



# NAB ONLINE RETAIL SALES INDEX MARCH 2020

NAB Group Economics

- The NAB Online Retail Sales Index continued its rapid growth in March (5.6%), on a month-on-month, seasonally adjusted basis. This represents an acceleration on upwardly revised growth in February (2.2% mom, s.a.).
- In year-on-year terms, the growth in the NAB Online Retail Sales Index accelerated (+21.8% y/y s.a.) in March, and it continues to outpace the broader ABS retail sales series in year on year terms.
- Six of the eight categories recorded sales growth in month-on-month growth terms. Department Stores, a category with both conventional brands and market place aggregators, and third largest sales category, recorded the highest growth in month-on-month terms in March. The largest spend share category, homewares and appliances, also grew, at a pace slightly faster than the broader index in the month. While takeaway food is still up strongly over the year, this category, and fashion, contracted in the month. For more detail, see Charts 3, 5, 7 & 8 below.
- In month-on-month terms, all states and territories recorded online sales growth. ACT recorded the strongest growth rate in online retail sales in March, with NSW leading the major sales states. In year-on-year terms, all states except TAS and NT recorded double digit growth, with Vic. leading the large states.
- Sales growth in metro areas was considerably stronger relative to regional areas in both month-on-month and year-on-year terms. In year-on-year terms, Vic. metro recorded the strongest growth for metro areas, while SA was fastest for regional growth. See Charts 15 and 16 for more detail.
- Growth in the month was driven by domestic online retailers, with sales at international merchants collapsing. By category, large spend shares homewares and appliances and department stores performed strongly for domestic retailers. The fashion category, which represents a larger share of international merchant sales, grew for domestic, but collapsed for international. See charts 13 and 14, and table 3 for category growth and share.
- We estimate that in the 12 months to March, Australians spent \$31.91 billion on online retail, a level that is around 9.7% of the total retail trade estimate (February 2019, Series 8501, Australian Bureau of Statistics), and about 11.9% higher than the 12 months to March 2019.
- See comments from NAB's Chief Economist, Alan Oster, on page 2.

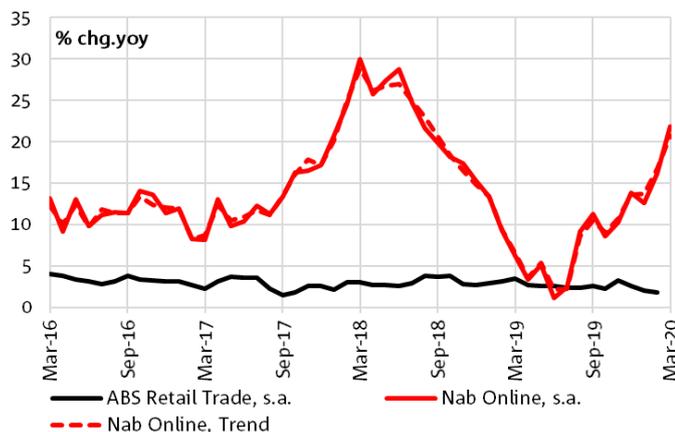
	Year-on-year growth (% s.a.)		
	Jan-20	Feb-20	Mar-20
NAB Online Index	12.6	16.1	21.8
ABS Traditional Retail	2.0	1.8	9.9*p

	Month-on-month growth (% s.a.)		
	Jan-20	Feb-20	Mar-20
NAB Online Index	0.1	2.2	5.6
ABS Traditional Retail	-0.3	0.5	8.2*p

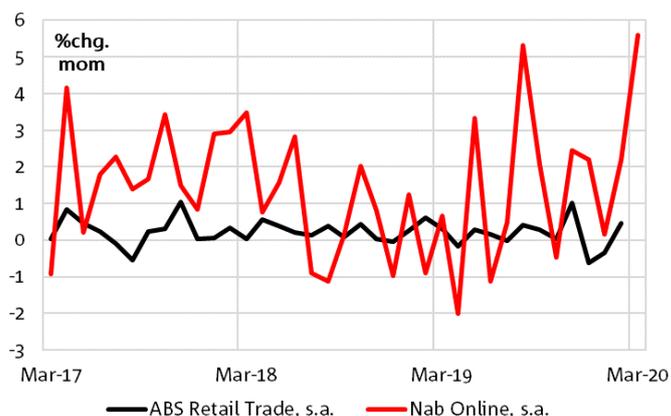
Sources: NAB, Australian Bureau of Statistics (ABS). \*Data seasonally adjusted (s.a.) using TRAMO/SEATS (incl. trading-day & Easter adjustment.)

\*p – Preliminary February release from the ABS. These data are not incorporated into charts 1&2 as they are 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 data indicates that the rebound in online spend continued in March, with a large jump in sales. Although online retail still represents an estimated 9.7% of all retail, this share has grown in the past couple of months and indicates that, while broad retail sales have slowed, those consumers still spending are doing so with an increased online focus.

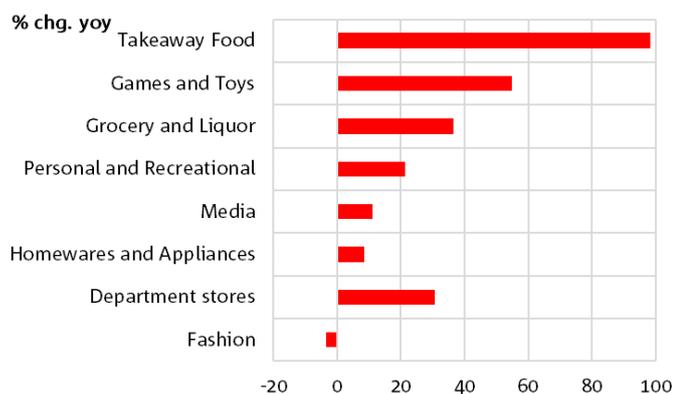
In the month, growth was strongest for the market place aggregators, with double digit growth in department store sales. Grocery and liquor, which had been growing strongly prior to the pandemic, has continued a pace, along with categories that might be boosted by self-isolation, such as games and toys, and personal and recreational goods. Potentially people have been using this time to replace existing homewares and appliances, with sales for the category, which had been relatively subdued, now growing slightly faster than the overall index. On the flipside, both fashion and takeaway food have fallen in sales growth terms in March. Having said that, the latter category is still almost double the sales of a year prior. With respect to COVID-19, evidence from overseas online sales monitors suggest that the fall in fashion sales is widespread, with the Australian market performing better than some comparable online retail markets.

The three most populous states represent just over 80% of all online sales, slightly above their share of the population. Of these three states, online sales growth in NSW grew most rapidly, with department stores a key driver. ACT currently leads in both monthly and year-on-year growth terms, but represents a small share of online spend. The key driver across most states in year-on-year terms has been the strong performance of grocery and liquor, particularly so in Vic and SA.

Representing about two-thirds of all online sales, metropolitan areas generally performed more strongly than the overall result. Over the year, Tas. regional was the only area to show a contraction in online sales.

In terms of merchant location, in March, sales at international merchants collapsed. This was particularly noticeable in their key sales category, fashion, while domestic merchant sales growth for this category was positive. Domestic merchants, which make up the vast bulk of sales grew strongly in the month. In sales categories where international merchants have a sizeable presence, such as games and toys, they were outpaced by domestic merchants. It is likely with these results that concern over stock availability and delivery was elevated in March, and contributed to this spending behaviour.

**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.

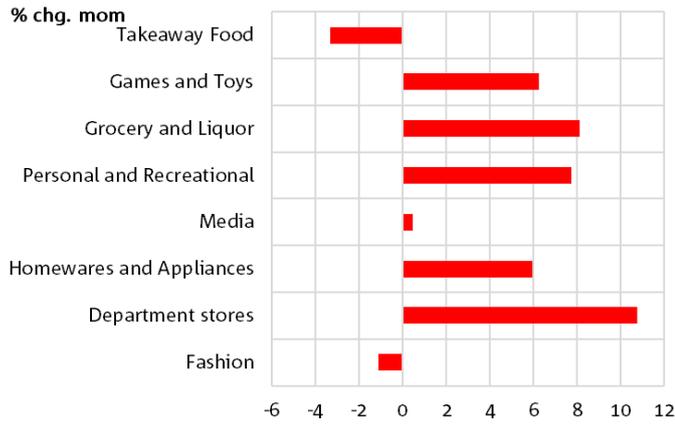
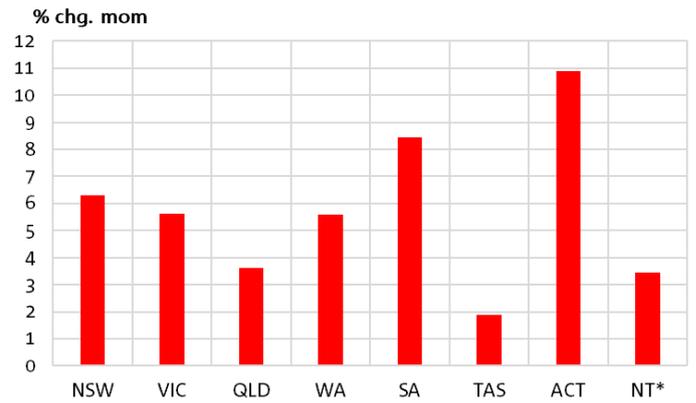
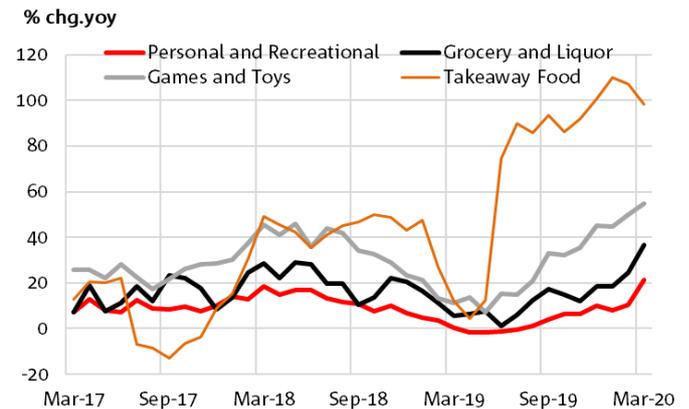
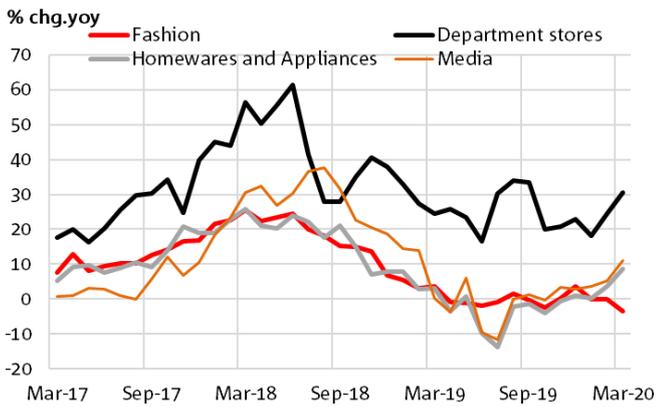


Chart 6: Online retail sales by state, mom s.a.

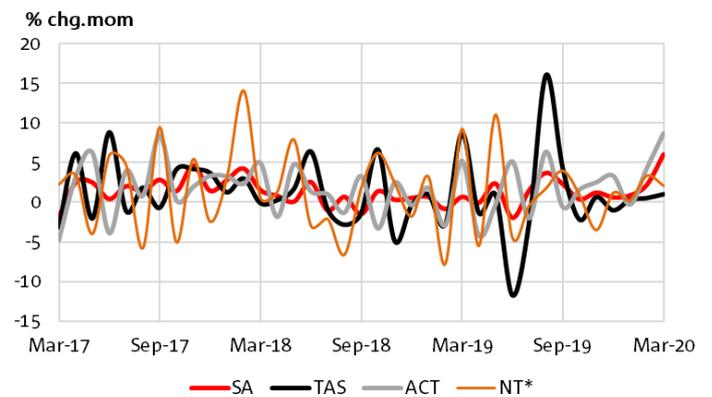
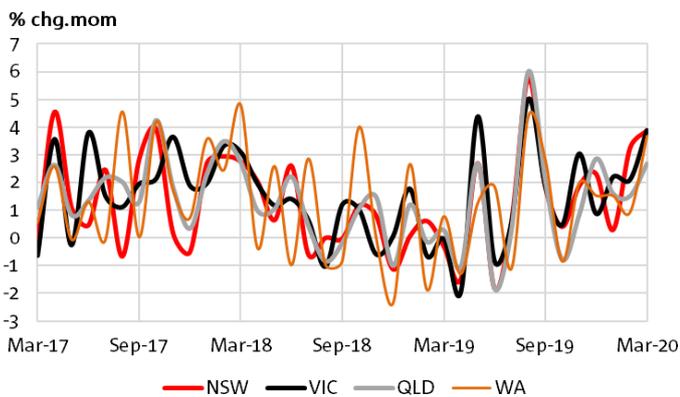


\* Note that the series representing Northern Territory is highly variable and should be used with caution.

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

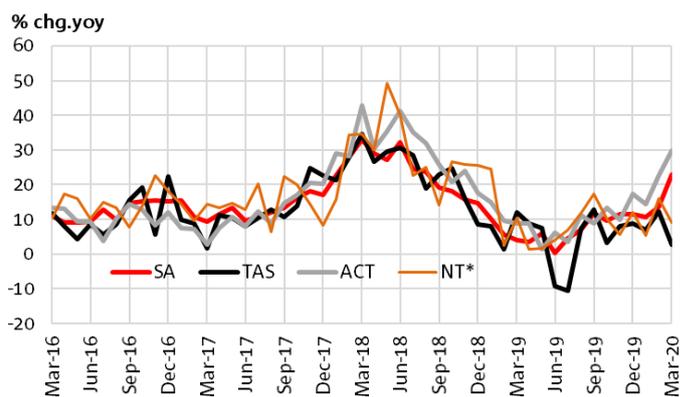
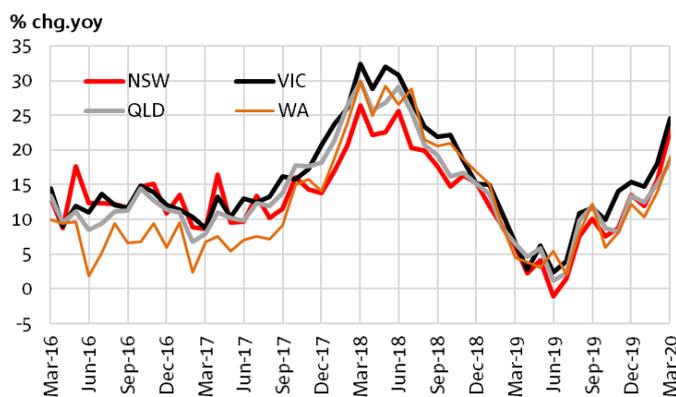


Charts 9 & 10: Online sales by state, trend



\*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

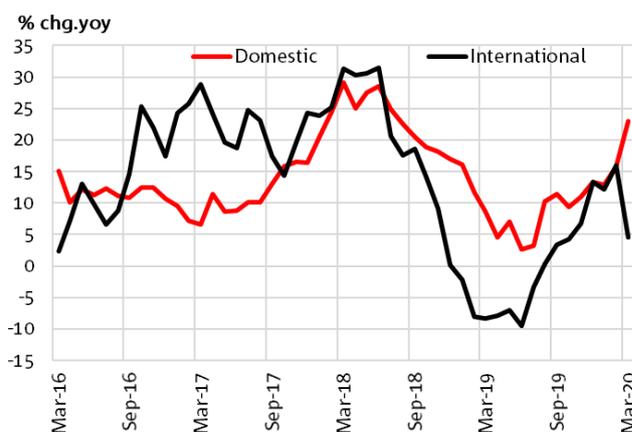
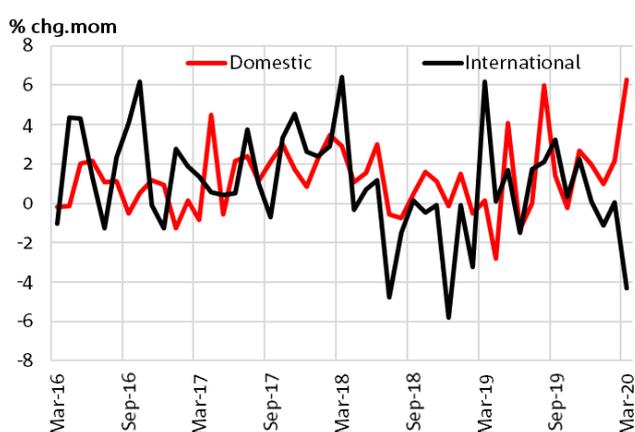


Table 3: Online sales by category and merchant location- Domestic, International (Int'l)

%	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	1.1	-12.8	4.3	-29.0	79.0	21.0	11.6
Department stores	12.9	-4.7	35.2	-0.0	88.2	11.8	14.5
Homewares and appliances	6.4	-1.1	8.6	15.8	95.4	4.6	24.6
Media	0.1	-5.8	11.2	3.5	90.3	9.7	7.8
Personal and Recreational	5.6	-5.6	22.4	0.9	87.0	13.0	14.4
Grocery and Liquor	9.8	6.7	35.0	23.7	95.3	4.7	15.0
Games and Toys	5.4	1.2	46.6	61.2	73.8	26.2	7.5
Takeaway Food	-1.5	-15.9	95.3	15.0	98.2	1.8	4.4
All categories	6.3	-4.3	22.9	4.6	89.3	10.7	100

## METROPOLITAN AND REGIONAL SPEND

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

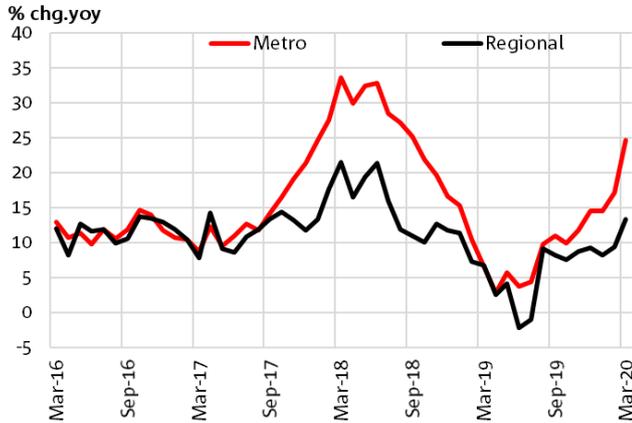
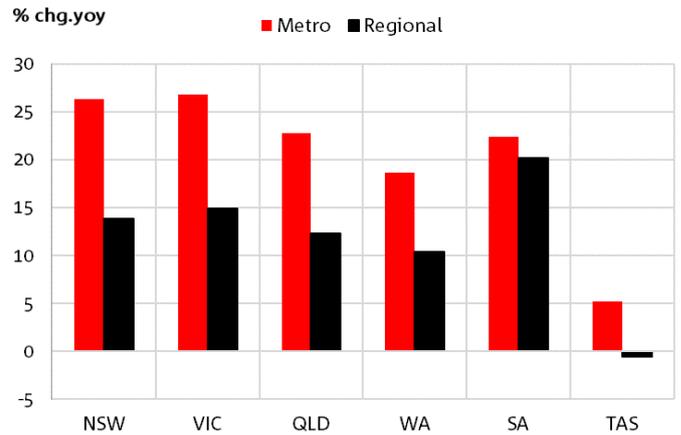
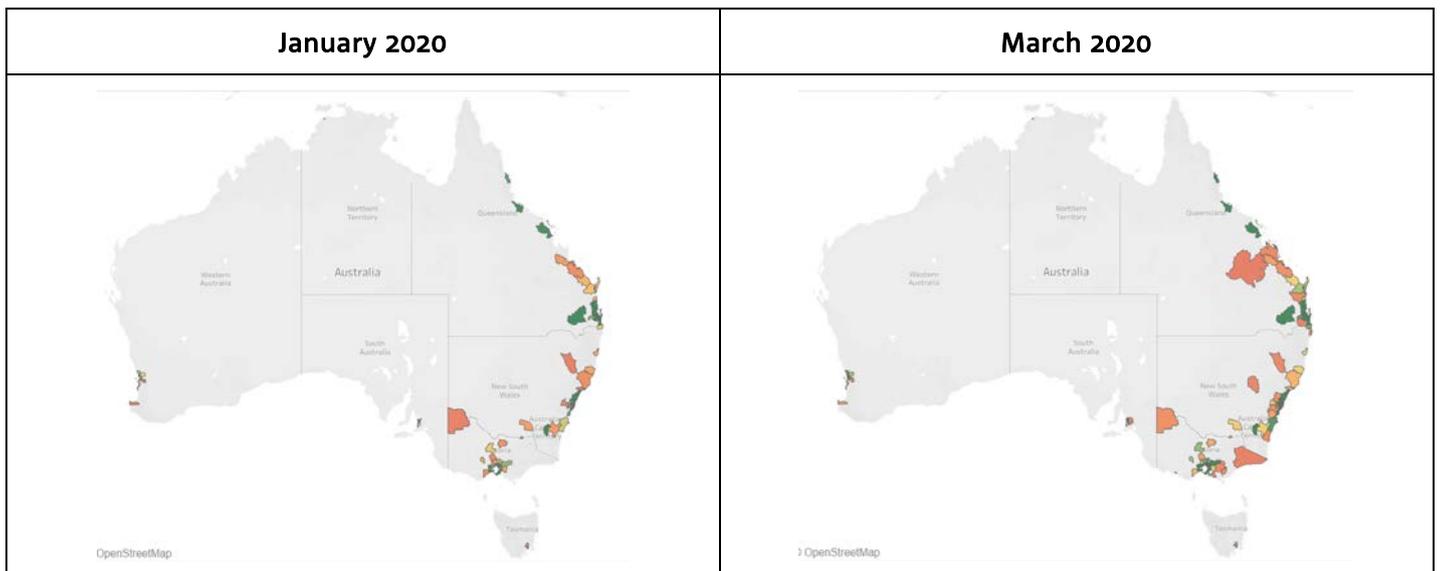


Chart 16: Online retail sales growth by state region, yoy s.a.



## A HEATMAP VIEW OF THE NUMBER OF TRANSACTIONS – GROCERY AND LIQUOR - BY LOCAL GOVERNMENT AREA

This month we thought we'd offer a simple example of the change in the number of online transactions, and how it can vary depending on where people live. The map below shows key areas for online Grocery and Liquor purchases by transaction volume, with red areas lower volume and green areas higher volume. In January, the key areas for this category were for the most part in metropolitan areas, but by March, key volume areas were spreading, and the map has begun to fill in a little more with colour, particularly along the Eastern seaboard and Adelaide, albeit with a long way to go in many 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. 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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