



# NAB ONLINE RETAIL SALES INDEX SEPTEMBER 2020

NAB Group Economics

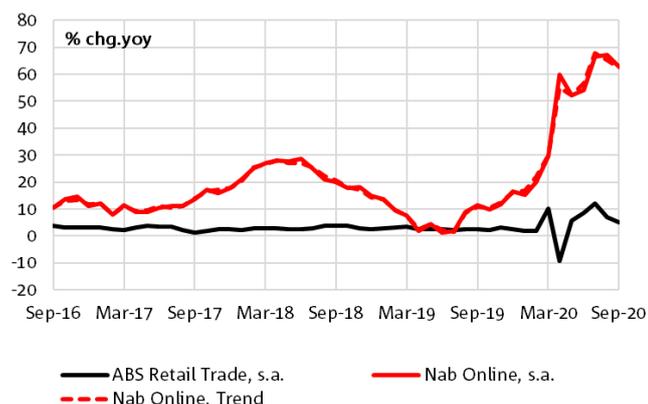
- The NAB Online Retail Sales Index slowed in September (0.9%), from stronger growth in August (revised to 5.9%), on a month-on-month, seasonally adjusted basis.
- In year-on-year terms, the growth in the NAB Online Retail Sales Index, while slowing, (62.7% y/y) is amongst the strongest growth recorded in the series history.
- Results by category were mixed in month-on-month growth terms. Growth was led by small sales category, takeaway food, and larger sales category, department stores. Media, which had been relatively weak in the past few months, was fourth fastest. The largest sales category, homewares and appliances, contracted in the month, but is still up 60% compared to September 2019. Second largest category, grocery and liquor, was virtually flat in the month, but is fourth fastest over the year. For more detail, see Charts 3, 5, 7 & 8 and table 3 below.
- In month-on-month terms, WA rebounded after last months contraction, to lead growth by state. ACT, Vic., NT, and Qld. also recorded growth, with the latter far more moderate. NSW, SA, and Tas. recorded a contraction in the month. While all states are up on the same period 2019, Vic. has a clear lead. In year-on-year terms, online sales for Vic. are more than double what they were in September 2019. See charts 4,6,9-14, and table 3 for more detail.
- Sales in both metro and regional areas slowed in the month, with the latter contracting, especially in Vic. The result this month was mixed across states, with online sales in regional Qld. growing faster than metro, and regional and metro WA on par. In year-on-year terms, metro Victoria recorded the highest growth, over 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 slightly outpacing international. The domestic result was driven by strong results in takeaway food, and a flat result for clothing, both of which contracted for international, although department stores sales growth for international was faster. See charts 13 and 14, and table 4 for category growth and share.
- We estimate that in the 12 months to September, Australians spent \$40.9 billion on online retail, a level that is around 12.0% of the total retail trade estimate (Preliminary Sep 2020, Series 8501, Australian Bureau of Statistics), and about 38.7% higher than the 12 months to September 2019.
- See comments from NAB's Chief Economist, Alan Oster, on page 2.

	Year-on-year growth (% s.a.)		
	Jul-20	Aug-20	Sep-20
NAB Online Index	66.5	67.2	62.7
ABS Traditional Retail	12.0	7.1	5.2*p

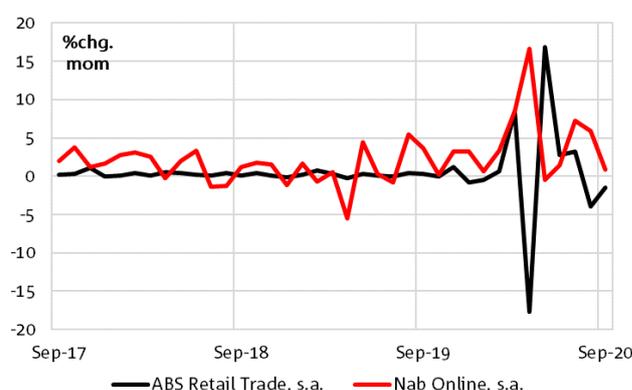
	Month-on-month growth (% s.a.)		
	Jul-20	Aug-20	Sep-20
NAB Online Index	7.2	5.9	0.9
ABS Traditional Retail	3.2	-4.0	-1.5*p

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 continued to grow, albeit slowing in September. While metro Victoria contributed to growth in the month, regional areas, possibly with loosening lockdown measures, detracted from growth. Below, in the heatmap section, we take a look at the change in the Media category, which has accelerated after weakness in 2019.

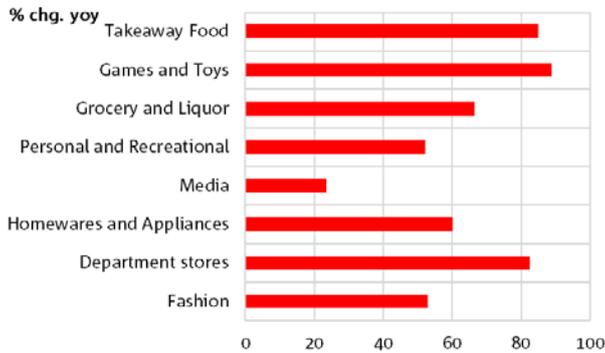
Takeaway food led growth in the month, and was particularly strong in TAS and VIC, with double digit growth in those states. For larger sales category, department stores, along with media, sales growth was particularly strong for international merchants. All other categories were either on par with, or slower than domestic merchants in the month. After strong growth in recent months, growth for homewares and appliances contracted in September, driven by a drop in most states except WA, ACT and VIC. Grocery and liquor (-0.1% mom, s.a.) recorded a slight contraction, after 14 months of continuous growth, although the state results for this category are far more mixed. Growth for this category in NSW, NT, QLD and WA was offset by a contraction in ACT, SA, TAS, and VIC.

WA led growth in the month, rebounding from a contraction in online sales in August. The three most populous states represent just over 80% of all online sales, slightly above their share of the population. Of these three states, VIC recorded the strongest growth in the month, while NSW contracted, and QLD recorded growth slightly below the national average. VIC was amongst the fastest for growth in the large spend share categories. In year-on-year terms, online sales in Victoria are more than double what they were in the same month 2019. This is well beyond any Christmas period trading that we have observed for VIC online retail in both growth, and absolute dollar, terms.

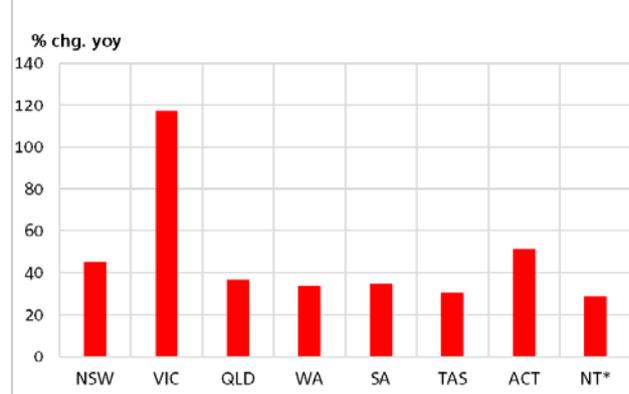
Despite slowing, metro areas continued to grow, supported by Vic and WA, while regional areas contracted in the month. The state result for QLD was boosted by regional growth, with metro areas contracting slightly. In year-on-year terms, Victoria leads in both metro and regional sales growth, with metro (+127%) more than double what it was in September 2019, and regional also up strongly (+65.6%).

In terms of merchant location, sales for domestic merchants slowed from strong growth in the month prior, while sales growth for international continued to rebound from the contraction in June. In year-on-year terms, domestic merchants have significantly outpaced international.

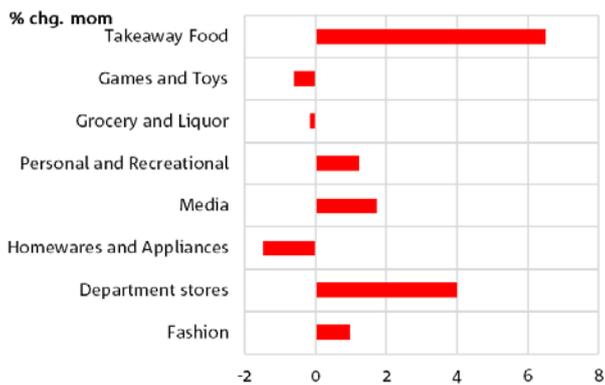
**Chart 3: Online retail sales by industry, yoy s.a.**



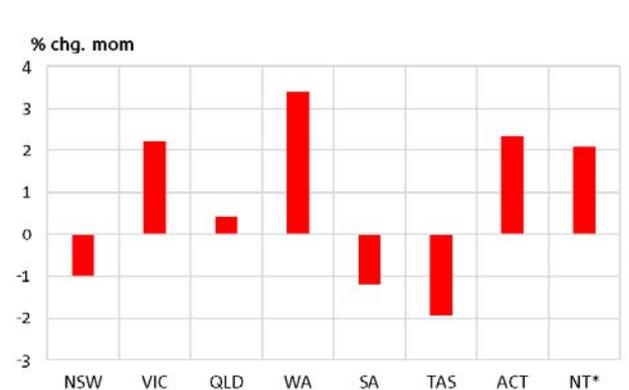
**Chart 4: Online retail sales by state, yoy s.a.**



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

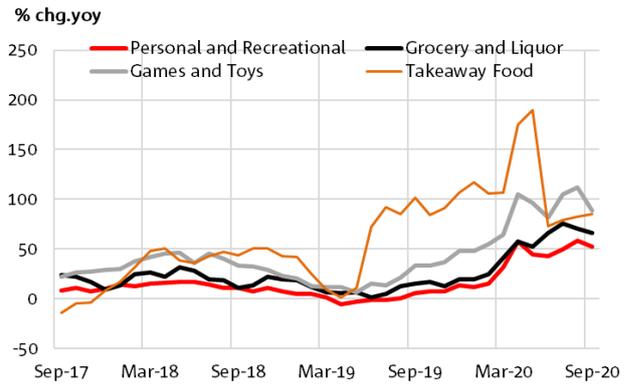
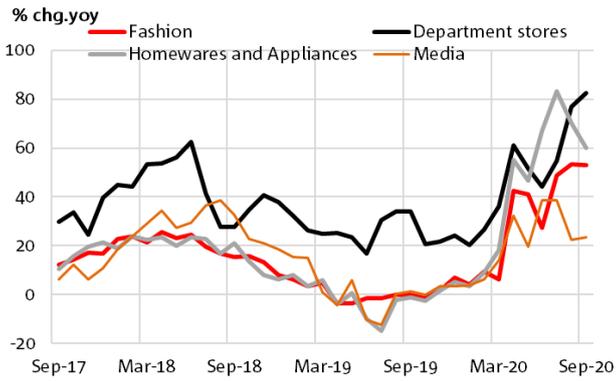


**Chart 6: Online retail sales by state, mom s.a.**

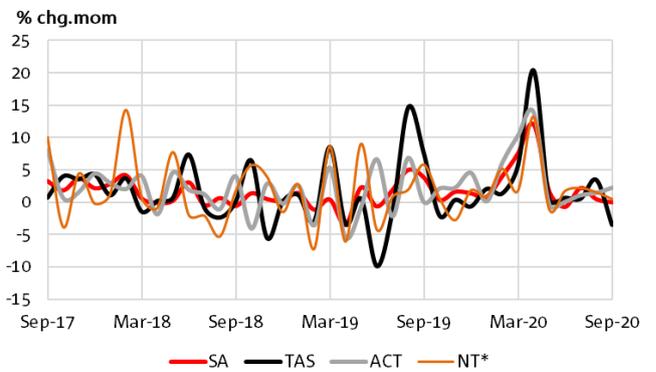
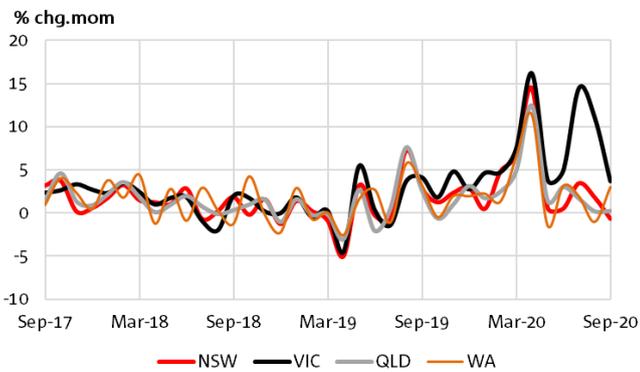


\* Note that the series representing Northern Territory is highly variable and should be used with caution.

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

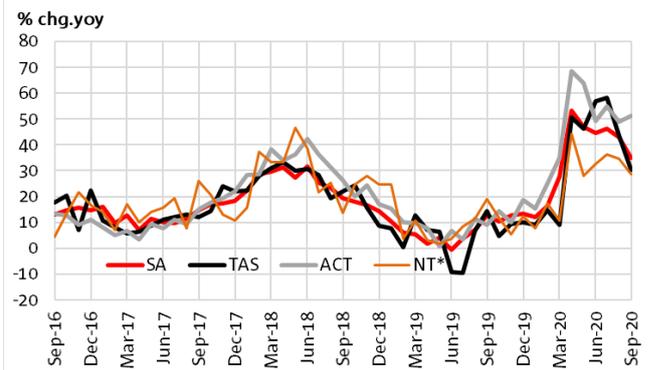
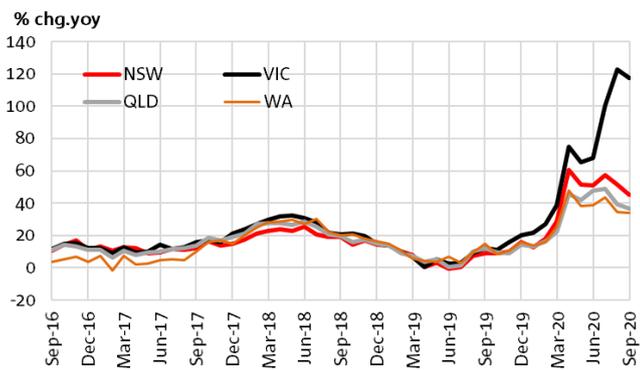


**Charts 9 & 10: Online sales by state, trend**



\*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

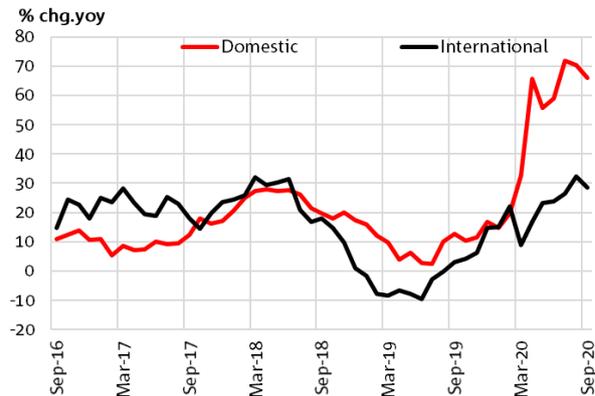
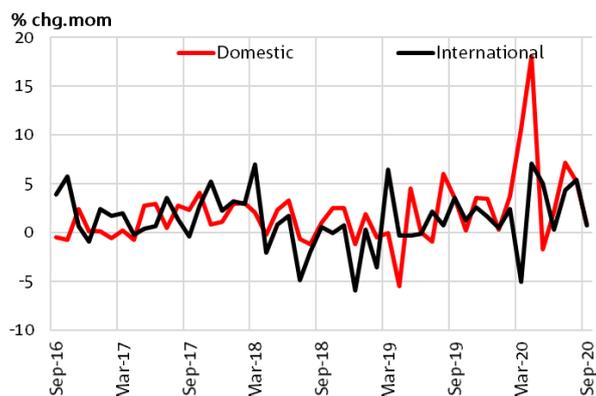


Table 3: Online sales by category and state

% (mom,s.a.)	Fashion	Dep't stores	Home & appliances	Media	Personal and Rec.	Grocery and Liquor	Games and Toys	T'away Food	Total
ACT	1.3	4.0	3.6	2.5	2.0	-1.0	2.4	3.5	2.4
NSW	-2.0	3.8	-5.3	0.9	-1.0	1.2	-2.2	1.8	-1.0
NT	-1.8	7.1	-7.1	-0.3	7.8	12.8	-0.6	3.8	2.1
QLD	-1.0	4.5	-3.6	1.4	0.8	2.1	0.7	1.8	0.4
SA	1.2	-0.4	-3.2	1.9	-4.9	-2.6	1.4	8.1	-1.2
TAS	-8.0	12.0	-11.1	5.9	4.5	-6.0	0.7	17.9	-1.9
VIC	4.2	3.8	1.6	2.0	3.4	-2.8	-1.0	12.7	2.2
WA	0.4	5.6	5.1	3.7	1.7	4.0	1.5	1.0	3.4
<b>Total</b>	<b>1.0</b>	<b>4.0</b>	<b>-1.5</b>	<b>1.7</b>	<b>1.2</b>	<b>-0.1</b>	<b>-0.6</b>	<b>6.5</b>	<b>0.9</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	0.0	-1.9	63.0	18.8	81.9	18.1	11.1
Department stores	1.9	9.6	90.7	34.5	90.2	9.8	14.6
Homewares and appliances	-1.7	-1.7	63.8	37.2	95.9	4.1	25.0
Media	1.7	7.0	23.6	17.4	90.9	9.1	6.9
Personal and Recreational	1.2	1.2	59.3	25.0	88.5	11.5	14.0
Grocery and Liquor	-0.8	-0.8	72.9	-12.0	96.5	3.5	15.2
Games and Toys	-1.8	-3.4	96.2	59.7	75.7	24.3	8.4
Takeaway Food	4.8	-7.7	87.1	-45.0	99.0	1.0	4.9
<b>All categories</b>	<b>0.8</b>	<b>0.7</b>	<b>65.9</b>	<b>28.6</b>	<b>90.7</b>	<b>9.3</b>	<b>100</b>

## METROPOLITAN AND REGIONAL SPEND

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

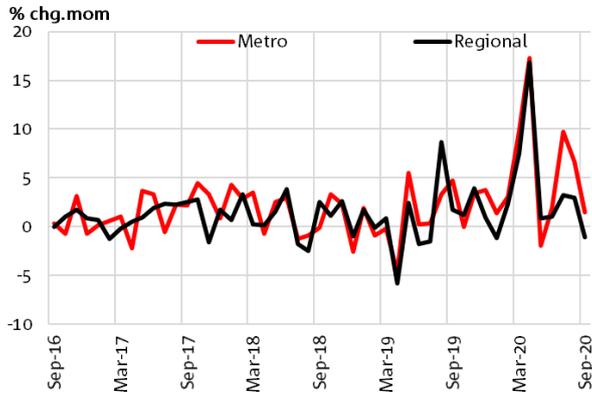
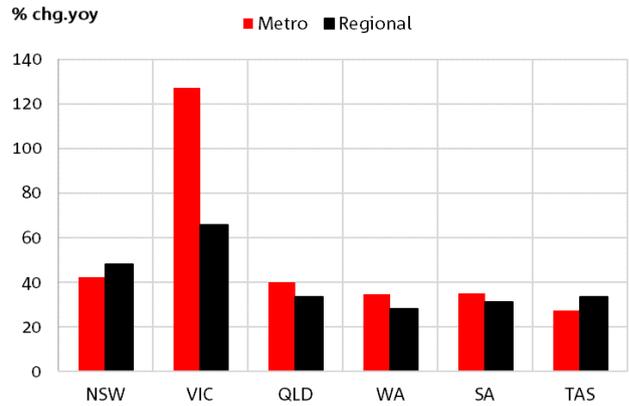
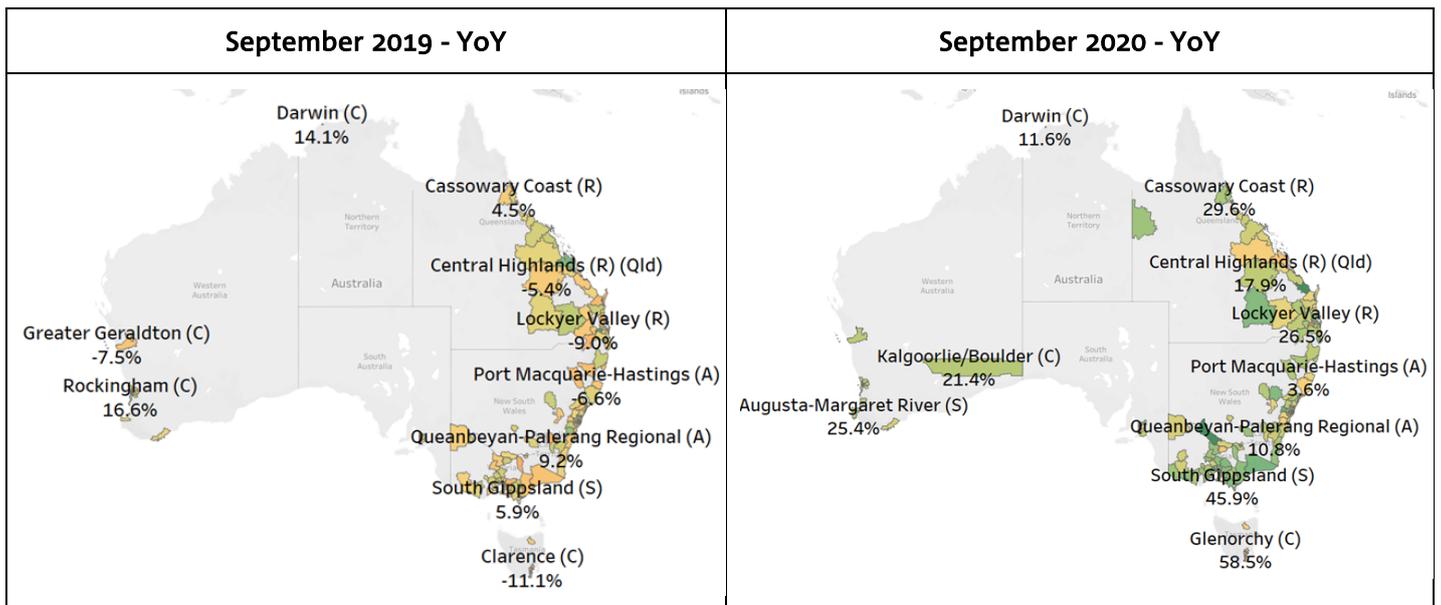


Chart 16: Online retail sales growth by state region, yoy s.a.



## A HEATMAP VIEW OF SPEND GROWTH – YEAR ON YEAR – MEDIA – BY LOCAL GOVERNMENT AREA

This month we look at the change in Media online spend by LGA, comparing September 2019 relative to the year prior, and September 2020 relative to September 2019 (i.e. year-on-year comparisons). Media is a category which covers access to online news, books, and conventional media, through to streaming services. In September 2019, growth for the index (+11.6% yoy) started to accelerate, but growth for the category was relatively slow (+1.3%). For that period, 40% of the LGAs that met the low volume cut off display criteria, recorded a contraction in growth. For September 2020, there are now more LGAs that meet the display criteria, and about 92% of those LGAs recorded growth for online media sales, with most of these seeing double digit growth. The growth for this sector seems to be driven by new transactions. While not shown on the map, the average spend-per-transaction, at around \$18.50, has not changed.



## 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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