



# NAB ONLINE RETAIL SALES INDEX OCTOBER 2022

NAB Group Economics

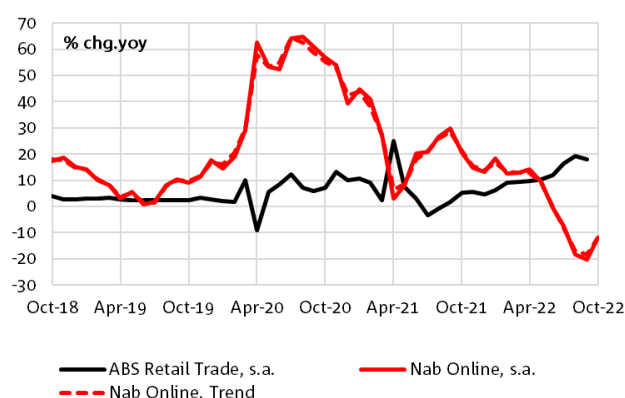
- On a month-on-month, seasonally adjusted basis, the return to growth observed in September (revised 0.4%, previously 0.2%), strengthened in October (2.2%) after contracting for most of the year.
- In year-on-year terms however, the NAB Online Retail Sales Index recorded another contraction (-11.8% y/y) in October, albeit an improvement on the September result. It is again worth noting this is compared to a period of exceptionally strong growth the year prior (October 2021, 20.6%).
- All categories, except takeaway food, recorded growth in month-on-month terms. Growth was led by small sales category, media, which accelerated in October, along with personal and recreational goods. Larger sales categories, homewares and appliances, grocery and liquor, and department stores recorded more moderate growth. In year-on-year terms, media, and takeaway food continue to grow, defying the overall trend. For more detail, see charts 3, 5, 7 & 8 and table 3 below.
- After contracting in September, the two largest sales states, NSW and VIC, rebounded to lead growth in October, contributing heavily to the overall result. In year-on-year terms, however, the much larger contraction in NSW, VIC, along with TAS and ACT, outweighed growth in WA, SA, 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 and metro areas in all states, except SA and TAS, recorded growth in October, although regional NSW and QLD growth was fairly moderate. Growth for metro areas was primarily driven by VIC, NSW and to a lesser extent WA. In year-on-year terms, the large contraction in VIC was heavily influenced by the metro result, while in NSW it was regional areas that fared slightly worse. See Charts 15 and 16 for more detail.
- Growth recorded for both domestic and international retailers in the month, with the latter slightly stronger. Domestic retailers contributed strongly to the headline result for media. In contrast, growth was stronger for international personal and recreational goods 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 effects of 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 October, Australians spent \$53.43 billion on online retail, a level that is around 13.3% of the total retail trade estimate (September 2022, Series 8501, Australian Bureau of Statistics), and about 2.3% higher than the 12 months to October 2021.
- See comments from NAB's Chief Economist, Alan Oster, on page 2.

	Year-on-year growth (% s.a.)		
	Aug-22	Sep-22	Oct-22
NAB Online Index	-18.4	-20.2	-11.8
ABS Retail Trade	19.2	17.9	-

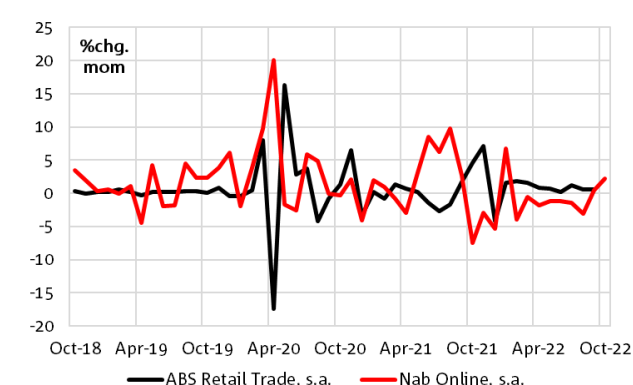
	Month-on-month growth (% s.a.)		
	Aug-22	Sep-22	Oct-22
NAB Online Index	-3.1	0.4	2.2
ABS Retail Trade	0.6	0.6	-

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.)**



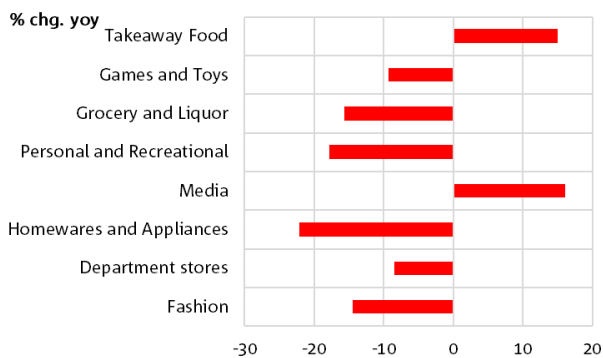
**NAB Chief Economist, Alan Oster commented:**

In month-on-month terms, growth in the NAB Online Retail Sales Index is back in positive territory, with an acceleration in October, on the back of slight growth in September. The latest result has also helped improve the year-on-year metric, albeit the measure continues to contract. As mentioned previously, this is mostly due to the base effects from the lockdown in 2021, which boosted online sales.

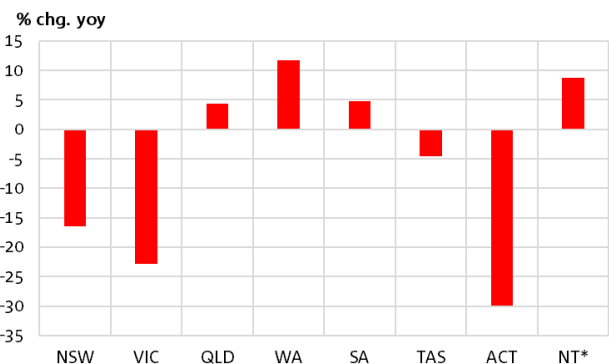
This base effect is clearly evident in the results for VIC, NSW, and ACT. In year-on-year terms however, these results, like the headline, are an improvement on the September observations. This may indicate that the base effects are beginning to ease. NSW, the ACT, and Victoria ended lockdowns during October 2021, and a return to in-store sales ensued. Conditional on whether the recent results form a trend, we could see year-on-year growth back to neutral by the end of the year. Having said that, cost of living pressures, driven by strong inflation and the impact of higher interest rates, are likely to temper any resurgence.

By category this month, media, and personal and recreational goods, were clear performers. With growth in ten of the past twelve months, media has contributed over a third of all online sales growth over the same period, well above its weight in the index. By contrast, with generally sluggish sales over the past twelve months, personal and rec goods' share of the index has slipped somewhat. Both categories have however seen the average spend per transaction increase over the past year, more so for media. This may be partly attributed to inflation, where spend has increased at a rate beyond that of the volume of transactions. One of the largest increases in average spend observed over the past twelve months was for homewares and appliances, which accords well with external price measures.

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



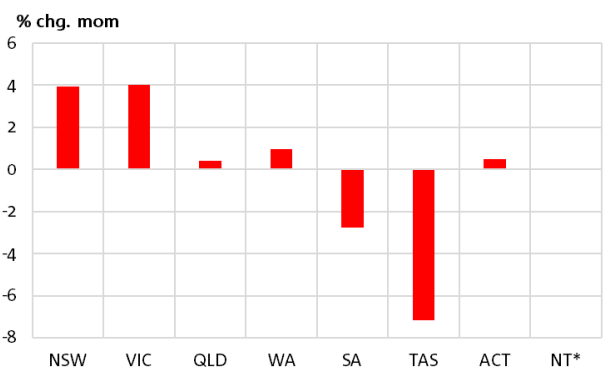
**Chart 4: Online retail sales by state, yoy s.a.**



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

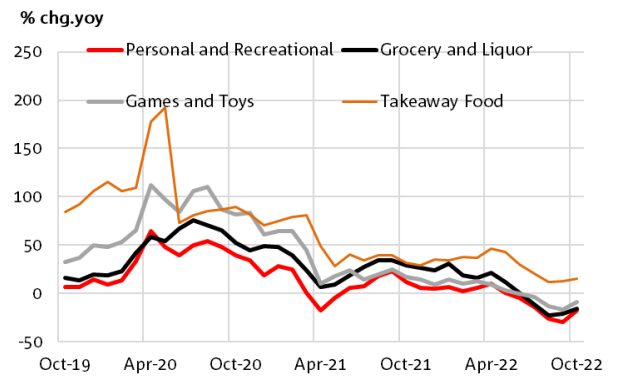
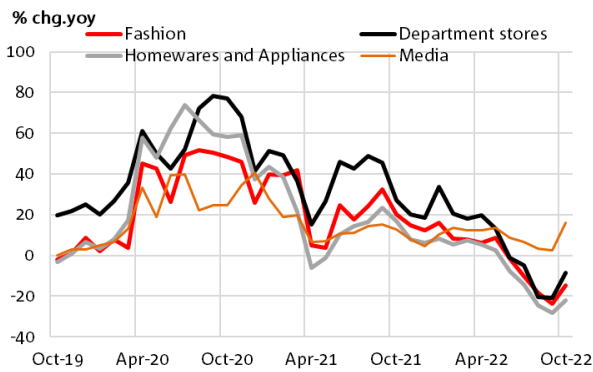


**Chart 6: Online retail sales by state, mom s.a.**

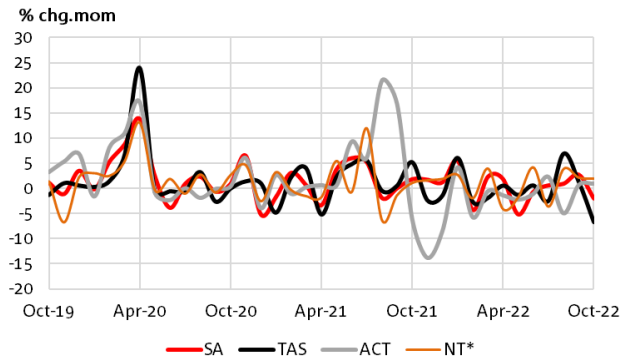
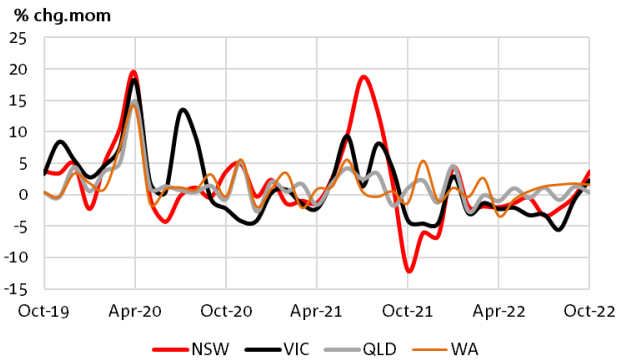


\* Note that the series representing Northern Territory is highly variable and should be used with caution.

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

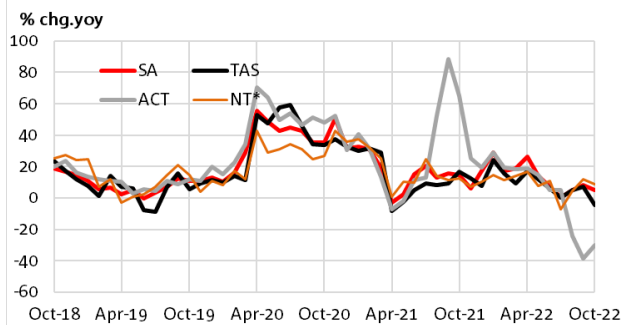
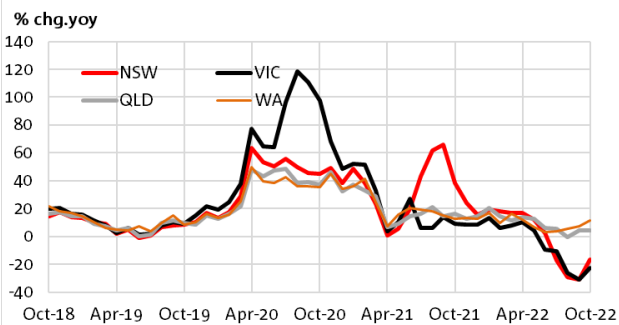


**Charts 9 & 10: Online sales by state, trend**



\*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

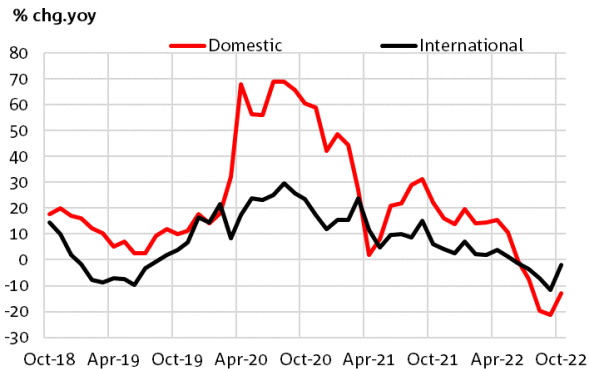
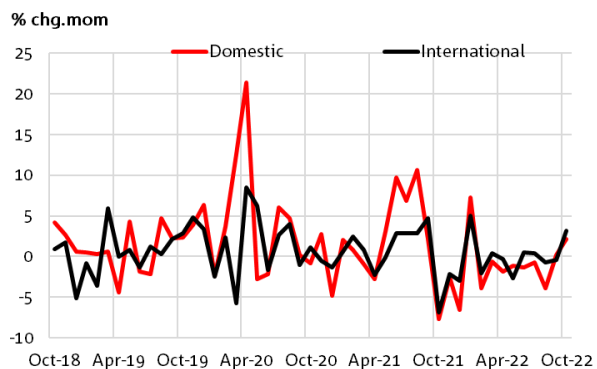


Table 3: Online sales by category and state

% (mom,s.a.)	Fashion	Dep't stores	Home & appliances	Media	Personal and Rec.	Grocery and Liquor	Games and Toys	T'away Food	Total
ACT	6.5	-8.1	-8.3	10.6	5.4	3.6	8.1	7.7	0.5
NSW	6.2	2.1	5.0	8.4	6.8	0.5	3.7	1.6	3.9
NT	-12.0	-7.2	6.9	8.8	-2.2	-5.4	11.9	8.8	-0.0
QLD	0.8	0.7	-1.1	4.6	1.8	1.0	-1.5	-1.4	0.4
SA	-3.2	-3.9	-9.8	8.2	2.3	-2.7	2.1	-3.9	-2.8
TAS	-8.9	-4.8	-24.9	5.2	7.1	1.0	0.2	2.9	-7.2
VIC	3.1	4.0	3.9	9.3	6.8	4.0	4.1	-1.7	4.0
WA	2.0	-3.7	-0.5	8.8	2.7	-0.7	5.1	3.3	1.0
<b>Total</b>	<b>3.0</b>	<b>1.1</b>	<b>1.0</b>	<b>7.9</b>	<b>4.8</b>	<b>1.3</b>	<b>2.7</b>	<b>-0.0</b>	<b>2.2</b>

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	2.9	4.2	-16.9	-5.1	82.7	17.3	10.7
Department stores	0.4	2.6	-8.4	-8.1	91.9	8.1	16.8
Homewares and appliances	2.4	0.0	-23.3	-1.8	96.2	3.8	22.0
Media	8.0	3.9	18.1	-1.8	92.0	8.0	6.8
Personal and Recreational	6.0	9.4	-18.4	-5.4	89.4	10.6	11.3
Grocery and Liquor	2.2	-2.2	-16.7	5.2	96.6	3.4	15.9
Games and Toys	1.8	-1.4	-12.5	1.9	82.7	17.3	8.9
Takeaway Food	-0.1	1.7	14.9	133.8	99.0	1.0	7.6
<b>All categories</b>	<b>2.2</b>	<b>3.1</b>	<b>-12.8</b>	<b>-2.1</b>	<b>92.1</b>	<b>7.9</b>	<b>100</b>

## METROPOLITAN AND REGIONAL SPEND

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

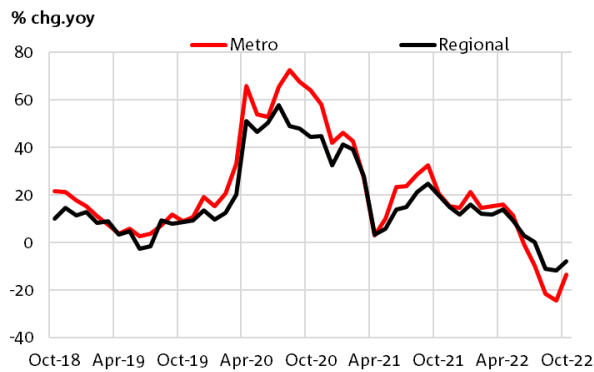
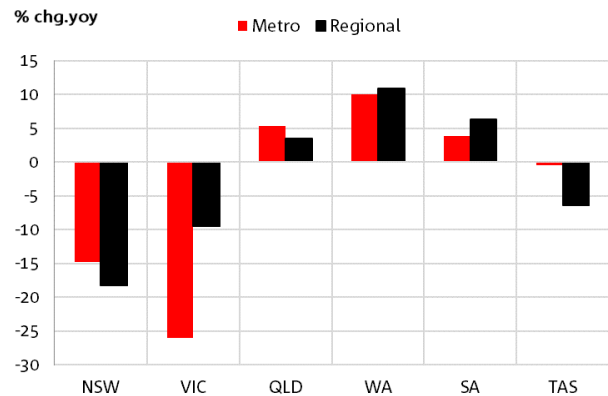
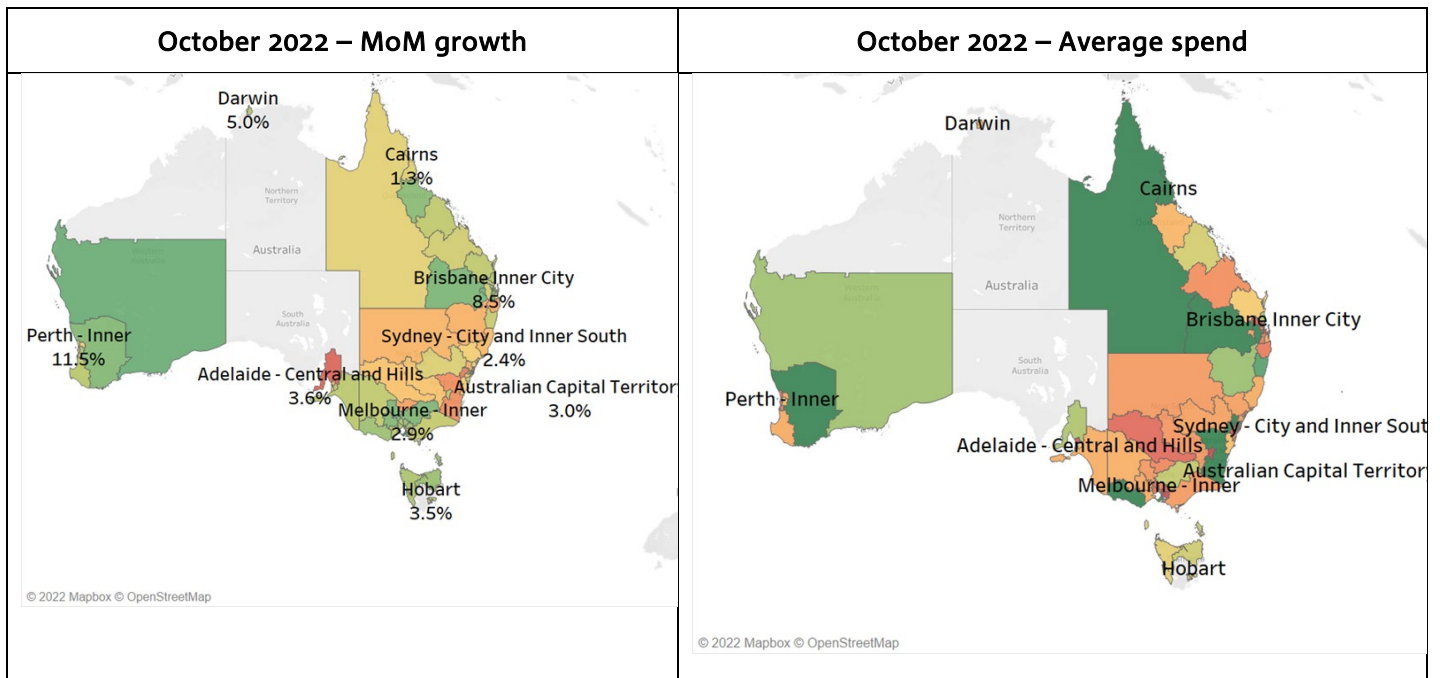


Chart 16: Online retail sales growth by state region, yoy s.a.



## A HEATMAP VIEW OF SPEND GROWTH – GROCERY AND LIQUOR – STATISTICAL AREA (SA4)

This month we look at the change in online spend for the Grocery and Liquor category, by ABS statistical area (SA4). In October, monthly growth rates (mom, n.s.a.) were higher for inner Perth and Brisbane, with Melbourne and Sydney recording more moderate growth. Average spend per transaction (right pane) tends to be highest in regional areas, or in statistical areas in capital cities that are some way from the centre. This may suggest that an area’s distance from a major hub, and frequency of orders, have some bearing on the value of each order.



## 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 are 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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