



# NAB ONLINE RETAIL SALES INDEX DECEMBER 2022

NAB Group Economics

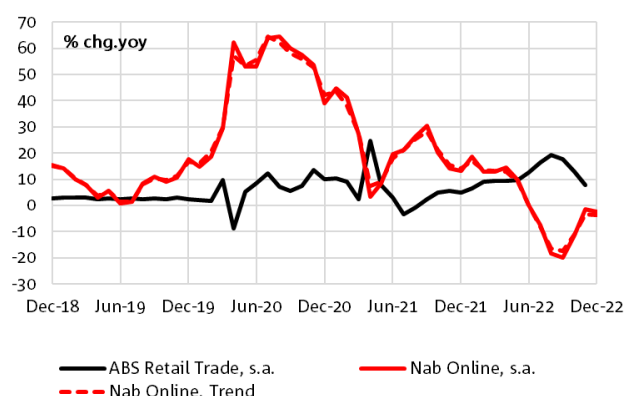
- On a month-on-month, seasonally adjusted basis, the return to growth observed from September ended in December, with a sizeable contraction (-4.6%) erasing part, but not all, of November's gain.
- In year-on-year terms, the contraction, which had eased in November, worsened in December (-2.5% y/y), albeit not to the extent of the double-digit extent observed between August and October.
- Two categories, takeaway food, and media defied the overall result by recording growth. These categories, which represent a smaller share of online retail, were insufficient to offset the fall in larger sales categories. Weakness in the monthly result was more pronounced in homewares and appliances, fashion, and department stores, which make up about half the index. This partly retraced the gains in October and November. In year-on-year terms, media, takeaway food, department stores, and games and toys continue to grow. For more detail, see charts 3, 5, 7 & 8 and table 3 below.
- After strong growth in November, particularly for the two largest sales states, VIC and NSW, monthly growth contracted in December. Larger contractions were recorded for WA, ACT, and NT, while VIC and TAS fared better. The milder contraction in December for VIC follows on from that state recording the highest growth in November (11.2% mom, s.a.), relative to the other states. In year-on-year terms, the much larger contraction in NSW, SA and ACT weighed more heavily on the index relative to smaller falls in VIC, QLD and WA, and growth for TAS. See charts 4, 6, 9-14, and table 3 for more detail.
- While metro areas observed the largest gains in November, their contraction in December was only slightly worse than sales in regional areas. Metro VIC led sales growth in November (14.7% mom, s.a.) and recorded a contraction slightly better than the overall in December. In year-on-year terms, regional areas performed slightly better. This was the case in most states except WA and TAS. The large contraction in NSW was heavily influenced by the metro result, while in SA, regional areas recorded strong growth. See Charts 15 and 16 for more detail.
- A contraction in growth for both domestic and international retailers in the month, with the latter continuing to record growth in year-on-year terms. It is worth noting here that result (y/y) for international merchants is influenced heavily by the base effects of 2021. See charts 13 and 14, and table 4 for category growth and share.
- NAB estimates that in the 12 months to December, Australians spent \$53.26 billion on online retail, a level that is around 13% of the total retail trade estimate (November 2022, Series 8501, Australian Bureau of Statistics), and almost flat relative to the 12 months to December 2021.
- See comments from NAB's Chief Economist, Alan Oster, on page 2.

	Year-on-year growth (% s.a.)		
	Oct-22	Nov-22	Dec-22
NAB Online Index	-11.2	-1.3	-2.5
ABS Retail Trade	13.0	7.7	-

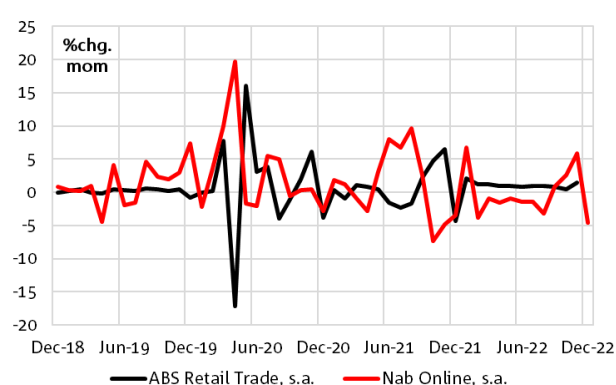
	Month-on-month growth (% s.a.)		
	Oct-22	Nov-22	Dec-22
NAB Online Index	2.6	5.8	-4.6
ABS Retail Trade	0.4	1.4	-

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 and ABS retail sales**



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



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

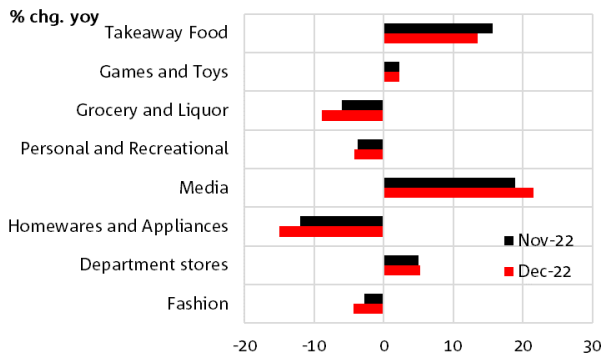
In month-on-month terms, growth in the NAB Online Retail Sales Index contracted after two months of growth in October and November. If we take a quarterly view to look through the monthly volatility, the result for Q4 relative to Q3 is positive, up circa 4.4%. This however is nominal, so it's worth noting that price effects are impacting the result. In year-on-year terms, the base effects of the past two years are beginning to somewhat ease, with the growth rate levelling off after tanking in Q3. Although the year-on-year rate appears to be stabilising, cost of living pressures, driven by strong inflation and the impact of higher interest rates, are also likely to temper any resurgence.

Both VIC and NSW exited lockdowns in October 2021, with the subsequent months for NSW remaining elevated, i.e. longer to return to a more 'normal' rate. Therefore, base effects for NSW in year-on-year are still clearly playing a part for that state, given the far milder contraction in VIC and other large sales states.

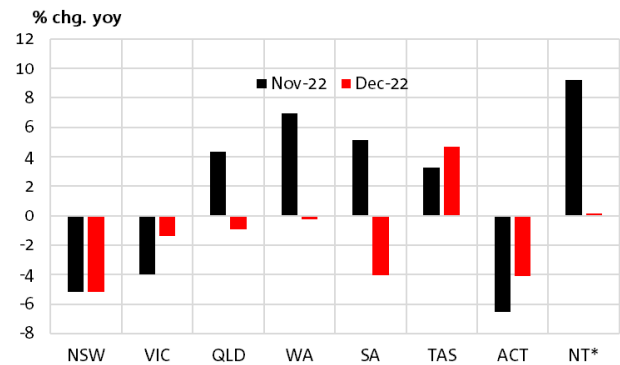
By category this month, there was a significant drop in the largest sales category, homewares and appliances. If we add the result from October and November, this sector is up compared to the September quarter, but the year-on-year decline is still negative, albeit, somewhat stabilising.

This month we take a brief look at the activity surrounding the Black Friday to Cyber Monday sales event. What we generally observe is that the event continues to grow. However, we also observe that the growth rate, when compared to prior years, reached a highpoint in 2019, with every subsequent year slower, including the pandemic period.

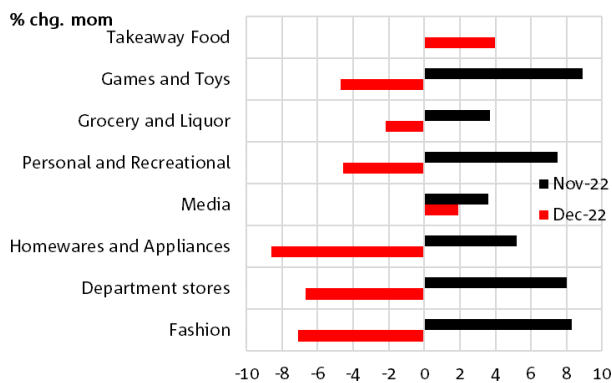
**Chart 3: Online retail sales by category, yoy s.a.**



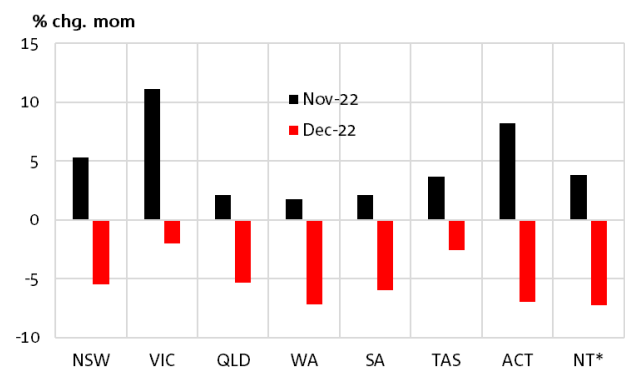
**Chart 4: Online retail sales by state, yoy s.a.**



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

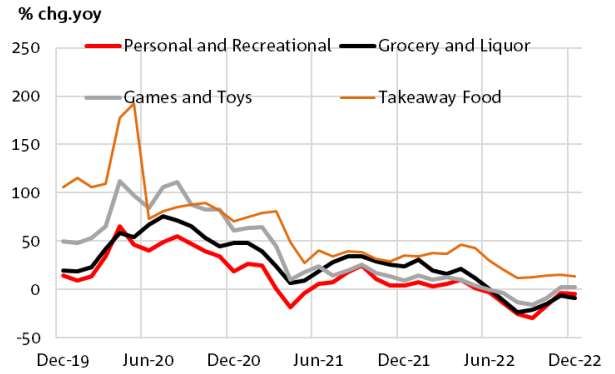
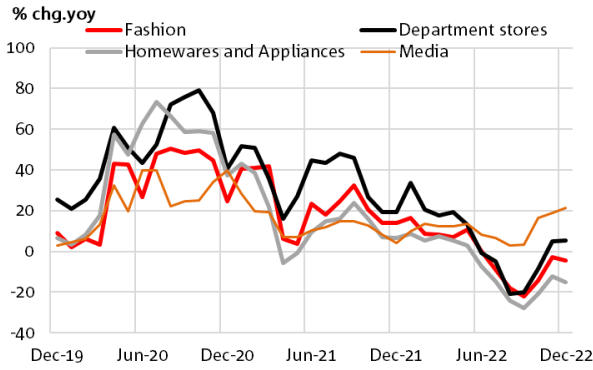


**Chart 6: Online retail sales by state, mom s.a.**

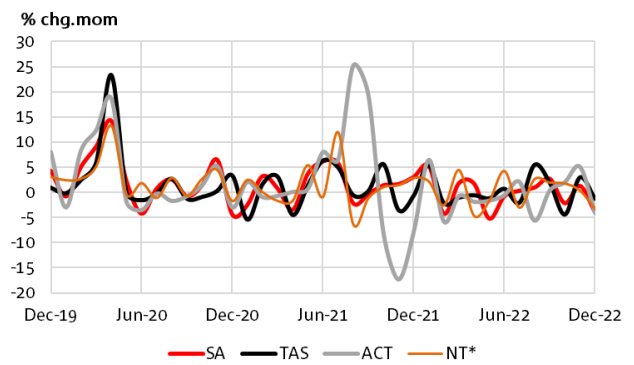
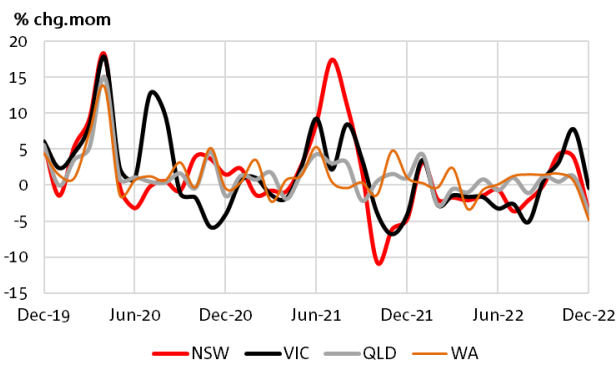


\* Note that the series representing Northern Territory is highly variable and should be used with caution.

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

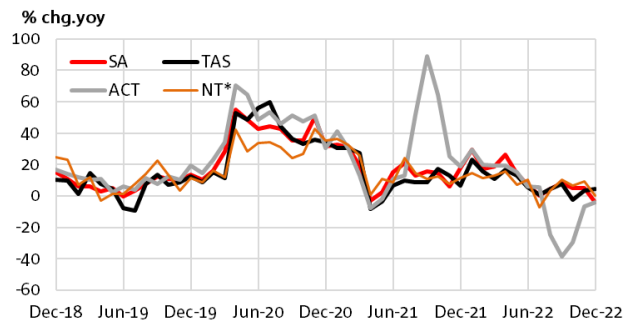
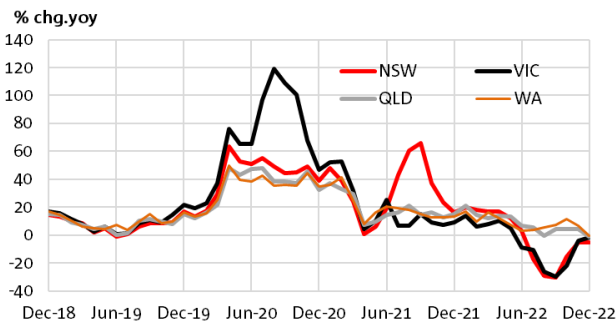


Charts 9 & 10: Online sales by state, trend



\*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

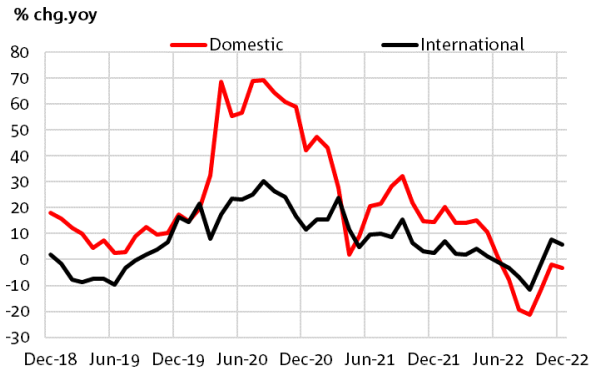
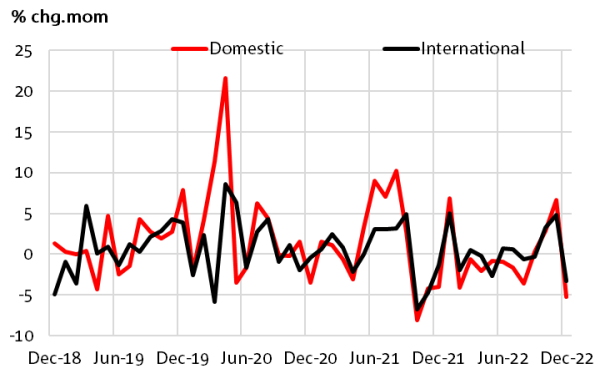


Table 3: Online sales by category and state

% (mom,s.a.)	Fashion	Dep't stores	Home & appliances	Media	Personal and Rec.	Grocery and Liquor	Games and Toys	T'away Food	Total
ACT	-10.8	-11.9	-12.5	0.2	-14.3	4.6	-10.0	9.4	-7.0
NSW	-6.9	-6.5	-10.4	2.2	-6.0	-4.7	-4.8	3.8	-5.5
NT	-12.6	-11.4	-15.3	4.0	-14.1	-7.0	-1.3	22.7	-7.3
QLD	-9.0	-8.6	-9.8	4.0	-4.2	-2.8	-3.8	2.5	-5.3
SA	-3.9	-9.9	-10.0	1.5	-6.5	-5.1	-3.7	1.3	-6.0
TAS	-14.1	-7.3	2.6	-2.0	-1.9	3.1	-9.6	2.5	-2.5
VIC	-5.7	-3.6	-4.4	0.6	-1.3	1.7	-4.0	4.6	-2.0
WA	-8.7	-10.5	-13.2	1.8	-8.1	-4.0	-8.1	5.0	-7.2
Total	-7.1	-6.7	-8.6	1.9	-4.6	-2.2	-4.7	4.0	-4.6

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	-5.8	-5.4	-3.4	-1.1	82.7	17.3	10.7
Department stores	-8.2	-3.5	5.0	1.4	91.9	8.1	17.0
Homewares and appliances	-7.3	-11.4	-15.2	2.8	96.1	3.9	21.5
Media	1.9	0.7	20.9	15.9	92.1	7.9	7.1
Personal and Recreational	-4.4	-2.2	-5.6	6.8	89.3	10.7	11.3
Grocery and Liquor	-1.6	-6.8	-8.3	-6.3	96.5	3.5	15.7
Games and Toys	0.0	-0.4	3.3	13.3	82.7	17.3	9.0
Takeaway Food	3.8	9.9	12.5	124.0	98.9	1.1	7.7
All categories	-5.2	-3.3	-3.2	5.7	92.0	8.0	100

## METROPOLITAN AND REGIONAL SPEND

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

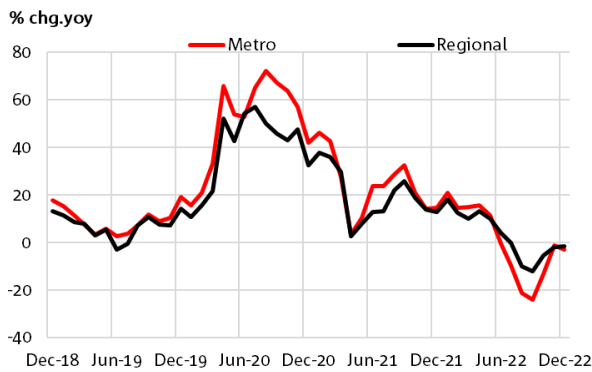
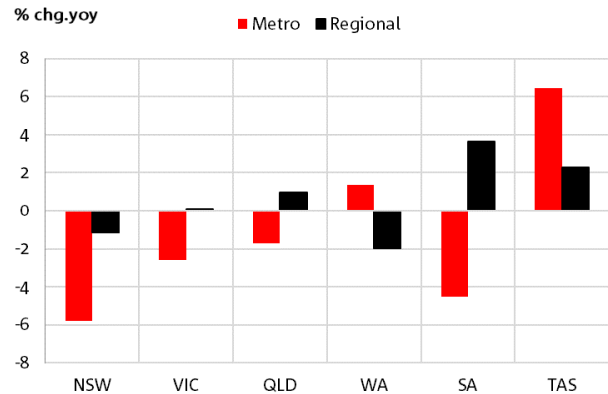


Chart 16: Online retail sales growth by state region, yoy s.a.

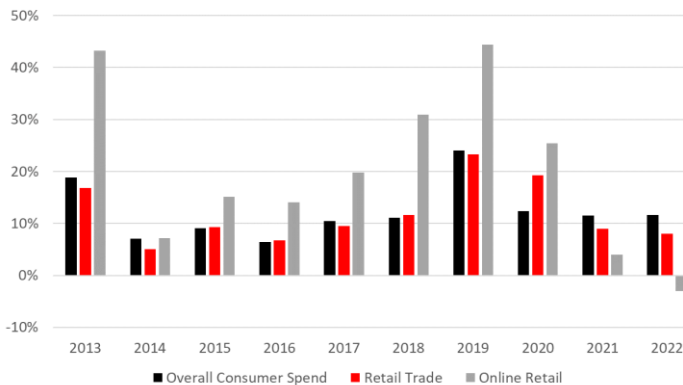


## BLACK FRIDAY TO CYBER MONDAY WEEKEND

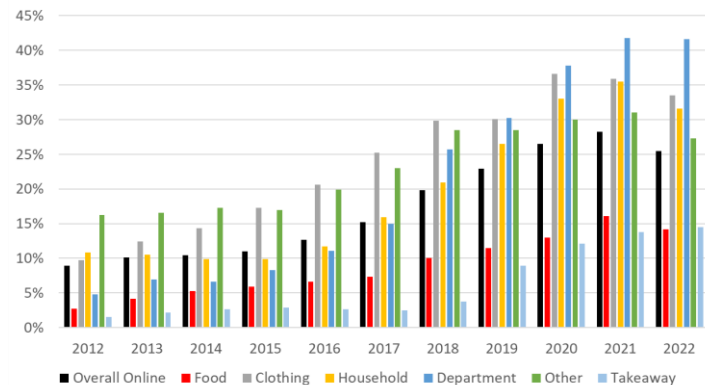
This month we take a brief look at the 4-day trading period known as Black Friday to Cyber Monday Weekend. We estimate that around 16.1% of all (online and instore) retail sales for the month of November 2022 occurred during this period, or around \$5.9bn. Just over one quarter of this was transacted online. This represents about 35% of all online sales for the month of November. Sales for the period are up approximately 8% relative to the same period in 2021. A large portion of this growth occurred instore, with year-on-year growth of about 11.3%, while growth in online retail sales for the specific period was lower than 2021. This is partly a result of the surge in online sales for the period that occurred in both 2019 and 2020. In addition, given the headline result for November online sales, although it was up compared to October (+5.8% mom, s.a.), it was lower compared to November 2021 (-1.3%), which is more comparable to the left pane chart below.

In share terms, online retail sales in November represented about 13% of total retail sales. However, for the four specific days of the sales event, this jumped to 25 percent. By category, the difference by category is quite stark. Since 2020, the online department stores have recorded the largest share relative to total sales for that category. In contrast, food (supermarkets, specialty, liquor) is more on-par with where it typically is in the index.

Black Friday To Cyber Monday Weekend Spend change on prior year event days



Black Friday To Cyber Monday Weekend Online share of Retail Trade by Category



## 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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