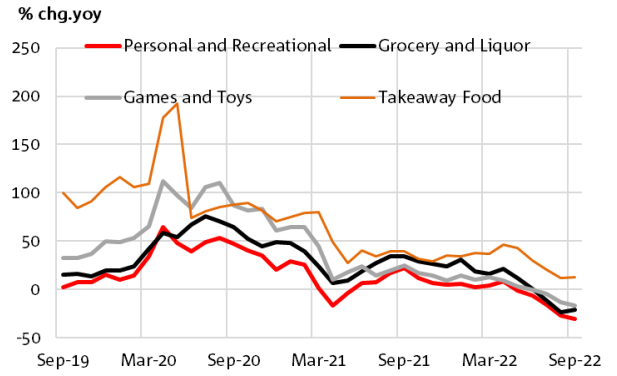
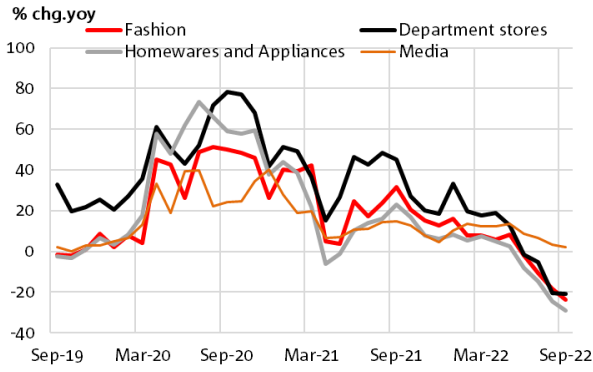


Chart 6: Online retail sales by state, mom s.a.

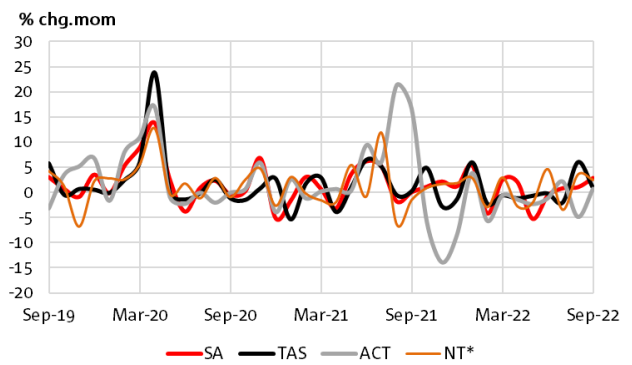
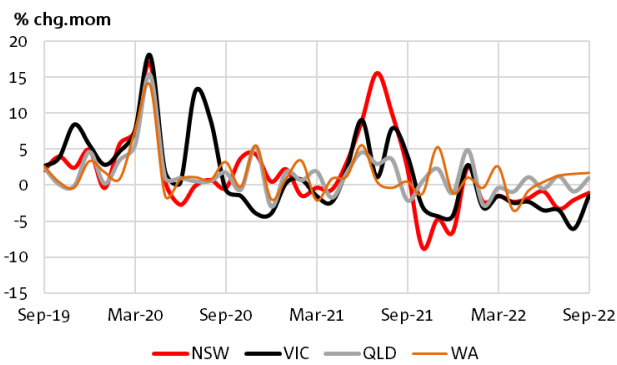


* Note that the series representing Northern Territory is highly variable and should be used with caution.

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

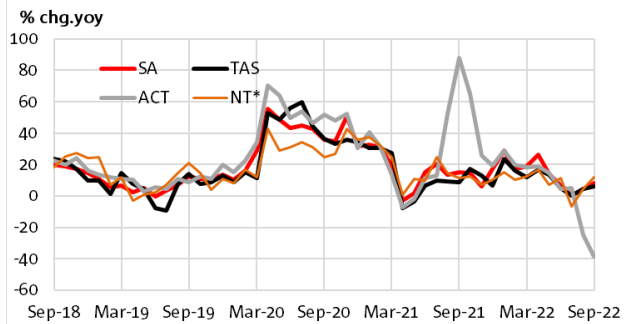
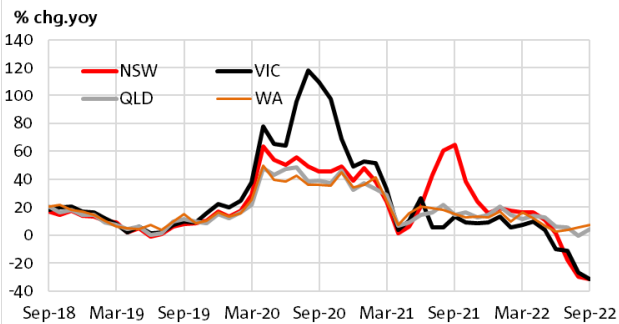


Charts 9 & 10: Online sales by state, trend



*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

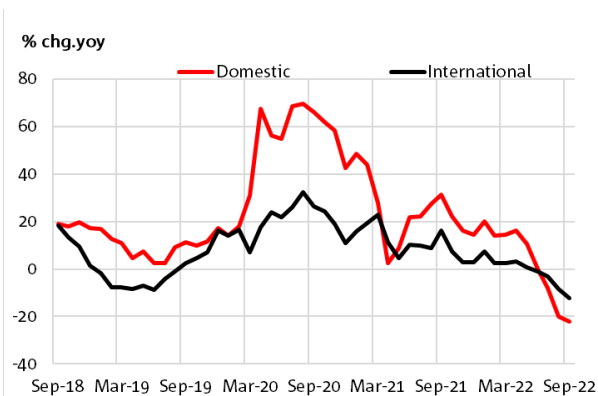
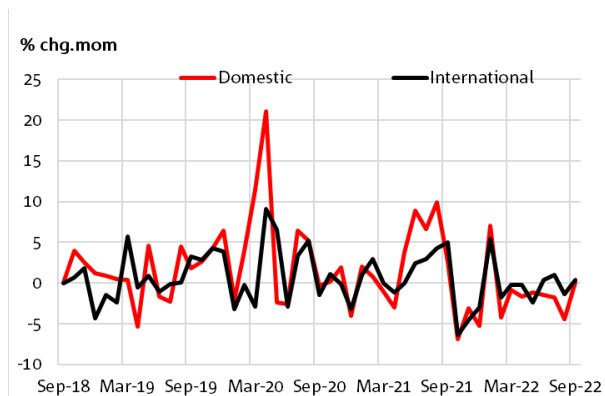


Table 3: Online sales by category and state

% (mom,s.a.)	Fashion	Dep't stores	Home & appliances	Media	Personal and Rec.	Grocery and Liquor	Games and Toys	T'away Food	Total
ACT	-4.8	0.3	10.0	1.7	-7.2	-3.9	-6.1	6.1	0.5
NSW	-2.4	1.1	-4.5	1.2	-0.9	1.5	-1.1	5.1	-0.5
NT	10.5	11.2	-5.9	5.1	-0.6	7.5	0.5	10.2	4.3
QLD	1.8	0.4	-1.0	2.6	0.5	1.4	1.3	6.1	1.0
SA	4.6	3.2	7.5	1.9	2.7	-0.0	-1.5	6.0	3.3
TAS	0.6	13.8	2.2	-0.4	-3.7	-1.4	-9.6	14.8	2.1
VIC	-4.1	-0.6	-4.2	0.7	-7.1	1.4	-1.8	7.6	-1.3
WA	-0.6	7.5	1.6	2.3	-0.4	1.5	2.7	4.1	2.5
Total	-1.5	1.3	-2.0	1.5	-2.1	1.2	-0.7	6.2	0.2

Table 4: 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	-1.8	-3.4	-26.9	-11.9	82.9	17.1	10.8
Department stores	1.0	-1.8	-21.7	-15.4	91.9	8.1	16.8
Homewares and appliances	-2.7	4.8	-30.7	-7.9	96.3	3.7	22.2
Media	2.0	1.7	5.2	-23.3	91.9	8.1	6.7
Personal and Recreational	-3.4	-3.0	-33.9	-24.1	89.5	10.5	11.3
Grocery and Liquor	1.4	7.0	-22.4	0.6	96.6	3.4	16.0
Games and Toys	0.9	4.2	-16.2	-6.7	82.9	17.1	8.9
Takeaway Food	6.5	-4.6	11.5	151.8	99.0	1.0	7.4
All categories	0.03	0.3	-21.5	-11.5	92.1	7.9	100

METROPOLITAN AND REGIONAL SPEND

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

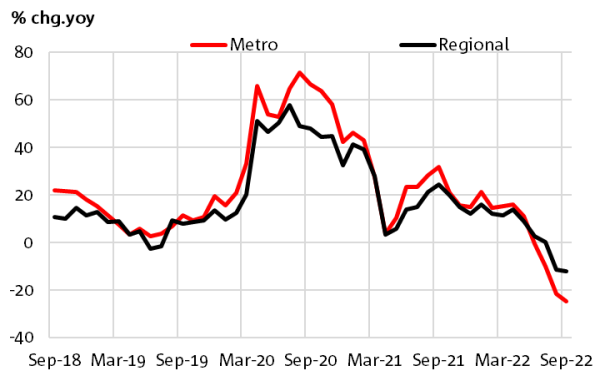
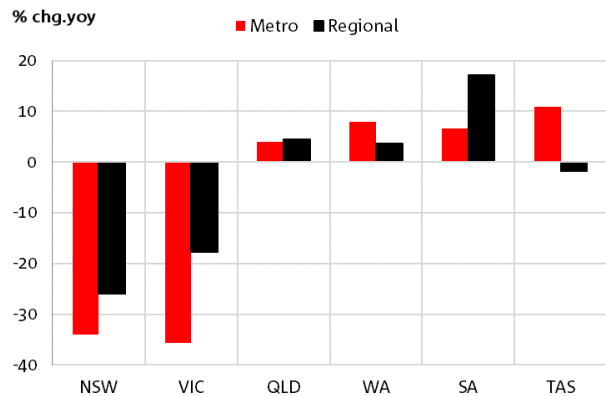


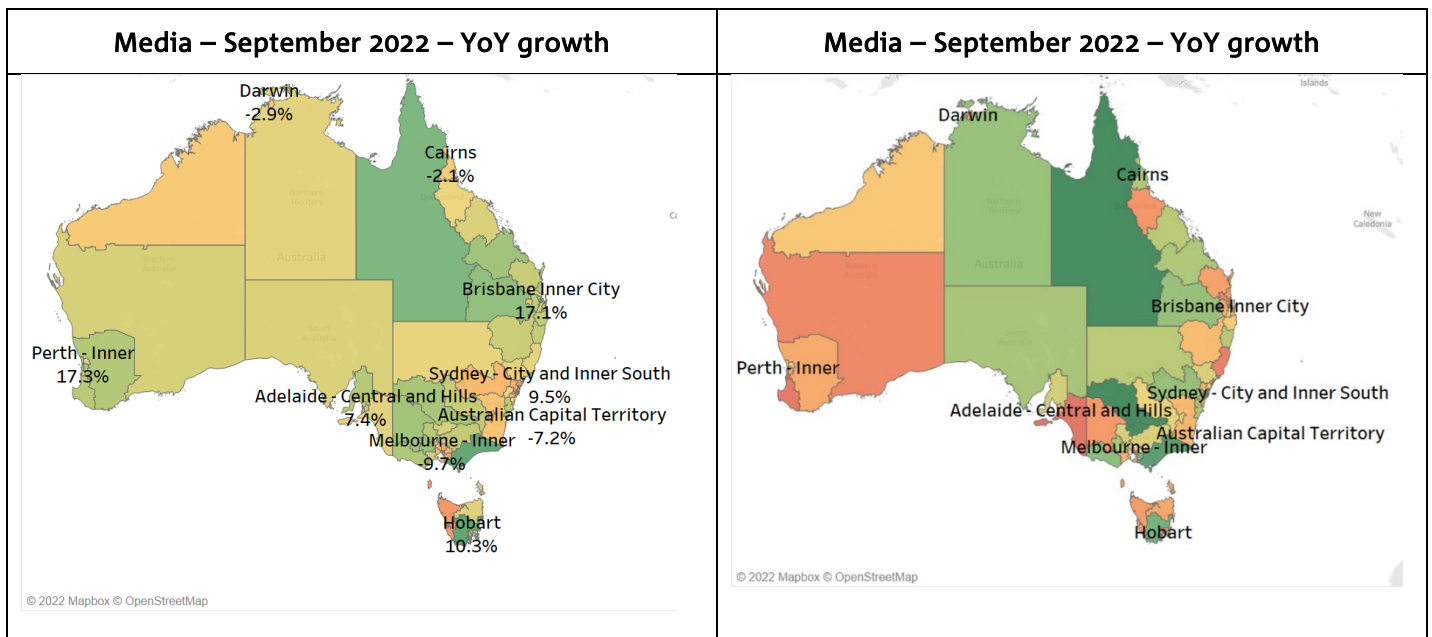
Chart 16: Online retail sales growth by state region, yoy s.a.



A HEATMAP VIEW OF SPEND GROWTH – MEDIA – YEAR ON YEAR, BY STATISTICAL AREA (SA4)

This month we look at the change in online spend for for the media category, by ABS statistical area (SA4). The media category includes merchants such as newsagents, book stores, and music and visual retailers (including streaming services). Growth rates have been higher in most regional areas relative to metro areas over the past year (i.e. September 2022 vs September 2021). This is partly due to the considerable growth in particular metro areas during the lockdown period in 2021. There is also a higher average spend in some of the corresponding regional growth areas (right pane).

What is also noticeable is the transaction volume growth in some regional areas. When we created the graphic for growth (left pane) earlier in the year, some areas could not be displayed due minimum thresholds. Now, areas such as Outback NT can be displayed given an increase in sales volume in those 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 most recent ABS Estimated Resident Population, and comparing NAB transaction data to RBA payments system data. Changes in these data is reflected in the NORSI market size estimate timeseries.

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.

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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