EMBARGOED UNTIL 11:30AM AEST, Thursday 3rd September 2020

NAB ONLINE RETAIL SALES INDEX JULY 2020

NAB Group Economics

- **The NAB Online Retail Sales Index accelerated rapidly in July (6.7%), on a month-on-month, seasonally adjusted basis. A strong contribution to the headline this month is the online sales activity from Victoria.**
- **In year-on-year terms, the growth in the NAB Online Retail Sales Index (+62.6% y/y) has broken the previous record set in April.**
- **All eight categories recorded a sales growth in month-on-month growth terms.** Growth was led by smaller sales categories, games and toys, and fashion, with these two categories rebounding from weakness in the prior two months. Second largest category, grocery and liquor, has now recorded continuous growth for the past 13 months. With moderate but stable growth over this period, the category is the third fastest in year-on-year growth terms. The largest sales category, homewares and appliances, was second slowest in the month. The result for this category was saved from contraction by a strong growth in Victoria, and to a lesser extent NT and SA. For more detail, see Charts 3, 5, 7 & 8 and table 3 below.
- **In month-on-month terms, the two largest online sales states led growth, with Victoria the clear standout, recording growth well above the other states.** Tasmania has now recorded three consecutive months of contraction in online sales growth, though this is on the back of an exceedingly strong April result. In year-on-year terms, all states recorded double digit growth, with Vic. leading overall, now almost double what it was in the same month 2019. See charts 4,6,9-14, and table 3 for more detail.
- **Sales in both regional and metro areas recorded growth in July, with the latter much faster in the month. Metro and regional Victoria particularly strong.** The contraction for Tasmania was driven by metro areas, with regional areas growing in the month. In year-on-year terms, metro Victoria recorded the highest growth, almost double what online sales were for the same month 2019. See Charts 15 and 16 for more detail.
- **Monthly growth was recorded for both domestic and international merchants, with domestic online retailers outpacing international.** The only category where this was not the case was homewares and appliances, where the merchants grew at the same pace. See charts 13 and 14, and table 4 for category growth and share.
- **We estimate that in the 12 months to July, Australians spent $37.4 billion on online retail,** a level that is around 11.1% of the total retail trade estimate (Preliminary July 2020, Series 8501, Australian Bureau of Statistics), and about 28.6% higher than the 12 months to July 2019.
- See comments from NAB's Chief Economist, Alan Oster, on page 2.

Year-on-year growth (% s.a.)	May-20	Jun-20	Jul-20
NAB Online Index	51.3	51.4	62.6
ABS Traditional Retail	5.8	8.5	12.2*p

Month-on-month growth (% s.a.)	May-20	Jun-20	Jul-20
NAB Online Index	-0.6	0.5	6.7
ABS Traditional Retail	16.9	2.7	3.3*p

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

*p – Preliminary release from the ABS. These data are incorporated into charts 1&2 as **preliminary** figures.

Chart 1: Online retail sales and ABS retail sales

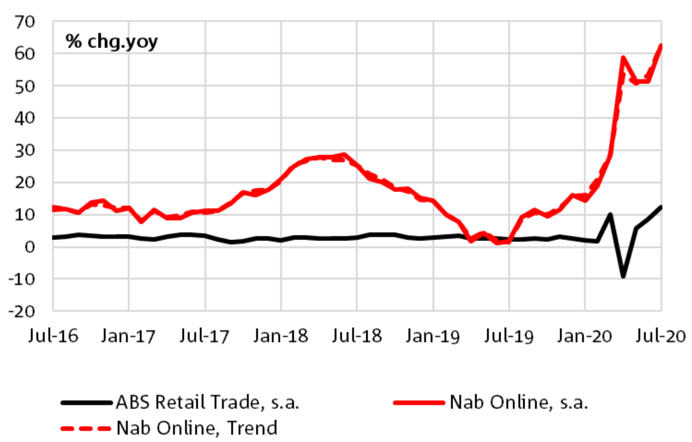
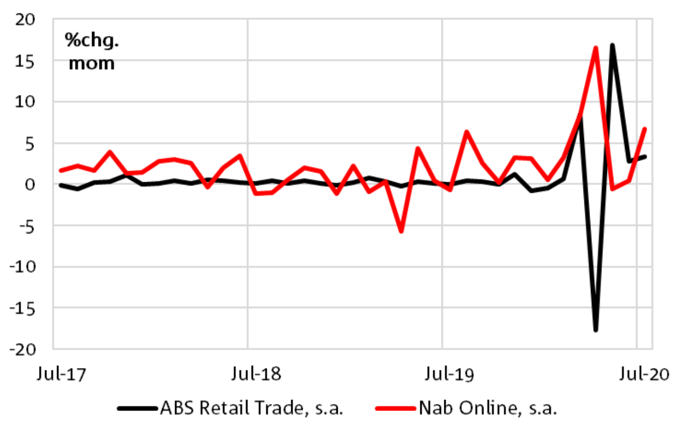


Chart 2: NAB Online retail trade data (mom, s.a.)



NAB Chief Economist, Alan Oster commented:

Our NAB Online Retail Sales Index jumped in July, with strong monthly growth in Victoria contributing heavily to the result. While this data is prior to the stage 4 restrictions in metropolitan Melbourne and Mitchell shire, stage three was clearly impacting the July result. Below, in the heatmap section, we take a look at the change over the past year.

Games and toys, fashion, and takeaway food all recorded double digit growth in the month. Combined, these categories represent about a quarter of all online sales. These three categories have also been the most volatile over the past year, with periods of strong contraction in sales typically followed by a rapid rebound. Homewares and appliances, the largest sales category in the index, which also represents about a quarter of sales, grew at a more moderate pace. In year-on-year terms, however, this category is currently the 4th fastest and has contributed strongly to the headline result.

The three most populous states represent just over 80% of all online sales, slightly above their share of the population. Of these three states, Victoria recorded the strongest growth in the month, well above growth in the other states. In year-on-year terms, online sales in Victoria are nearly double what they were in the same month 2019. The state also led growth in each category in the month. The strong result for Victoria was, like the national result, driven by games and toys, and fashion. Unlike the national result, larger sales category, department stores, was in third place for growth, with takeaway food fourth. Victoria also recorded strong growth in homewares and appliances, with SA and NT the only others to record growth for this category.

Both metro and regional areas grew in the month. In year-on-year terms, Vic. leads in both metro and regional sales growth, with metro (+97.9%) almost double what it was in July 2019. In the month, the contraction in Tas. was driven by metro areas, with regional areas continuing to grow.

In terms of merchant location, sales for domestic merchants accelerated from mild growth in the month prior, while sales growth returned to international merchants after a contraction in June. Domestic merchants have significantly outpaced international over the year.

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

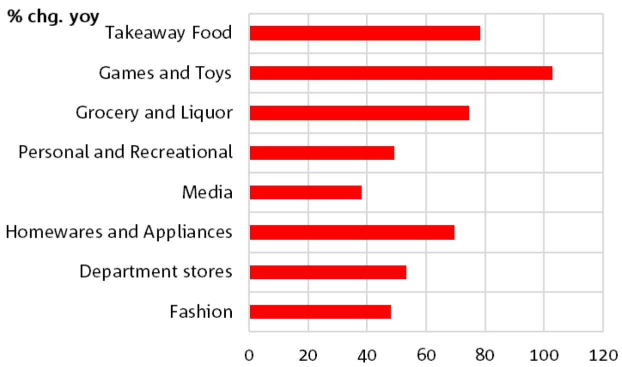


Chart 4: Online retail sales by state, yoy s.a.

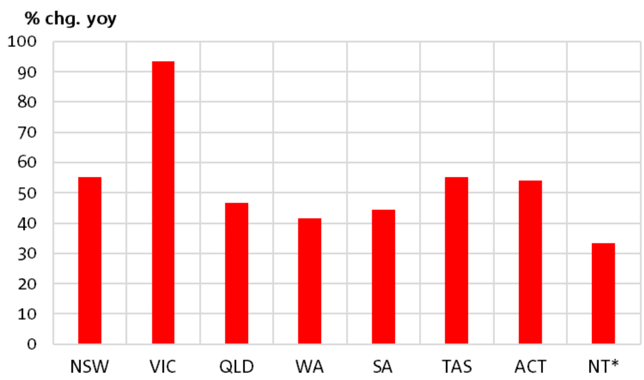


Chart 5: Online retail sales by industry, mom s.a.

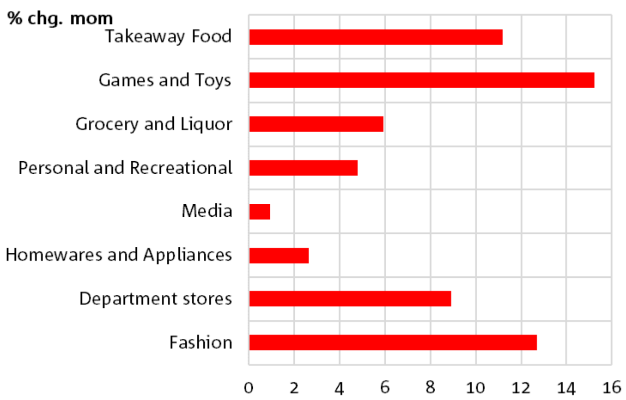
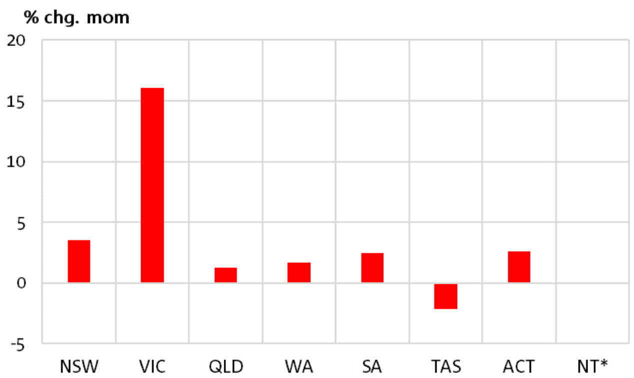
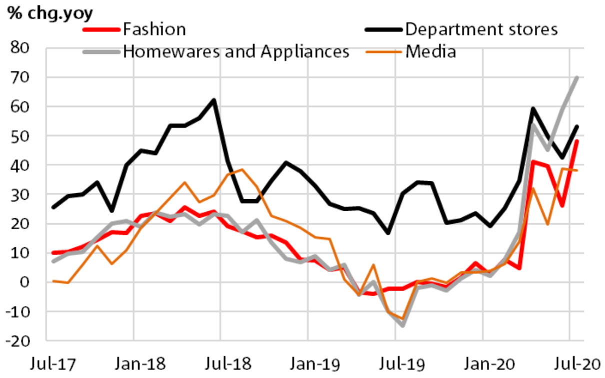


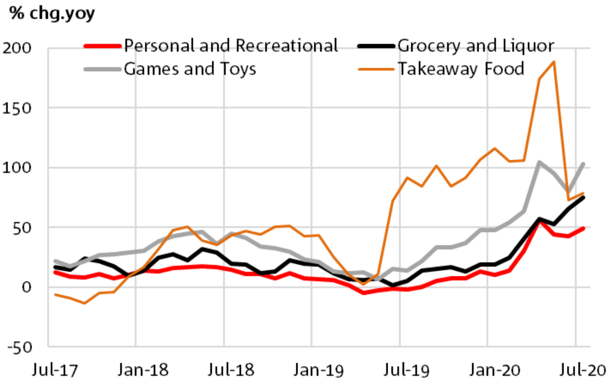
Chart 6: Online retail sales by state, mom s.a.



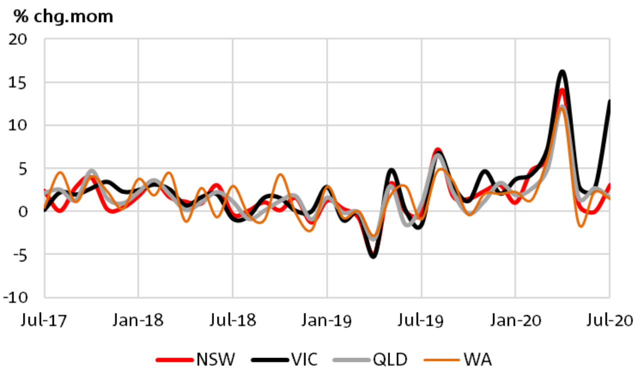
* Note that the series representing Northern Territory is highly variable and should be used with caution.

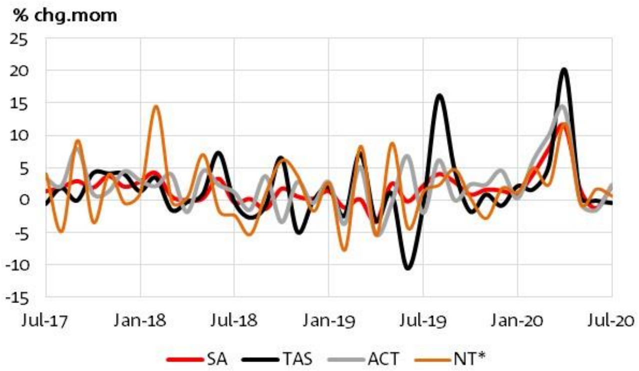
Charts 7 & 8: Online sales by category, seasonally adjusted





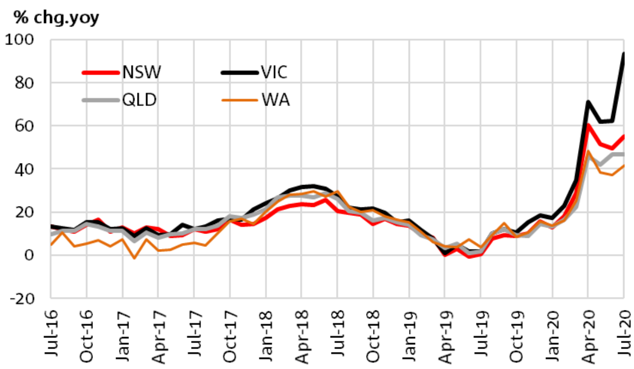
Charts 9 & 10: Online sales by state, trend

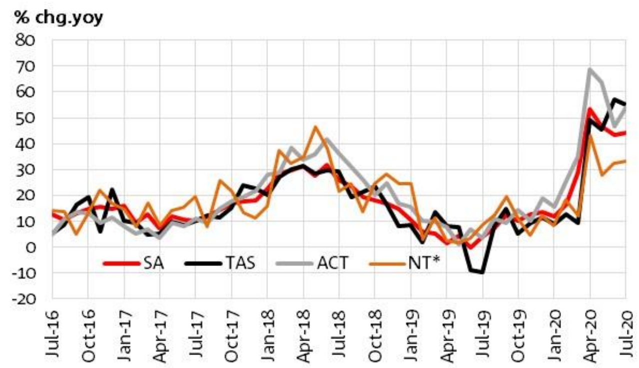




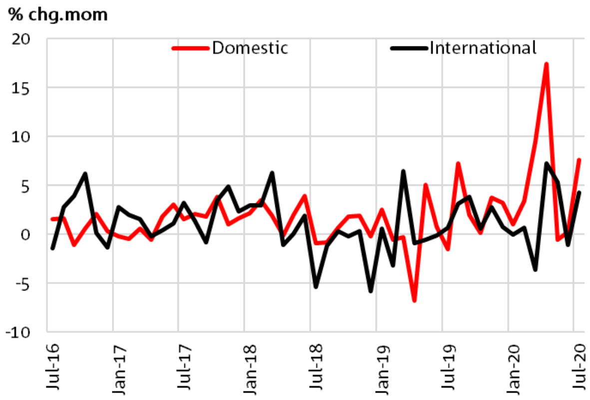
*Note that the series representing Northern Territory is highly variable and should be used with caution.

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





Charts 13 & 14: Online sales by merchant location



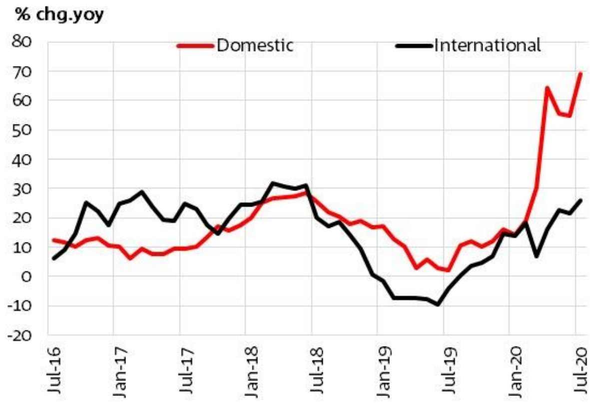


Table 3: Online sales by category and state

% (mom,s.a.)	Fashion	Dep't stores	Home & appliances	Media	Personal and Rec.	Grocery and Liquor	Games and Toys	T'away Food	Total
ACT	12.4	-0.5	-7.5	0.7	6.5	7.4	16.9	7.3	**2.6**
NSW	9.1	5.0	-0.6	-1.8	1.5	3.8	11.0	9.2	**3.5**
NT	-9.1	1.7	1.5	-10.6	-0.8	6.0	8.3	4.1	**0.0**
QLD	4.3	0.7	-0.7	-0.5	0.5	-0.5	6.9	9.5	**1.3**
SA	3.8	3.7	1.1	-0.7	0.7	1.2	7.7	8.1	**2.5**
TAS	3.8	-5.4	-6.5	-3.5	-4.0	2.7	8.9	-2.5	**-2.2**
VIC	23.2	21.5	11.1	5.7	12.1	15.8	27.1	16.6	**16.0**
WA	9.3	3.0	-3.1	-1.2	2.7	-1.7	11.7	4.0	**1.7**
Total	**12.7**	**8.9**	**2.6**	**0.9**	**4.8**	**5.9**	**15.2**	**11.2**	**6.7**

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	15.1	8.3	61.1	14.3	81.2	18.8	11.2
Department stores	9.9	8.3	59.0	19.7	89.6	10.4	14.4
Homewares and appliances	3.1	3.1	73.6	31.5	95.7	4.3	24.8
Media	2.1	-3.6	42.9	7.5	90.8	9.2	7.3
Personal and Recreational	5.9	0.7	55.7	17.8	88.1	11.9	14.2
Grocery and Liquor	7.1	1.7	80.2	6.0	96.1	3.9	15.2
Games and Toys	17.1	4.4	116.6	71.9	74.9	25.1	8.1
Takeaway Food	12.4	-6.4	81.4	-51.9	98.8	1.2	4.9
All categories	**6.9**	**4.2**	**67.8**	**25.3**	**90.3**	**9.7**	**100**

METROPOLITAN AND REGIONAL SPEND

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

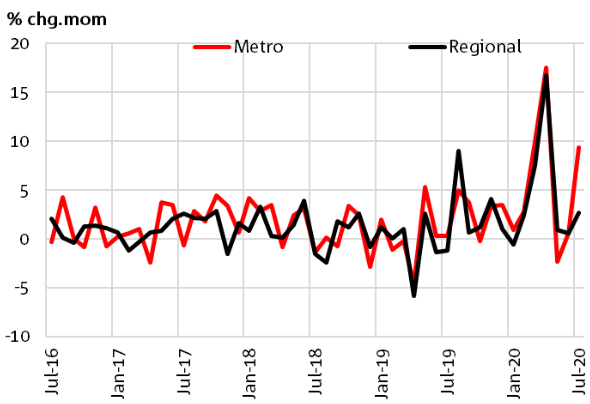
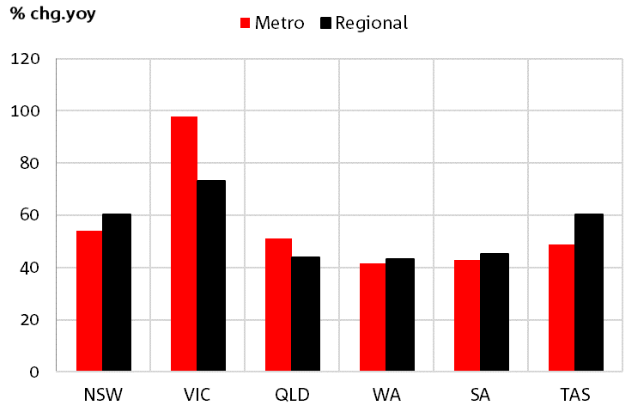


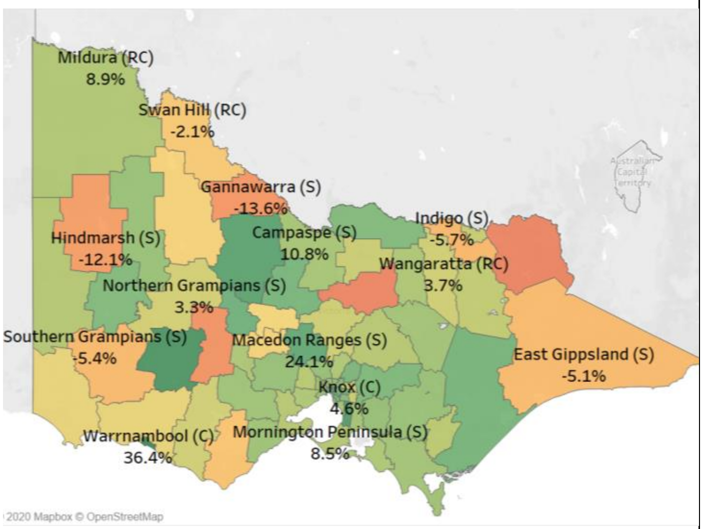
Chart 16: Online retail sales growth by state region, yoy s.a.

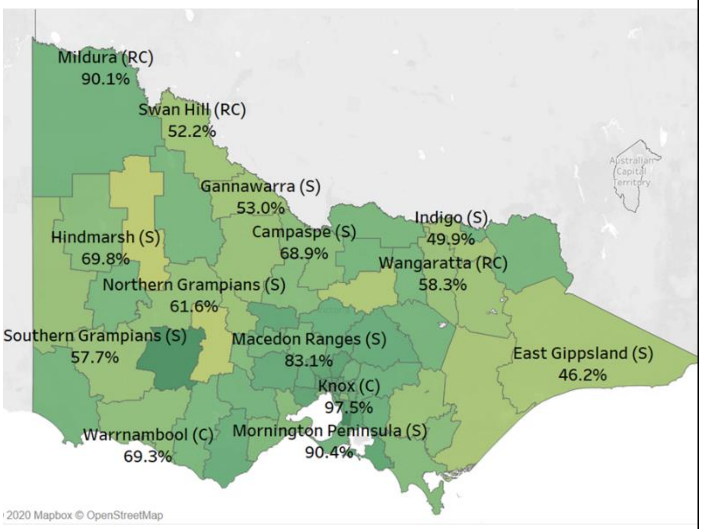


A HEATMAP VIEW OF SPEND GROWTH – YEAR ON YEAR – VICTORIA - BY LOCAL GOVERNMENT AREA

This month we look at the change in online spend growth by LGA spend growth comparing the period where the first recorded case arrived in Australia, to the current month. Growth is broad-based, with some areas whose online sales growth was contracting in January, now strongly positive and outpacing surrounding areas. There is currently only one LGA of metropolitan Melbourne that recorded growth below 70% in July 2020 compared to the same period 2019. While not shown on the map, the average transaction size for Victorians has also increased. In January, each transaction averaged out to about $68, whereas in July this was $75. This can partly be explained by the categories experiencing growth. Categories like Homewares and appliances typically have a higher average transaction spend. In the whole state there were only 8 of 80 LGAs where spend growth in year on year terms was less than 50% for this category in July.

January 2020 - YoY	July 2020 - YoY





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. 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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