NAB CASHLESS RETAIL SALES INDEX SEPTEMBER 2018

NAB Group Economics

- **The NAB Cashless Retail Sales Index gained 0.2% in September on a month-on-month basis, its weakest result since April this year.** Five out of six major categories grew in the month; while other retailing contracted.

- **On the other hand, our data mapping suggests that the official ABS measure of retail sales will strengthen to 0.4% on a monthly basis, up from a print of 0.3% in August.** We previously forecast a flat print for August.

- **The NAB Cashless Retail Sales Index was up 10.4% year-on-year in September. Year-on-year growth is positive for all six NAB Cashless Retail Index major industry groupings.** Cafes, restaurants & takeaways remains the fastest growing category (16.0% y/y), followed by household goods (11.4% y/y), food (9.6%), clothing and footwear (8.0%), department stores (7.3%) and finally other retailing (6.0%). Growth for the last two categories has moderated since last month. For more detail see Charts 3, 7 & 8.

- **The previous convergence in retail spending patterns across Australia looks to be weakening.** The ACT remains the strongest performer in the monthly data, but the gap in growth between NSW, Vic, Qld, SA and WA has increased in recent times. NSW, which was the fastest growing state as recently as March, is now the slowest growing on a monthly basis, while Queensland is weakest on a yearly basis.

- **The NAB Cashless Retail Index is broader than the NAB Online Retail Index and measures all cashless retail spending by consumers using debit and credit cards (both in person and online), BPAY and Paypal.** The index is derived from personal transaction data from NAB platforms (around 2 million transactions per day) and offers a 2-3 week lead on ABS retail trade data. Likely reflecting the increasing popularity of online and contactless payments, the NAB Cashless Retail Index has continued to outpace the ABS measure of retail sales (11.3% y/y versus 3.8% y/y in August).

- See comments from NAB's Chief Economist, Alan Oster, on page 2.

Year-on-year growth (% s.a.)			
	Jul-18	Aug-18	Sep-18
NAB Cashless Index*	10.1	11.3	10.4
ABS Retail Trade	2.9	3.8	--
NAB ABS Retail Trade forecast	3.9	4.0	3.8

Month-on-month growth (% s.a.)			
	Jul-18	Aug-18	Sep-18
NAB Cashless Index*	0.7	1.0	0.2
ABS retail Trade	0.0	0.3	--
NAB ABS Retail Trade forecast	0.0	0.0	0.4

Sources: NAB, Australian Bureau of Statistics (ABS). *Data seasonally adjusted (s.a.) using TRAMO/SEATS with a trading-day and Easter adjustment.
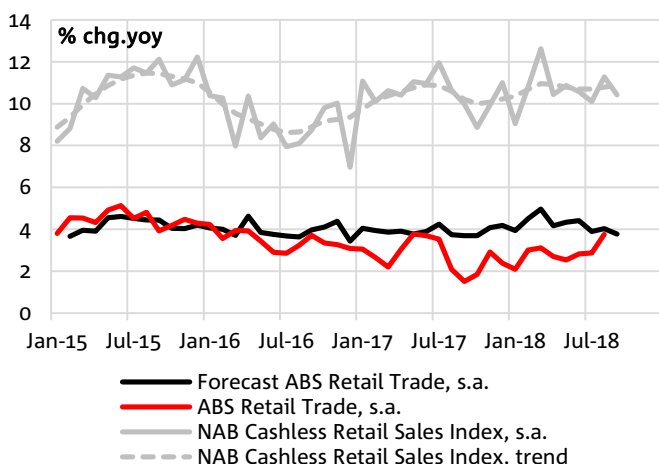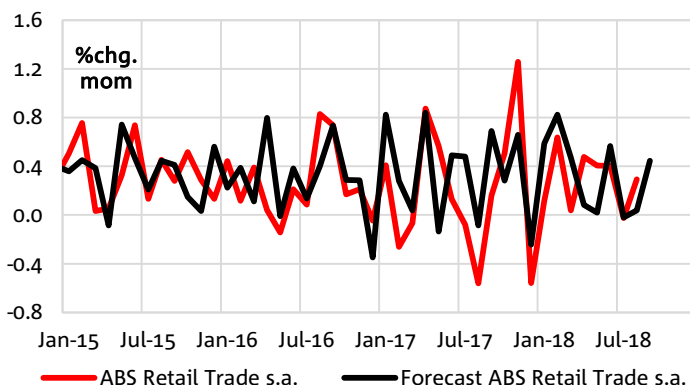
Chart 1: Cashless and total retail sales

- Forecast ABS Retail Trade, s.a.
- ABS Retail Trade, s.a.
- NAB Cashless Retail Sales Index, s.a.
- NAB Cashless Retail Sales Index, trend

Chart 2: ABS and forecast ABS retail trade data, s.a.

- ABS Retail Trade s.a.
- Forecast ABS Retail Trade s.a.

NAB Chief Economist, Alan Oster commented:

The NAB Cashless Retail Sales Index weakened considerably in September, recording 0.2% month-on-month growth - its worst result since April 2018. However, our mapping of the "official" ABS measure points to an improvement – we see the ABS measure gaining 0.4% in September. The ABS recorded 0.3% growth in August on a month-on-month basis.

This is something of a mixed result, notwithstanding the characteristic volatility in the monthly data. While our forecast of the headline ABS figure is quite positive, our own measure is weaker and this is reflected in the NAB Monthly Business Survey. Survey measures show retail is weak and deteriorating, with retail conditions again the weakest of all sectors and the only sector with negative conditions. The September 2018 survey measure of retail prices also showed weakness, recording a fall in the month after having previously risen.

Indeed, weak consumer spending remains one of our main concerns for the Australian economy. We doubt much of the current momentum can be maintained in an environment of weak wages growth, high utility prices, falling house prices and concern about high debt levels. Furthermore, this time of year sees the release of the new iPhone, which has the potential to distort the data somewhat.

There is also a higher divergence in conditions between states than earlier this year. Our monthly data shows that New South Wales has gone from being the fastest growing state in March this year to the slowest in September. Meanwhile Queensland continues to lag, recording the second slowest monthly growth.

NAB's index is derived from personal transaction data from NAB platforms (around 2 million transactions per day) and includes all cashless retail spending by consumers using debit and credit cards (both in person and online), BPAY and Paypal. NAB's Cashless Retail Index is reasonably assumed to be representative of aggregate non-cash retail sales in Australia given its large sample size. The average growth rate for NAB's index is stronger than the official ABS measure of retail trade given that it does not capture cash transactions, which is why we use our mapping equations to forecast the official ABS measure of retail trade. RBA research suggests 18% of the value of retail trade occurred via cash in 2016. Over time, the growth rates of the two series are likely to come together.

Chart 3: Cashless retail sales by industry, s.a.

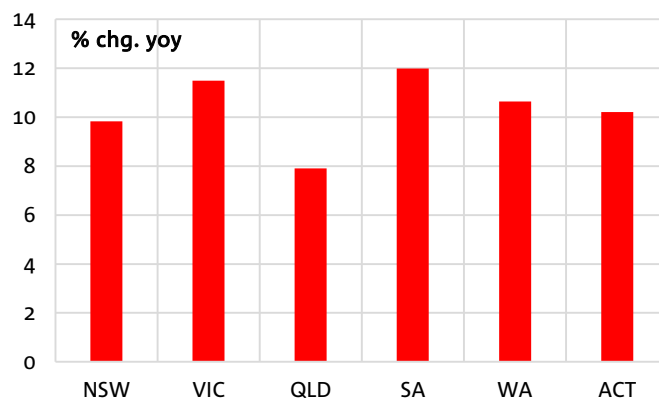### Chart 4: Cashless retail sales by state, s.a.

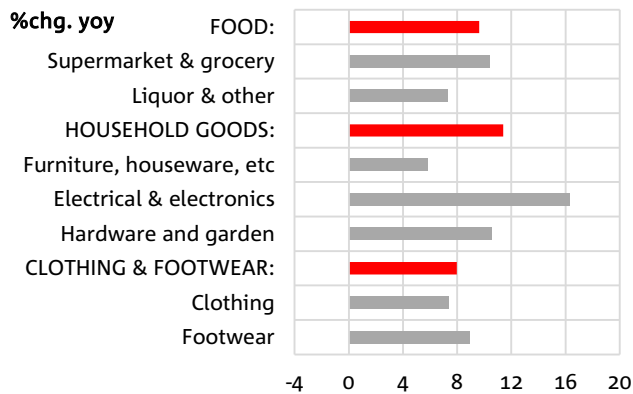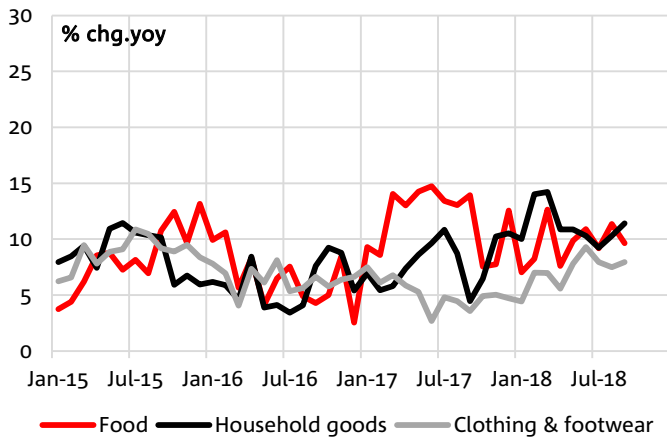### Chart 5: Cashless retail sales by sub-industry, s.a.
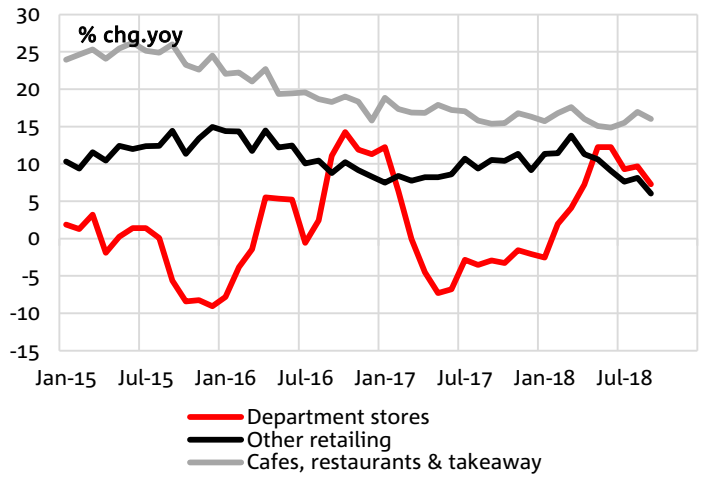

Chart 6: Cashless retail sales by sub-industry, s.a.

Charts 7 & 8: Cashless sales by industry, seasonally adjusted

Cashless and total retail sales by industry, s.a.
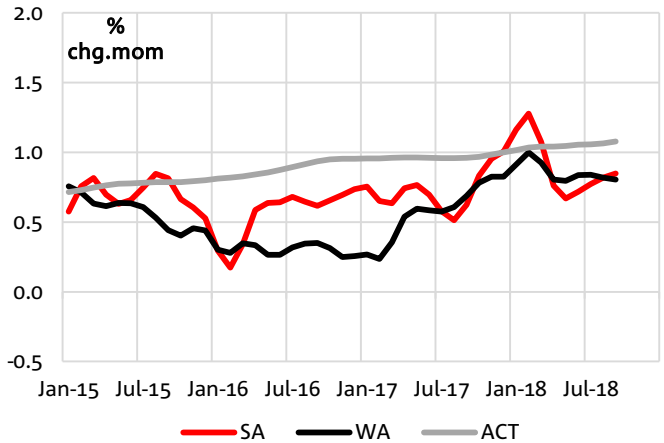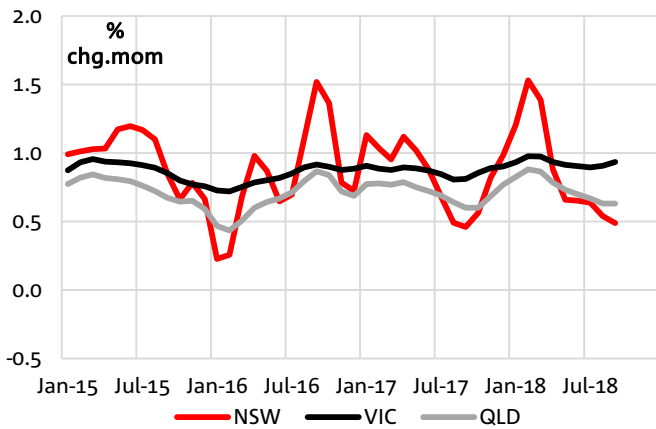
% chg.yoy

— Food — Household goods — Clothing & footwear

Cashless and total retail sales by industry, s.a.

% chg.yoy

— Department stores
— Other retailing
— Cafes, restaurants & takeaway

Charts 9 & 10: Cashless sales by state, trend

% chg.mom

— NSW — VIC — QLD

% chg.mom

— SA — WA — ACT

AUTHORS

Alan Oster, Group Chief Economist, +61 414 444 652, Alan.Oster@nab.com.au

Phin Ziebell Senior Economist, +61 475 940 662

Brien McDonald, Senior Economist, brien.mcdonald@nab.com.au

Rob Brooker, Manager – Economic Modelling

APPENDIX: METHODOLOGY AND COMPARISON WITH ABS RETAIL TRADE

The NAB Cashless Retail Sales Index is derived from NAB transactions data that have been assigned from particular merchant codes to retail industries by state. NAB electronic transactions data are based on an average 2 million transactions per day. The data are collected in real time at event record level, which allows significant flexibility to segment the data by time, location and merchant type. Transactions data may include EFTPOS, Credit Card, BPAY, Bank Transfers, Direct Debits and Paypal services where available, and include transactions with Australian and international merchants. Spending includes both online and offline transactions. The data excludes cash withdrawals made during a purchase and purchases made offline in an overseas location.

The data only capture electronic retail transactions (and not those through cash payments), hence it is subject to the changing nature and take-up rate of electronic payment methods relative to cash. Any growth in the overall transaction value may be attributable to either an increased preference towards card-based payments by consumers (such as near-field payment "PayWave"), or a higher level of spending across the economy by consumers, i.e. a pick-up in nominal sales. However, it is currently not possible to differentiate between 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 aggregated into national industries by applying to them the state shares of each industry from the ABS retail trade publication. State estimates are aggregated by applying the industry shares of each state from the same source. These adjustments are intended to correct for differences between the incidence of NAB transactions across industries and states when compared with the official ABS data.

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.

Our aim is to have a data series that is as reflective as possible of 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.
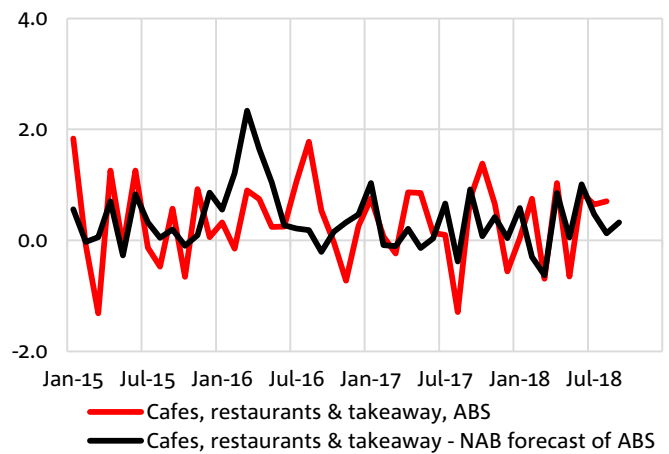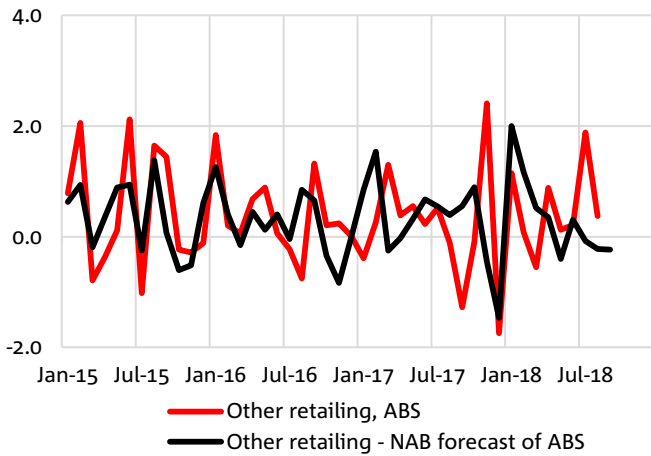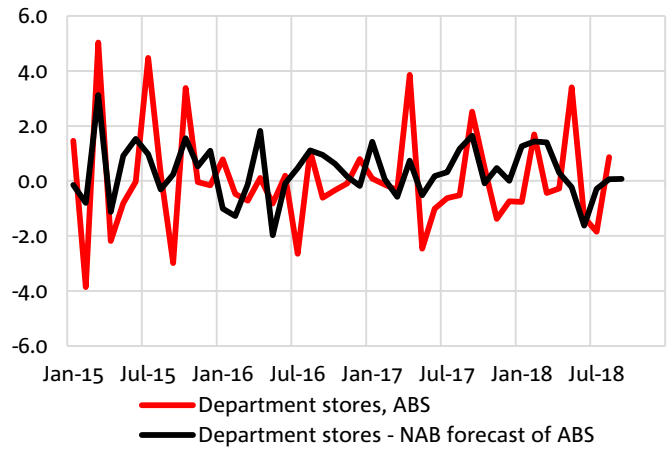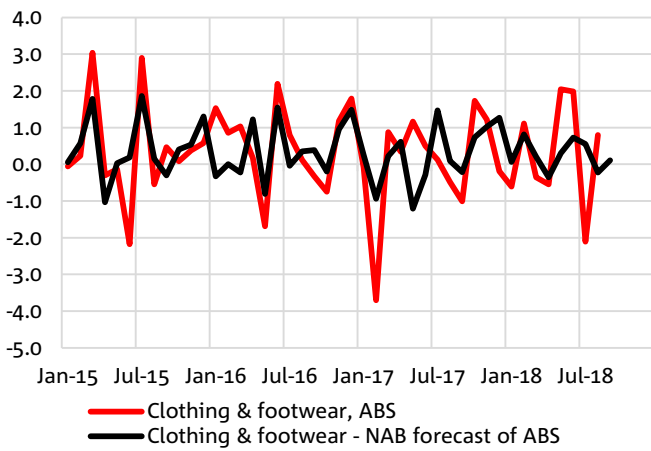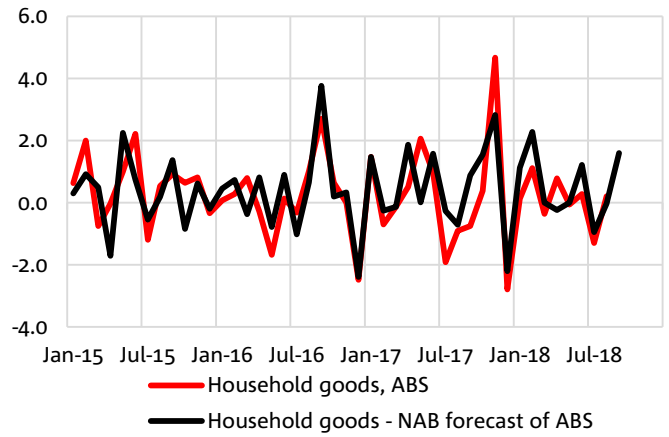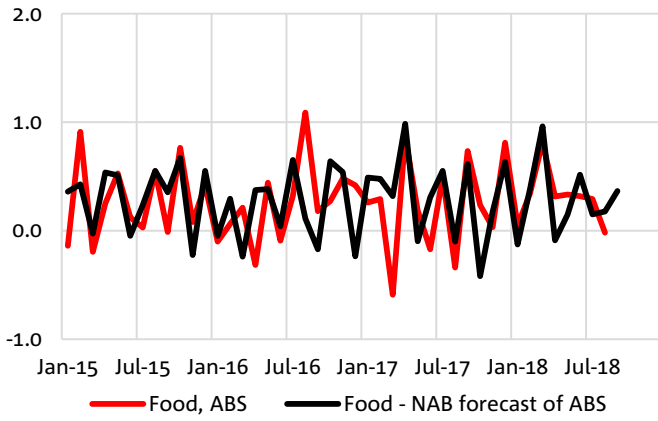
After appropriate weighting and seasonal adjustment, the components of NAB's cashless retail index (food, household goods, clothing & footwear, department stores, other retailing and cafes, restaurants & takeaway) can generate predictions of the corresponding ABS retail trade series. Aggregating these provides a forecast of total ABS retail trade.

The charts in the appendix show the relationship between the ABS total and NAB Cashless retail sales measures mapped to the ABS using monthly seasonally adjusted data, for the main retail industry groups. The sources of difference between the two series are:

- The inclusion of cash transactions in the ABS measure and changes in their share of total transactions. This share may begin to stabilise as the penetration of contactless payment systems reaches a limit reflecting minimum spend requirements for cashless transactions and because of the existence of a proportion of merchants who deal only in cash.
- The NAB data include a larger share of online transactions (7%) than the ABS (3%).
- Changes in NAB's market share of cashless transactions.
- Differences between the seasonality in the ABS and NAB series.

Therefore, the forecasts from the use of the NAB Cashless Retail Index should be used with caution.

Comparisons between mapped NAB series and ABS data by retail industry group, s.a. % change m/m

Food, ABS — Food - NAB forecast of ABS

Household goods, ABS — Household goods - NAB forecast of ABS

Clothing & footwear, ABS — Clothing & footwear - NAB forecast of ABS

Department stores, ABS — Department stores - NAB forecast of ABS

Other retailing, ABS — Other retailing - NAB forecast of ABS

Cafes, restaurants & takeaway, ABS — Cafes, restaurants & takeaway - NAB forecast of ABS

Group Economics

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

Jacqui Brand
Personal Assistant
+(61 3) 8634 2181

Australian Economics and Commodities

Tony Kelly
Senior Economist
+(61 3) 9208 5049

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

Phin Ziebell
Senior Economist
+(61 0) 475 940 662

Rob Brooker
Manager – Economic Modelling

Behavioural & Industry Economics

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

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

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

John Sharma
Economist
+(61 3) 8634 4514

Global Markets Research

Peter Jolly
Global Head of Research
+(61 2) 9237 1406

Ivan Colhoun
Chief Economist, Markets
+(61 2) 9237 1836

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