



# NAB ONLINE RETAIL SALES INDEX APRIL 2020

NAB Group Economics

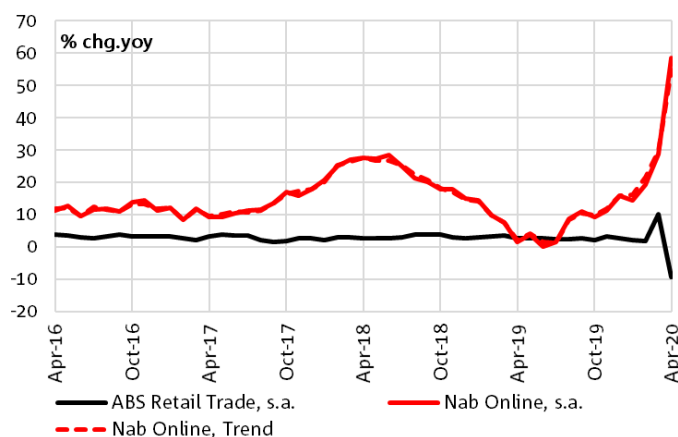
- The NAB Online Retail Sales Index rapid growth accelerated again in April (16.2%), on a month-on-month, seasonally adjusted basis. This is the highest ever recorded monthly growth rate in the series history (2012).
- In year-on-year terms, the growth in the NAB Online Retail Sales Index accelerated (+58.5% y/y s.a.) in April, the highest year-on-year growth rate comparison in the series history.
- All eight categories recorded sales growth in month-on-month growth terms. Takeaway food, and games and toys grew most rapidly, with takeaway rebounding from a contraction in March. Of the larger spend share categories, fashion led sales growth, also rebounding in April from negative sales growth in March. The other big driver of this month's result was the largest sales category, homewares and appliances, growing at a pace slightly faster than the broader index. For more detail, see Charts 3, 5, 7 & 8 below.
- In month-on-month terms, all states and territories recorded online sales growth. Tas. recorded the strongest growth rate in online retail sales in April, with Vic. and NSW leading the major sales states. In year-on-year terms, all states recorded double digit growth, with Vic. leading.
- Sales growth in regional areas was slightly stronger relative to metro areas in month-on-month terms. Regional growth was driven by the two largest sales states, Vic. and NSW. See Charts 15 and 16 for more detail.
- Growth in the month was driven by domestic online retailers. Sales at international merchants returned to growth, but at a far slower pace relative to domestic. The largest sales share for international merchants, fashion, was far outpaced by their domestic based counterparts. By category, large spend shares homewares and appliances, and department stores, performed strongly for domestic retailers. See charts 13 and 14, and table 3 for category growth and share.
- We estimate that in the 12 months to April, Australians spent \$34.27 billion on online retail, a level that is around 10.4% of the total retail trade estimate (Preliminary April 2020, Series 8501, Australian Bureau of Statistics), and about 19.5% higher than the 12 months to April 2019.
- See comments from NAB's Chief Economist, Alan Oster, on page 2.

	Year-on-year growth (% s.a.)		
	Feb-20	Mar-20	Apr-20
NAB Online Index	19.3	28.6	58.5
ABS Traditional Retail	1.8	10.1	-9.4*p

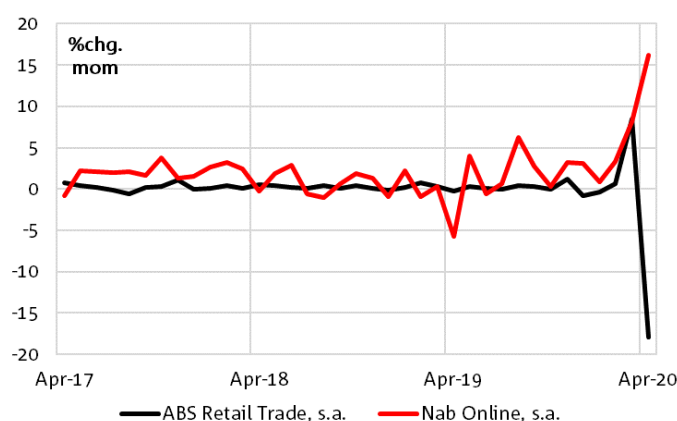
	Month-on-month growth (% s.a.)		
	Feb-20	Mar-20	Apr-20
NAB Online Index	3.3	8.1	16.2
ABS Traditional Retail	0.6	8.5	-17.9*p

Sources: NAB, Australian Bureau of Statistics (ABS). \*Data seasonally adjusted (s.a.) using TRAMO/SEATS (incl. trading-day & Easter adjustment.)  
 \*p – Preliminary April 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 data highlights the extraordinarily strong growth in sales over the past couple of months. While official preliminary estimates for all retail sales showed a marked reversal of gains in March, our online series indicates that online spend accelerated in April. These are the highest growth rates we have recorded in the history of the current series, running since 2012. Similar growth rates have been recorded in overseas comparisons. The Office of National Statistics in the UK, for example, reports that online grew at 15.8% in the month. With the rapid growth in the series, and slowing in overall ABS retail estimates, online as a proportion of total retail sales is now 10.4% of all sales, up from 9.7% a month prior.*

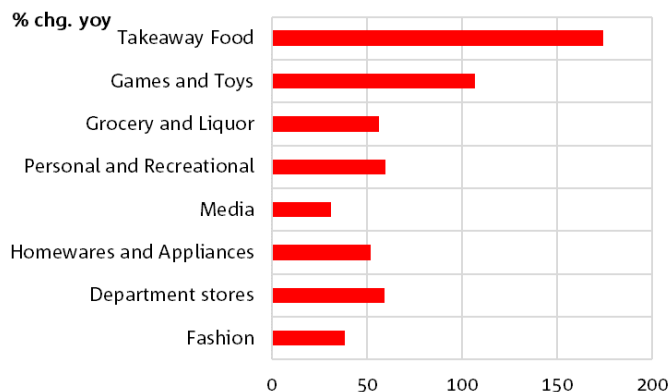
*In the month, growth was strongest for the smallest sales category, takeaway food, which returned to growth after contracting in March. Second smallest spend share category, games and toys, has grown strongly over the past couple of months, so much so that its share of online has increased from about 6% 12 months ago, to almost 8% now. It seems that online activity by category has moved somewhat in phases over the past three months, initially led by strong growth in grocery and liquor as panic buying took hold. While that category continues a pace, a focus on home improvement and working from home were clear gains in March and April. Possibly with the easing of lockdown measures and some consumers still reluctant to go to physical stores, online fashion has re-emerged as a growth area after months of below average and negative sales growth.*

*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 Vic. and NSW grew most rapidly, with smaller spend share state, Tas. leading overall growth.*

*Both metropolitan and regional areas grew rapidly in the month, with regional slightly faster driven by regional Vic and regional NSW. In all other states, the metro areas grew more strongly.*

*In terms of merchant location, in April, sales at domestic retailers considerably outpaced their international competition. Not to say the performance of international retailers was poor in April. In an ordinary month, growth recorded by international retailers would itself be viewed as strong, but in April, domestic retailers recorded exceptional, double-digit growth. In addition, fashion, a key area for international merchants, was up strongly for domestic retailers, but negative in year-on-year terms for international.*

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



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

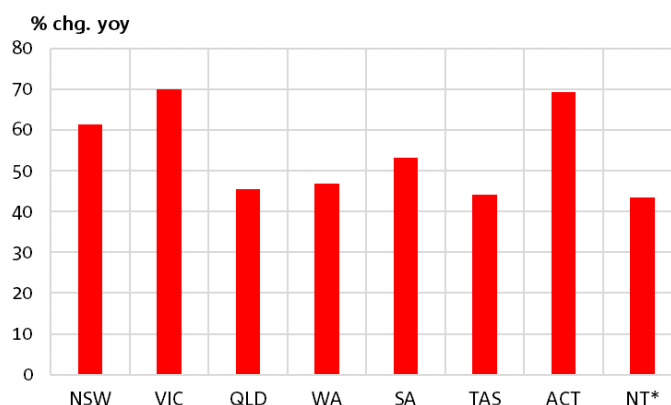


Chart 5: Online retail sales by industry, mom s.a.

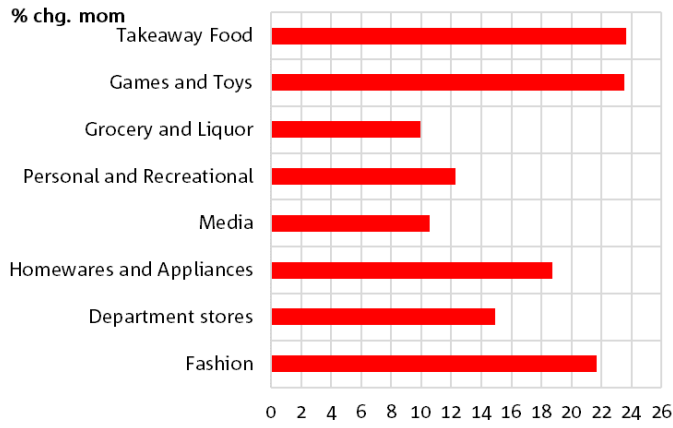
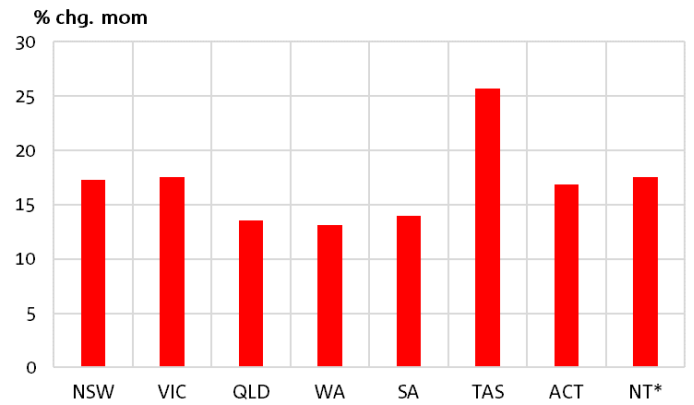
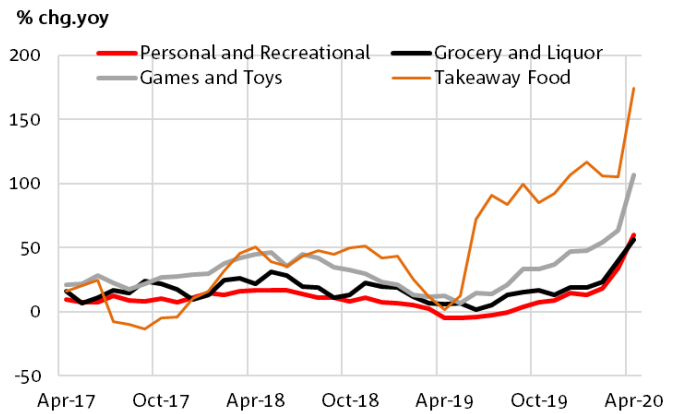
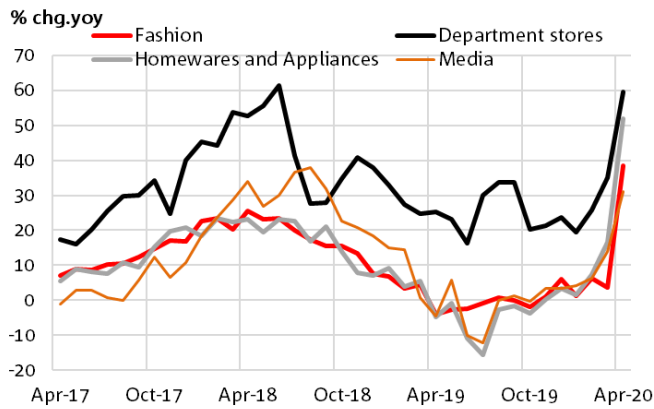


Chart 6: Online retail sales by state, mom s.a.

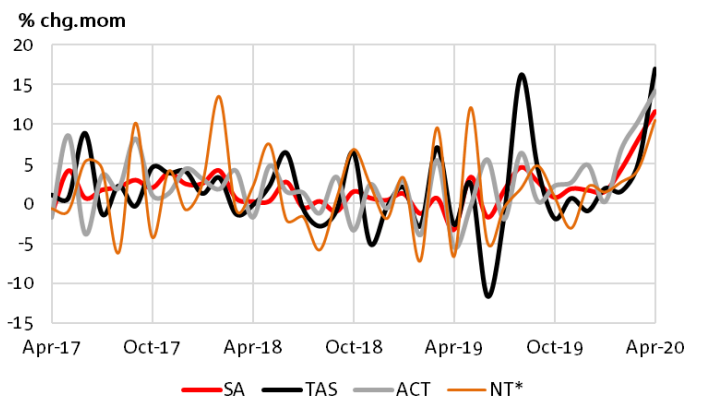
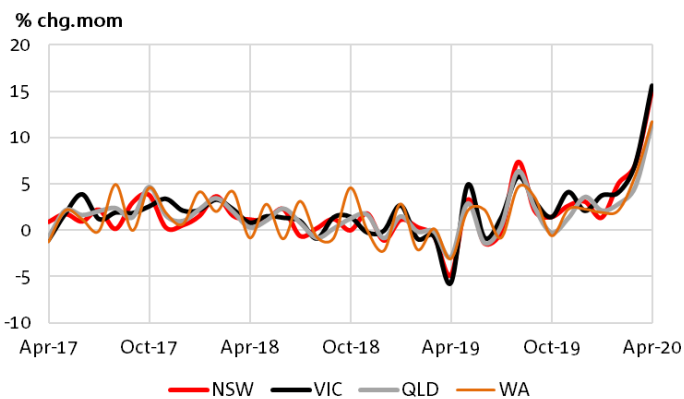


\* Note that the series representing Northern Territory is highly variable and should be used with caution.

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

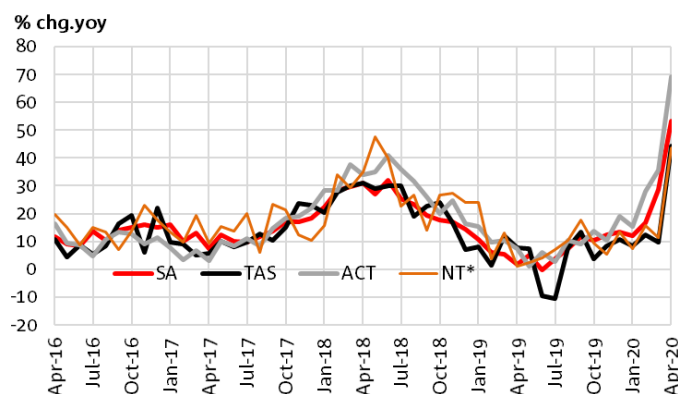
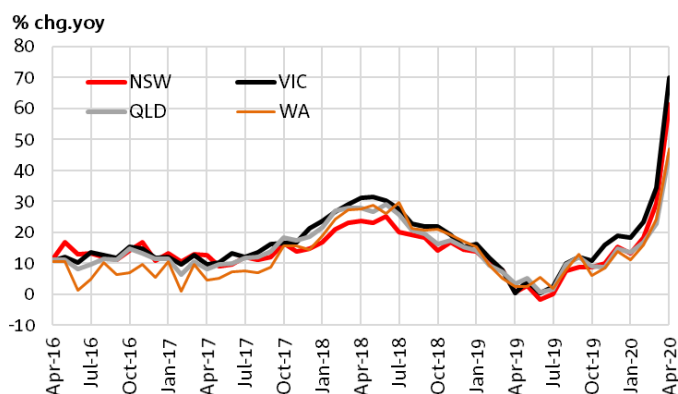


Charts 9 & 10: Online sales by state, trend



\*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

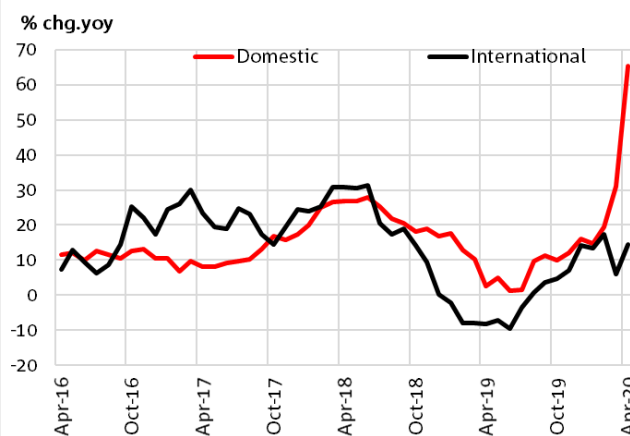
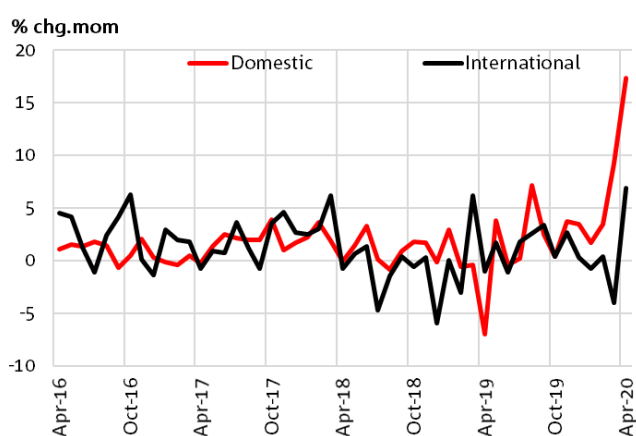


Table 3: Online sales by category and merchant location- Domestic, International (Int'l)

%	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	25.6	4.3	58.4	-18.0	80.0	20.0	11.5
Department stores	16.5	1.0	71.0	-5.8	88.8	11.2	14.5
Homewares and appliances	19.2	8.8	54.8	24.8	95.5	4.5	24.6
Media	12.1	7.0	33.3	20.1	90.4	9.6	7.6
Personal and Recreational	12.1	5.3	67.3	10.9	87.6	12.4	14.6
Grocery and Liquor	10.5	-6.7	57.7	10.4	95.5	4.5	14.9
Games and Toys	26.6	18.2	114.1	92.4	74.2	25.8	7.7
Takeaway Food	25.9	-16.7	186.3	-28.7	98.4	1.6	4.6
All categories	17.3	6.9	65.2	14.5	89.7	10.3	100

## METROPOLITAN AND REGIONAL SPEND

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

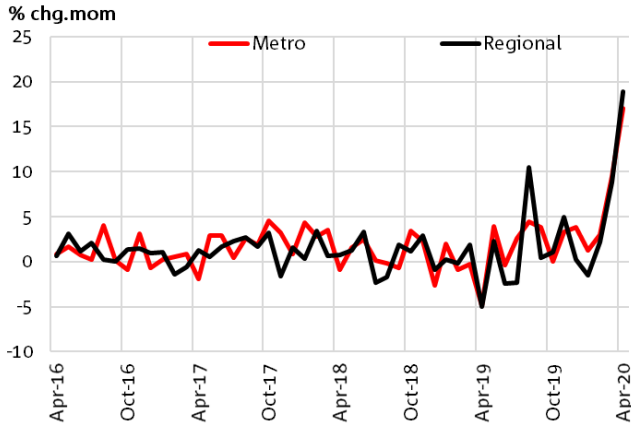
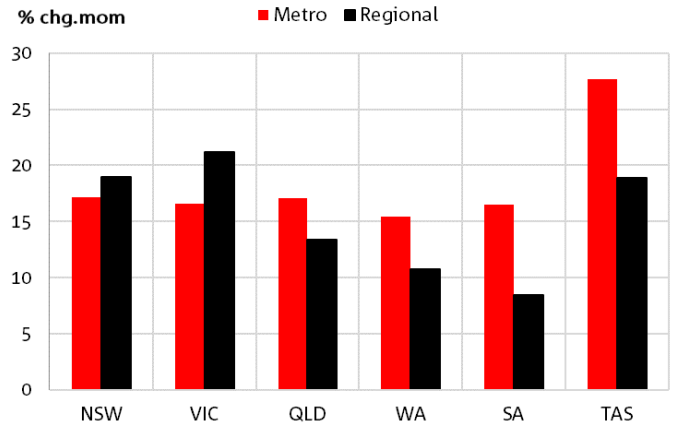
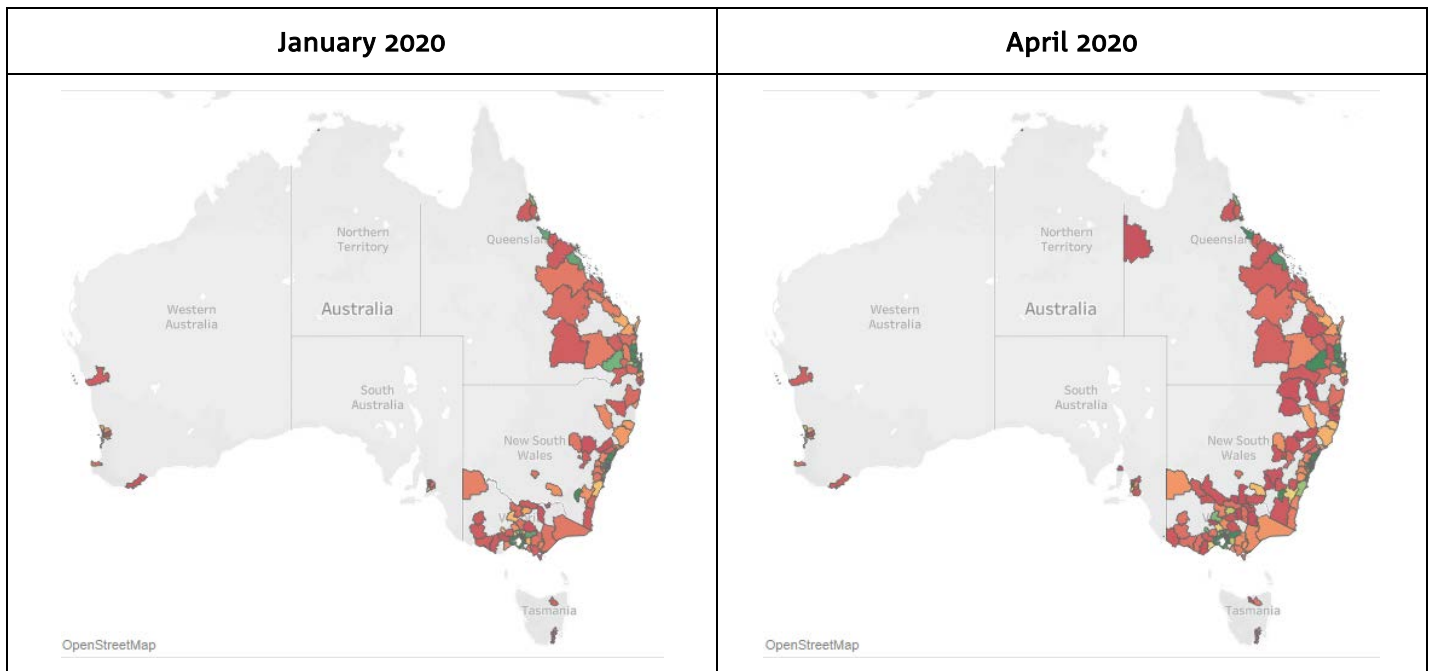


Chart 16: Online retail sales growth by state region, mom s.a.



## A HEATMAP VIEW OF THE NUMBER OF TRANSACTIONS – FASHION - BY LOCAL GOVERNMENT AREA

Last month we showed the change in the number of online transactions for grocery and liquor, and how it can vary depending on where people live. The map below shows key areas for online fashion purchases by transaction volume, with red areas lower volume and green areas higher volume. Fashion is more geographically wide spread relative to the maps shown for grocery and liquor. In January, there appears to be both metro and regional areas with sufficient volumes of transactions to display. By April, the key areas for sales spread to more regional areas, and like grocery and liquor in last month’s report, the map has begun to fill in a little more with colour, particularly along the eastern seaboard and Adelaide.



## 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).

## Group Economics

Alan Oster  
Group Chief Economist  
+(61 3) 8634 2927

Dean Pearson  
Head of Behavioural & Industry  
Economics  
+(61 3) 8634 2331

John Sharma  
Economist  
+(61 3) 8634 4514

Jacqui Brand  
Executive Assistant  
+(61 3) 8634 2181

### Australian Economics and Commodities

Gareth Spence  
Senior Economist  
+(61 0) 436 606 175

Phin Ziebell  
Economist – Australia  
+(61 0) 475 940 662

### Behavioural & Industry Economics

Robert De Iure  
Senior Economist – Behavioural  
& Industry Economics  
+(61 3) 8634 4611

Brien McDonald  
Senior Economist – Behavioural  
& Industry Economics  
+(61 3) 8634 3837

Steven Wu  
Economist – Behavioural &  
Industry Economics  
+(61 3) 9208 2929

### International Economics

Tony Kelly  
Senior Economist  
+(61 3) 9208 5049

Gerard Burg  
Senior Economist – International  
+(61 3) 8634 2788

## Global Markets Research

Ivan Colhoun  
Global Head of Research  
+(61 2) 9237 1836

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