

# NAB ONLINE RETAIL SALES INDEX NOVEMBER 2019

NAB Group Economics

- The NAB Online Retail Sales Index rebounded in November (+2.4%) on a month-on-month, seasonally adjusted basis. This follows an upwardly revised contraction in October (-1.0%).
- In year-on-year terms, the growth in the NAB Online Retail Sales Index strengthened (+9.6% y/y s.a.) in November, and continues to outpace the broader ABS retail sales series.
- All categories recorded growth in sales in month-on-month growth terms. The largest sales category, homewares and appliances (+1.9% mom, s.a.), was slightly slower than the headline result. Growth was strongest in the month for the smallest spend share category, takeaway food, followed by larger spend share categories, department stores, fashion, and personal and recreational goods. While still growing, grocery and liquor sales slowed in the month, but is still approximately 11.4% larger compared to the same period 2018. For more detail, see Charts 3, 5, 7 & 8 below. **We have also addressed trends on Black Friday Sales events in a special section – see page 6.**
- In month-on-month terms, all states and territories except NT recorded sales growth. Vic and SA grew fastest in the month, with both states also leading and recording double digit growth in year-on-year terms. While QLD makes up about a fifth of all online sales, sales growth has been much slower than NSW and VIC.
- Sales growth in Regional areas grew slightly faster than Metro areas in a month-on-month basis. In year-on-year terms, Vic was strongest for metro areas, while Tas was fastest for regional growth. See Charts 15 and 16 for more detail.
- With a strong rebound in November, domestic merchants outpaced, albeit moderately, their international counterparts. In year-on-year terms, International merchant sales continue to recover from a sales slump in the first half of the year. In contrast to the headline result, only three of eight categories, fashion, department stores, and grocery and liquor, grew more rapidly for domestic retailers in month-on-month terms. Having said that, given their relative share, although online sales growth for domestic homewares and appliances merchants was slower, their contribution to the headline category growth was greater. See charts 13 and 14, and table 3 for category growth and share.
- We estimate that in the 12 months to November, Australians spent \$30.14 billion on online retail, a level that is around 9.2% of the total retail trade estimate (November 2019, Series 8501, Australian Bureau of Statistics), and about 9.4% higher than the 12 months to November 2018.
- See comments from NAB's Chief Economist, Alan Oster, on page 2.

	Year-on-year growth (% s.a.)		
	Sep-19	Oct-19	Nov-19
NAB Online Index	11.2	8.0	9.6
ABS Traditional Retail	2.5	2.1	

	Month-on-month growth (% s.a.)		
	Sep-19	Oct-19	Nov-19
NAB Online Index	2.1	-1.0	2.4
ABS Traditional Retail	0.2	0.0	

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

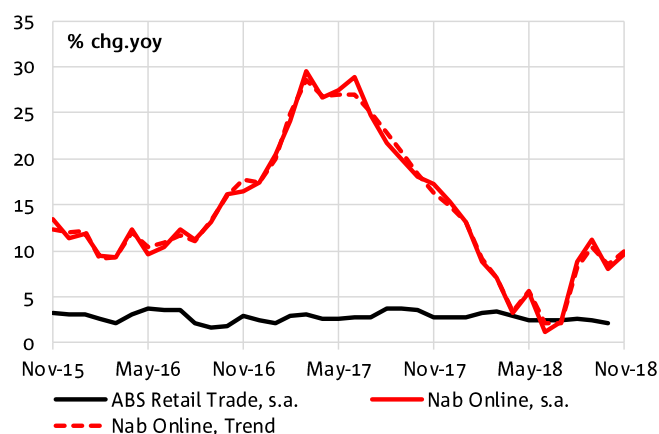
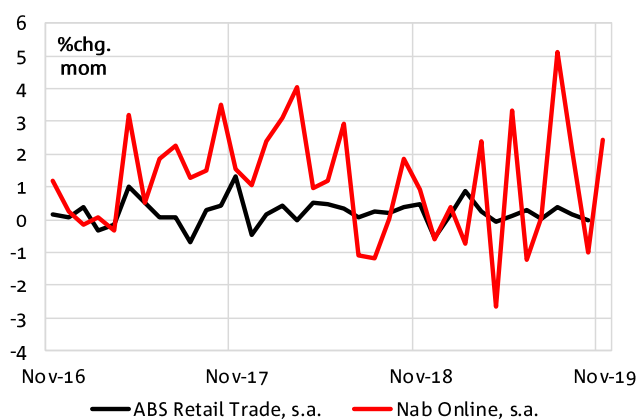


Chart 2: NAB Online retail trade data (mom, s.a.)



## NAB Chief Economist, Alan Oster commented:

Our NAB Online Retail Sales Index data indicates that volatility continues in sales, with a jump in November sales after contracting in October, and two solid months of growth in August and September prior. Online retail sales tend to be more volatile than broader retail, experiencing far greater monthly fluctuations, but the past nine months have been even more so. Looking through the month-to-month volatility, sales growth seems to have accelerated over recent months.

There has been much talk about the impact of Black Friday this year. Hence, we have taken a closer look at Black Friday, and put its impact in the context of broader month sales. While we cannot comment on any specific retailer, we did notice a significant spike when comparing this day to surrounding dates or the same event day in 2018. This spike was more noticeable for online retail (+62%), relative to the broader cashless retail indicator (+45%). However, in the context of the months sales, the effect is more limited (indeed monthly sales increases were relatively smaller compared to past years). This may be partly explained by potential inter-temporal shift in spending patterns, where consumers save earlier in the month to take advantage of the sales event. For more detail on this sales event we have a special in focus section below (see page 6).

In month-on-month terms, online sales point to continued rapid growth in the smallest sales category, takeaway food. Much larger sales categories, department stores, fashion, and homewares and appliances, rebounded in November after sales contraction in October. Though still positive, sales growth slowed for the second largest sales category, grocery and liquor, after four strong months. Growth in this category was driven by domestic merchants, which make up the bulk of sales. Sales growth for the third largest sales category, personal and recreational goods, accelerated in the month, and has seen general improvement in the past six months after period of weakness between mid-2018 and early 2019.

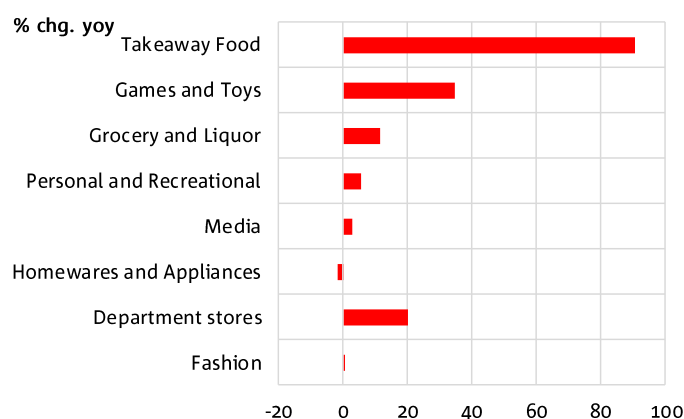
The three most populous states represent just over 80% of all online sales, slightly above their share of the population. Of these large sales states, Victoria leads in both month-on-month and year-on-year growth terms, followed by SA, NSW and WA. On average, online sales growth in Victoria has been higher than NSW over the past couple of years. Consequently, the gap in spend share between the two is narrowing.

Representing about two-thirds of all online sales, metropolitan areas recorded growth in line with the overall result, while regional areas grew faster. Victoria leads metro area sales growth in year-on-year terms, while Tasmania leads regional areas on the same basis.

By merchant location, both domestic and international retailers grew at rates consistent with the overall index, with domestic retailers slightly faster and international retailers slightly slower. Fashion, which is a key international category, grew faster for domestic merchants in the month, with international sales in this category weaker over the year. Domestic retailers also outpaced international in other key sales categories department stores and grocery and liquor. While homewares and appliances was a key area of growth for international retailers in the month, this category is dominated by domestic retailers who contributed more heavily to the headline result.

It is worth noting here that our definition of a domestic online retailer can include those merchants whose parent organisation might be overseas with an Australian subsidiary. Solely using GST as a key defining characteristic of domestic and international is no longer appropriate given changes made in July 2018.

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



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

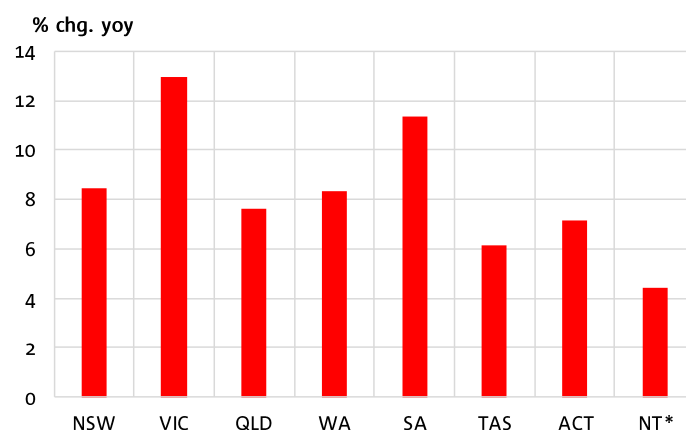


Chart 5: Online retail sales by industry, mom s.a.

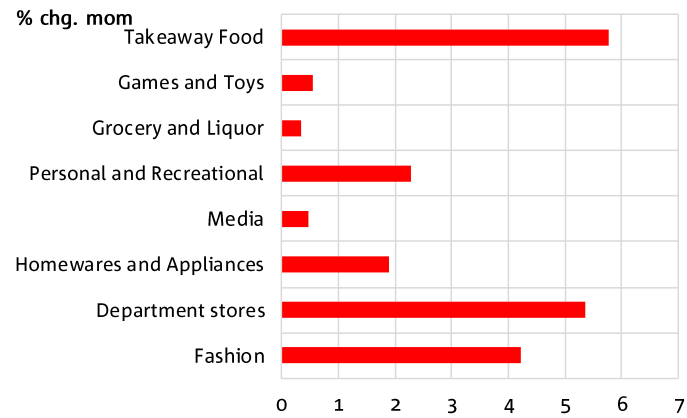
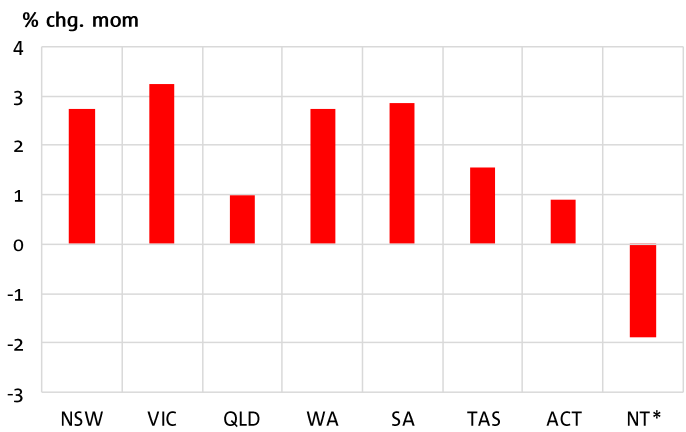
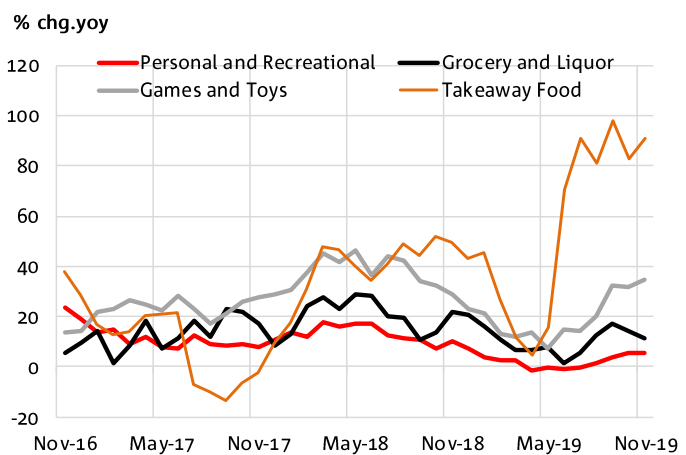
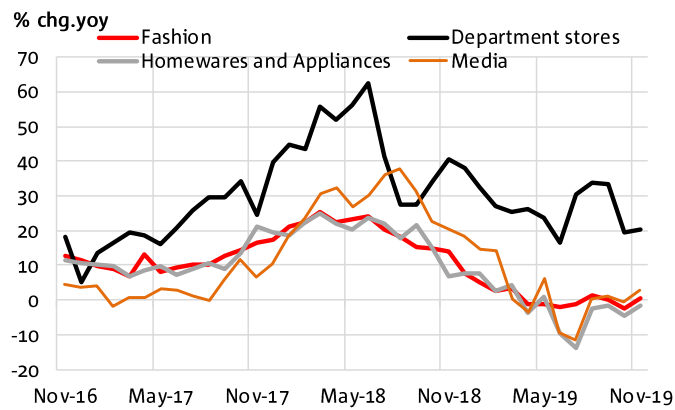


Chart 6: Online retail sales by state, mom s.a.

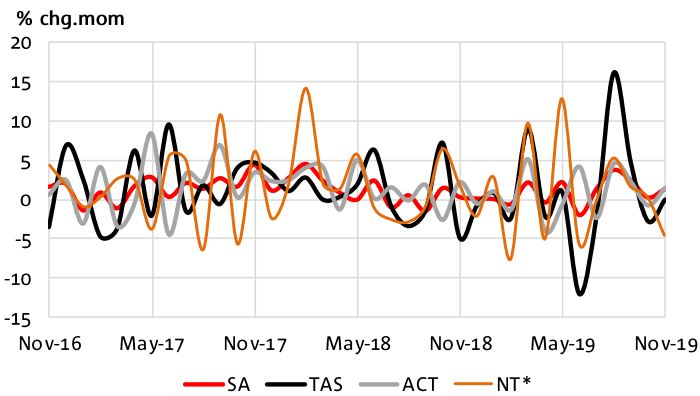
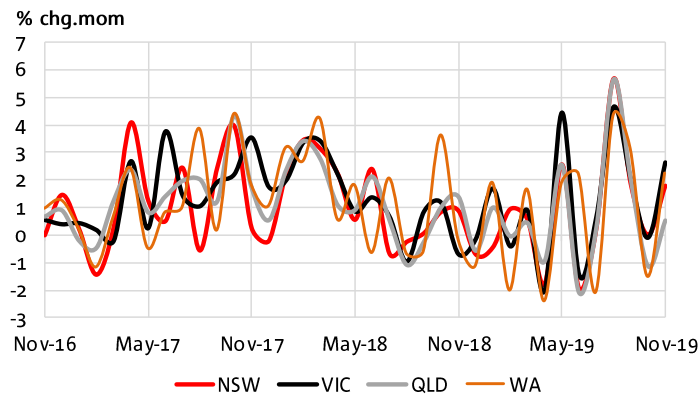


\* Note that the series representing Northern Territory is highly variable and should be used with caution.

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

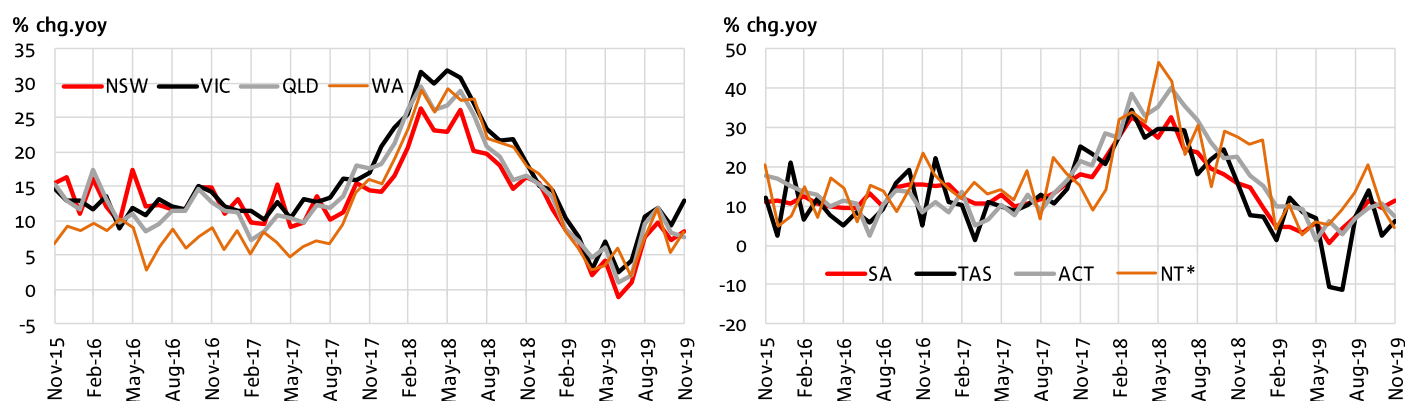


Charts 9 & 10: Online sales by state, trend



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

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



Charts 13 &amp; 14: Online sales by merchant location

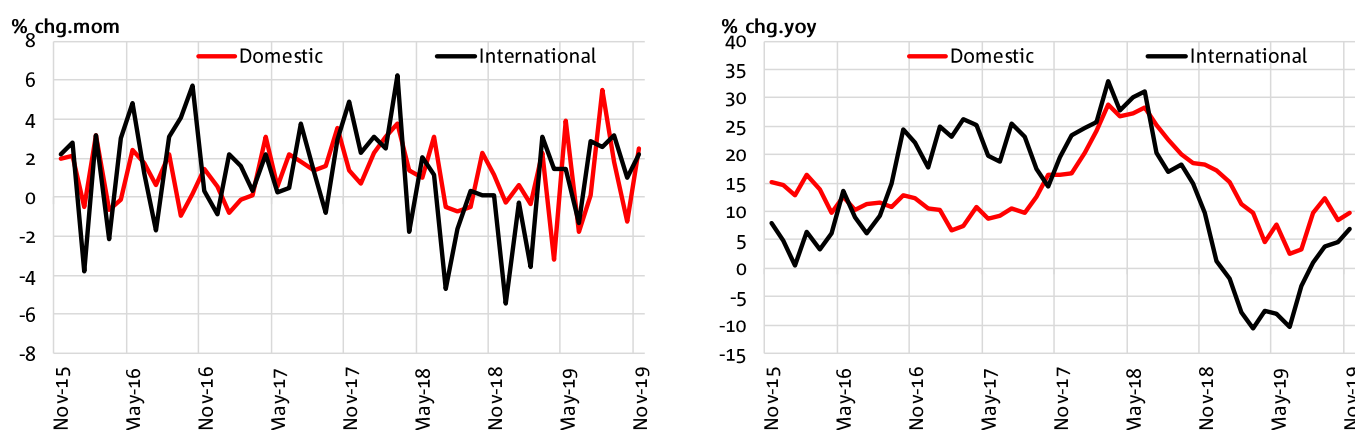


Table 3: Online sales by category and merchant location- Domestic, International (Int'l)

%	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	4.4	1.2	2.5	-6.7	78.3	21.7	12.2
Department stores	5.7	2.2	22.6	2.6	87.5	12.5	14.2
Homewares and appliances	1.9	4.6	-2.0	11.8	95.6	4.4	25.6
Media	0.5	2.3	2.6	0.5	90.2	9.8	8.1
Personal and Recreational	1.3	1.8	6.0	0.9	86.8	13.2	14.6
Grocery and Liquor	0.6	-8.9	11.5	-9.1	95.1	4.9	14.7
Games and Toys	1.8	5.7	30.7	50.5	74.7	25.3	6.9
Takeaway Food	5.6	19.6	90.1	92.9	98.0	2.0	3.7
All categories	2.5	2.2	9.8	6.9	89.2	10.8	100

# METROPOLITAN AND REGIONAL SPEND

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

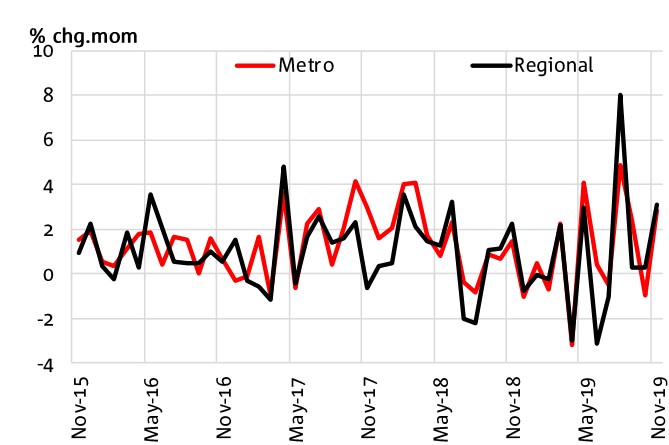
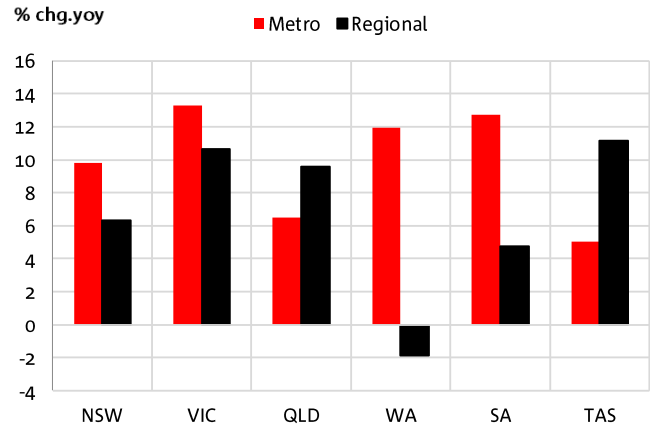
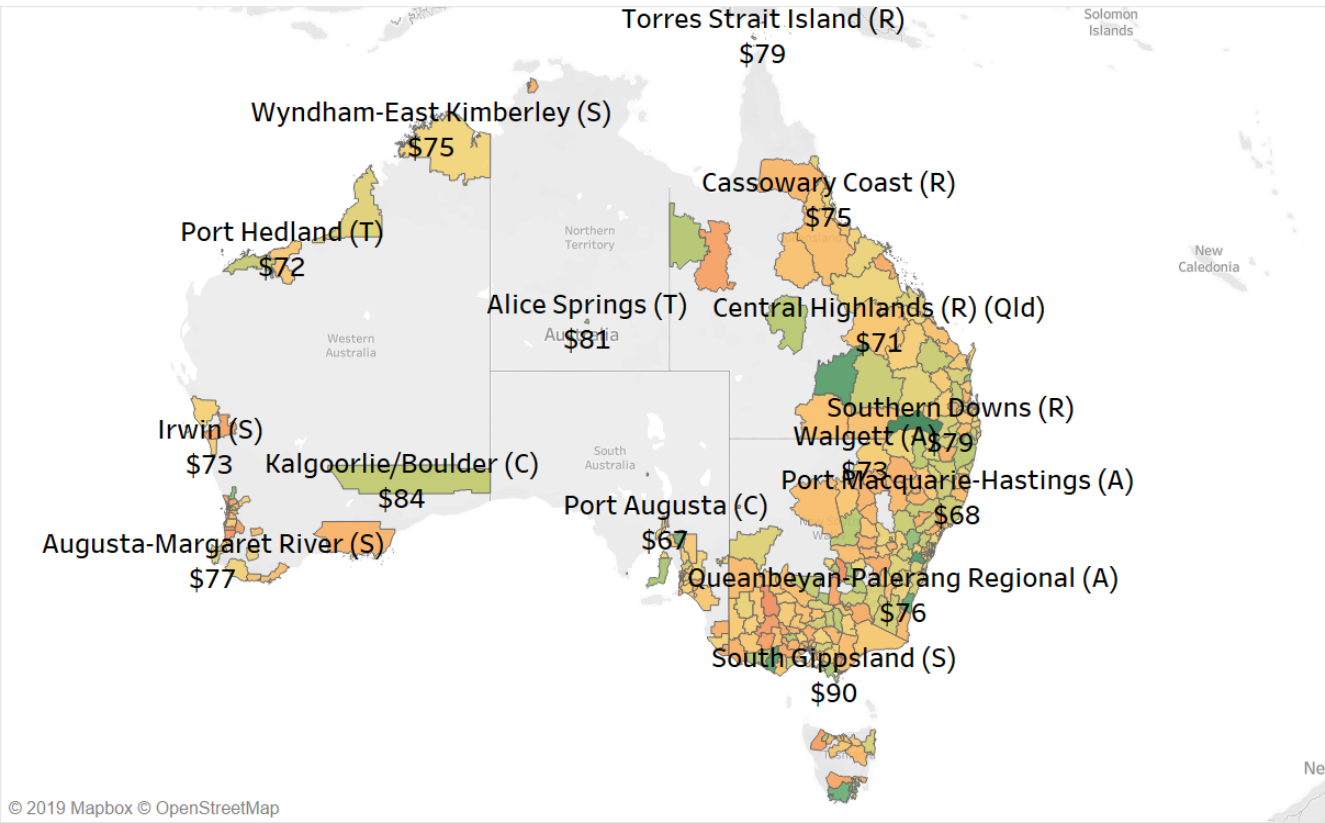


Chart 16: Online retail sales growth by state region, yoy s.a.



# A HEATMAP VIEW OF AVERAGE ONLINE SPEND BY LOCAL GOVERNMENT AREA

Online spend can vary depending on where people live. The map below shows average spend for each online transaction. Not all the top average spend areas are in capital cities, nor are they all in remote areas.



## IN FOCUS: THE IMPACT OF BLACK FRIDAY SALES

Given the relatively subdued pace of retail sales growth, there has been increased focus on sales day events. The sales event known as Black-Friday has drawn interest given high profile promotions around the event. For our analysis, we have looked at the sales event day and compared it to the same sales event day in previous years. While we don't attempt to identify each participating merchant, we look at changes in spending at the category level. We have published the overall retail impact of Black Friday in our Cashless Retail paper. We note here that there were categories that offered online-only sales which we excluded for the total retail sales comparison. We now include grocery and liquor, media, and takeaway food to the event day online-only analysis.

From a shaky start earlier in the decade, this sales event day appears to be growing. Chart 17 shows sales on Black Friday for Online retail categories increased about 62% on the corresponding sales event day in 2018. The total change in retail spend (online and instore) on this day, as reported in the Cashless Retail, was 45%. The event has been gaining momentum since 2015.

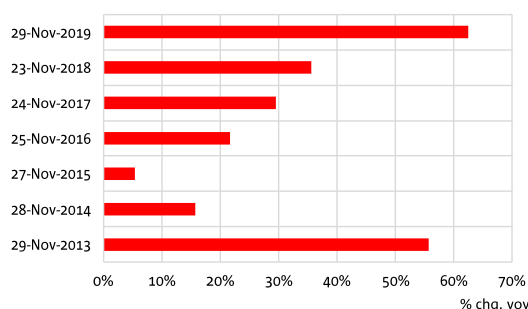
Chart 18 shows that by category, compared to the event same day 2018, by far the largest growth was recorded for sales in takeaway food at 163% growth. However, while the spend share for this category has grown from 2013, in our data, it still represents only about 4% of sales on the day. Given their share of sales, the key category drivers of the overall growth figure were homewares and appliances, department stores and personal and recreational goods. Growth in the fashion category, which represents a significant share of sales on the day, was more subdued.

It is likely that these sales events are shifting the period when sales occur, without adding to total sales. Our data suggests that Black Friday represented almost 10% of total November online sales. In 2012, this figure was just over 4%. It is also worth comparing the number of days in the month where sales are above the daily average in the month. November typically has between 16 and 19 days where the sales on a given day exceeded average daily sales in the month. In 2019, there were 16 days where the sales on those days exceeded the daily average for the month. This would tend to indicate that sales were more broadly spread across the month.

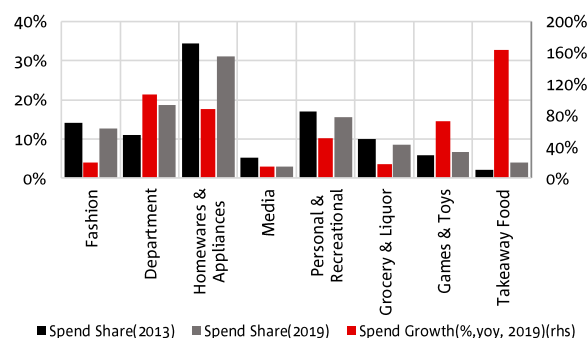
An alternative is to compare sales against the average for that weekday (e.g. compare each Monday's sales in the month against the average of Monday sales in that month). On this like with like basis, in November 2019, there were 10 days which were above the average. Of these 10 days, 7 were at the end of the month. This would tend to indicate that there has been a shift in spending patterns within the month as the event gains momentum.

All these factors are contributing to changing patterns of spending within months, and across months. This is problematic for the seasonal adjustment process, contributing to swings in the monthly retail sales data. For Online retail sales, November remains the largest sales month.

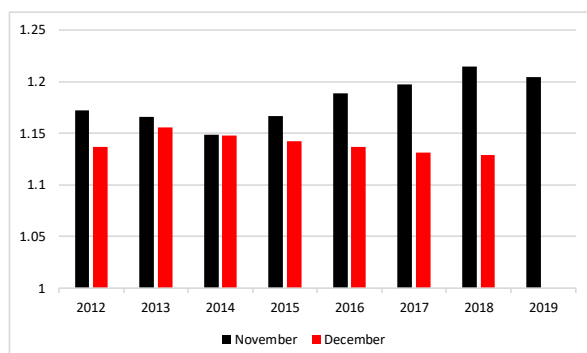
**Chart 17: Sales growth – total of selected categories**



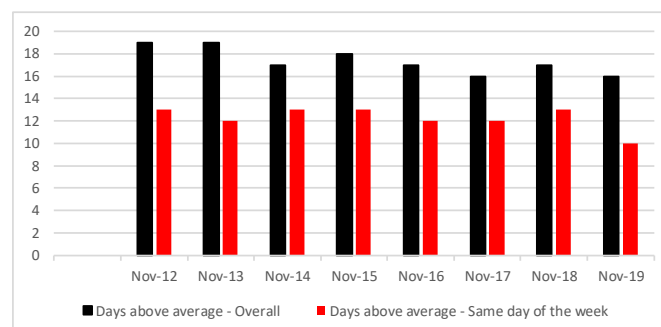
**Chart 18: Black Friday sales by category**



**Chart 19: Nab Online - Seasonal Factors**



**Chart 20: Number of November days above average**





## 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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