MELBOURNE INSTITUTE
Applied Economic & Social Research

Melbourne Institute Nowcast of Australian GDP & Dating the Business Cycle

December 2020

THE UNIVERSITY OF MELBOURNE

MELBOURNE INSTITUTE

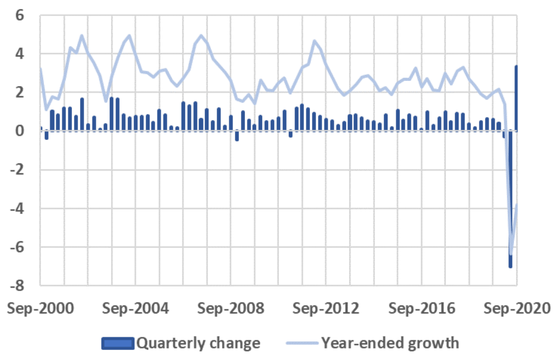
Melbourne Institute Nowcast of Australian GDP & Dating the Business Cycle

Released December 22, 2020

GDP grew by 3.3 per cent in the September quarter of 2020

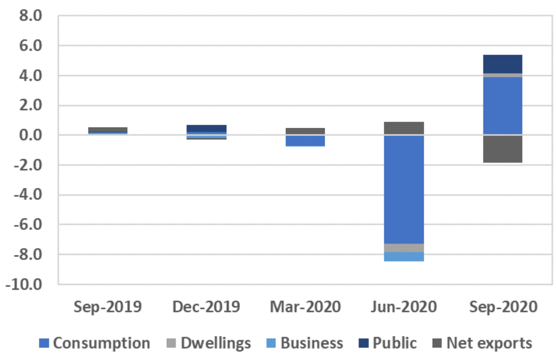
On December 2, the ABS reported that GDP grew by 3.3 per cent in the September quarter of 2020, giving an annual growth rate of –3.8 per cent and showing signs of recovery. According to the ABS, household consumption rebounded in the third quarter as restrictions eased, contributing 4 percentage points to GDP. Public expenditure continued to support growth, while net exports subtracted a large 1.9 percentage points from GDP. The next release of the National Accounts, covering the December quarter, will be on March 3, 2021.

Figure 1: GDP Growth (chain volume, per cent)



Source: ABS, up to Sep quarter 2020.

Figure 2: Contributions to GDP Growth (ppt)



Source: ABS, up to Sep quarter 2020.

First nowcast for December Quarter GDP (released in December 2020)

GDP growth is projected to be 1.4 per cent in the December quarter, giving a year-ended growth rate of negative 2.9 per cent. The expected rebound from the record fall in Q2 reflects the easing of restrictions on households and business activities, although we note the on-going uncertainty of COVID-19 on economic activity. In January 2021 the second nowcast for Q4 will be released.

Continued improvement in hours worked and housing activity, combined with improved consumer sentiment have contributed positively to this month's GDP growth nowcast for the Q4. However, the number of unemployed remains elevated, retail sales growth continues to moderate and business credit conditions remain weak, all posing risks for growth in Q4 and during 2021.

Above trend growth likely to continue

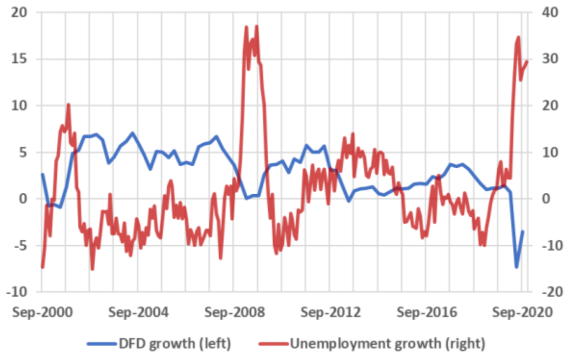
The Monthly Activity Index suggests that growth in both October and November was at a substantially above-trend rate. This reflects the economy continuing to recover from the sharp fall in April. Considerable slack, however, remains, with the unemployment rate well above estimates of the Non-Accelerating Inflation Rate of Unemployment (NAIRU). Growth in December is estimated to have been more modest, although only very limited data are available for it at present. Looking forward, the Westpac-Melbourne Institute Leading Index reached its highest ever 6-month annualised growth rate in December, signalling that above-trend growth is likely to persist for at least the next 3 to 9 months.

The number of unemployed remains high, although hours worked continues to improve[1]

The year-ended growth rate of the number of unemployed ticked up from 28 per cent in October to nearly 30 per cent in November, while the unemployment rate slid from 7 per cent in October to 6.8 per cent in November. Unemployment conditions were a drag on the growth of domestic final demand in the September quarter, which fell by 3.5 per cent over the year to the Q3. The number of unemployed remains a primary negative contributor to the Q4 nowcast.

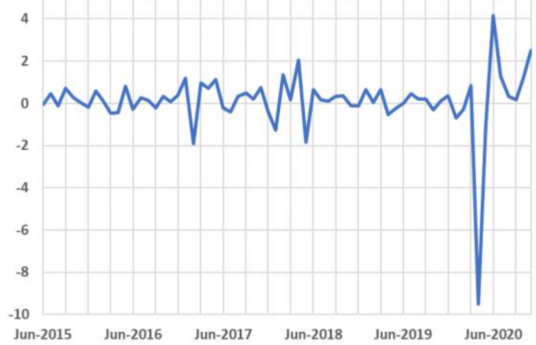
Hours worked improved further in November, growing by a sizeable 2.5 per cent from last month and closing in on the value observed in last November (short by 1.2 per cent). The monthly growth of hours worked was a primary positive contributor to this month's nowcast for Q4.

Figure 3: Unemployment and DFD
(year-ended growth, per cent)



Source: ABS, up to Nov 2020.

Figure 4: Growth of hours worked
(monthly, per cent)



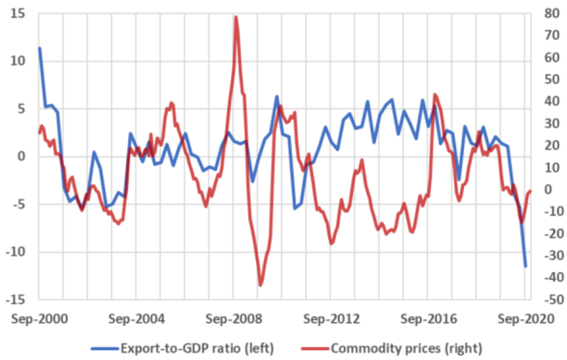
Source: ABS, up to Nov 2020.

Commodity prices in November yet to recover fully, while exports have weakened

The index of commodity prices in November was still 0.8 per cent below the value observed in the same month last year. November's weakness in the index of commodity prices will likely be a drag on exports during the quarter. The Exports-to-GDP ratio detracted by 11.5 per cent over the year to the September quarter, marking it the largest fall since the 1990s. The commodity price index has had a negative, albeit small, contribution to this month's nowcast for Q4. However, a noticeable development in December was that the iron ore price reached a nine-year high. Assuming this price rise is sustained, it should improve the nowcast going forward.

Net exports continued to expand in October, due mainly to an increase in total exports. However, the trade sector remains weak, with total exports and total imports still below their respective values in the same month last year. Overall, trade contributed negatively to this month's Q4 nowcast.

Figure 5: Commodity Prices and Exports-to-GDP Ratio (year-ended growth, per cent)



Source: ABS, up to Nov 2020.

Figure 6: Trade balance
($ billion)

Source: ABS, up to Oct 2020.

---

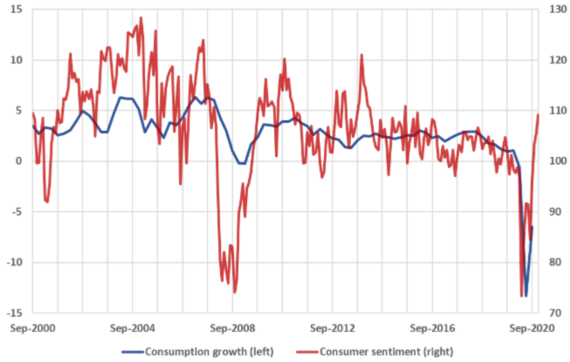
[1] Our nowcast model uses monthly information regarding labour market conditions, housing and business lending, retail sales, housing approvals, consumer expectations, trade conditions and commodity prices to gauge current economic conditions. **We note that the nowcast is currently in the experimental stage.**

Consumer sentiment continues to improve

The seasonally adjusted current conditions component of consumer sentiment increased by 3.6 points in December, after also rising by 2.3 points in November. This represents the fourth consecutive month of improvement in the current conditions index. December's value has seen the current condition index exceed 100 for the third consecutive month (values over 100 indicate that optimists exceed the number of pessimists), indicating that consumers are increasingly optimistic about economic conditions going forward.

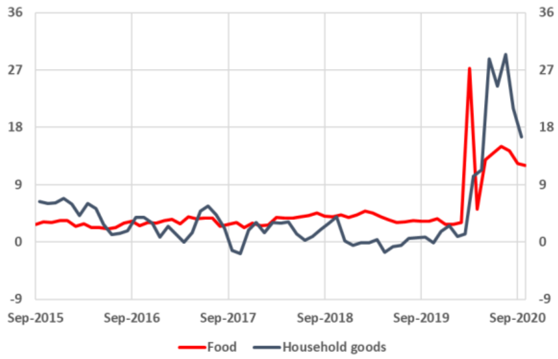
Annual growth in retail trade data for October continued to moderate for both food and non-food related retail spending. Annual growth in food related spending declined from 12.3 per cent to 12 per cent, with annual growth in non-food related spend falling from 16.5 per cent to 15.3 per cent. This is, however, expected and should continue until we reach 'normal' retail trade conditions.

Figure 7: Consumer Sentiment and Consumption
(index and year-ended growth, per cent)



Source: ABS and Melbourne Institute, up to Dec 2020.

Figure 8: Retail trade
(year-ended growth, per cent)



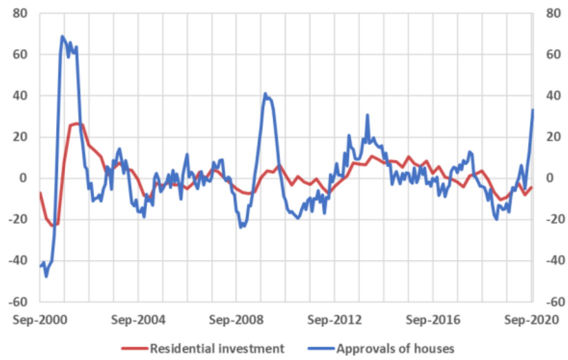
Source: ABS, up to Oct 2020.

Housing activity continues to improve, as business investment weakens further.

Annual growth in dwelling approvals was positive for the fourth consecutive month in October, with approvals being a large 33 per cent greater in October 2020 than in October last year. This compares to annual growth of 23 per cent last month. The evident surge in dwelling approvals indicates a strong rebound in housing market activity (relative to last year)

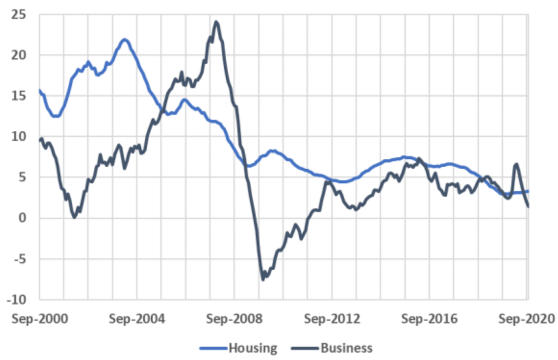
Consistent with dwelling approvals data, housing credit data shows that banks have continue to lend over the course of 2020. In October, annual growth in housing credit crept up to 3.31 per cent (versus 2.95 per cent in October 2019). Business credit, however, continued to weaken in October, with annual growth of only 1.44 per cent (compared to an already weak 2.7 per cent in October 2019). The data highlight serious concerns about investment growth in 2021.

Figure 9: Dwelling Approvals and Residential Investment
(year-ended, per cent)



Source: ABS, up to Oct 2020.

Figure 10: Housing Credit and Business Credit
(year-ended growth, per cent)



Source: ABS, up to Oct 2020.

Dating the Australian Business Cycle

The Melbourne Institute uses a Monthly Activity Index, together with the nowcast and a rule to identify turning points, to date whether the Australian economy may be in a recession.[2]

The Monthly Activity Index is constructed so that at the quarterly frequency, it coincides with the log of real quarterly GDP to ensure that both data set exhibits similar turning points. Essentially our approach interpolates the quarterly values in history, guided by monthly partial indicators of the state of the economy.[3]

Table 1 identifies the turning points (as in peaks and troughs) and the periods of contractions and expansions in business cycle analysis using monthly data. Akin to the official ABS data (shown in Table 2) the Monthly Activity Index indicates that the Australian economy is currently in a recession. The dates presented are the same as last month.

The Monthly Activity Index estimates that activity in Australia fell sharply in April – by nearly 3 per cent – and then posted a further, more moderate, fall in May. The economy is estimated to have grown extremely strongly in June, and despite some weakness in August and September, possibly associated with the Victorian lockdown. Nevertheless, the recession is dated as having ended in June, making it very short by Australian standards – 2 months, compared to an average of 11 (Table 1). Alternatively, using the official ABS data we will have to wait until the December quarter release to date the end of the recession (Table 2).

The closure of international borders has resulted in Australia's population growth currently being exceptionally low by historical standards. Consequently, growth in GDP per capita was very strong – 3.2 per cent in the September quarter - although it remains 4.7 per cent lower over the year. GDP per capita is a better measure of the wellbeing of Australians. It has a lower average growth rate than GDP, and therefore negative growth rates (and hence GDP per capita recessions) are more common (Table 3). However, currently it is delivering the same message as GDP – Australia is in a recession, and we need another quarter of positive growth to conclude it has finished.

Table 1: Monthly Business Cycle Dates

Peak	Trough	Contraction	Expansion	Cycle	
		peak to trough (months)	trough to peak (months)	peak to peak (months)	trough to trough (months)
	Jan-1975				
Sep-1981	May-1983	*20*	*80*		*100*
Mar-1990	Jun-1991	*15*	*82*	*102*	*97*
Mar-2020	May-2020	*2*	*345*	*360*	*347*
			Ongoing		
Averages		**11**	**129**	**231**	**181**
Standard deviations		**8**	**148**	**182**	**143**

Note: The average durations are rounded to full months. Includes the ongoing phase. Sample is 1974:09- 2020:12.

---

[2] The rule is known as Bry-Boschan Quarterly (BBQ). See A. R. Pagan and D. Harding (2002) "Dissecting the cycle: a methodological investigation', *Journal of Monetary Economics,* 49(2), p. 365-381. Also see http://www.ncer.edu.au/data/data.jsp. The commonly quoted "two-quarters of negative growth" rule to define a recession is an approximate way of identifying turning points in the level of economic activity.

[3] The data used are: the Westpac-Melbourne Institute Consumer Sentiment Index (time to buy a major household item and family finances versus a year ago); retail trade; the trimmed-mean CPI; the Melbourne Institute Inflation Gauge; monthly imports; the real and nominal trade-weighted exchange rate and aggregate hours worked. We construct the Monthly Activity Index from 1974:09 onwards due to availability of the monthly data. The MI Monthly Activity Index is currently still in development (particularly its open economy aspects).

Table 2: Real GDP Business Cycle Dates

Peak	Trough	Contraction	Expansion	Cycle	
		Peak to trough (quarters)	Trough to peak (quarters)	Peak to peak (quarters)	Trough to trough (quarters)
Mar-1961	Sep-1961	*2*			
Jun-1965	Mar-1966	*3*	*15*	*17*	*18*
Sep-1971	Mar-1972	*2*	*22*	*25*	*24*
Jun-1975	Dec-1975	*2*	*13*	*15*	*15*
Jun-1977	Dec-1977	*2*	*6*	*8*	*8*
Sep-1981	Jun-1983	*7*	*15*	*17*	*22*
Jun-1990	Jun-1991	*4*	*28*	*35*	*32*
Dec-2019		*ongoing*	*114*	*118*	
Average durations		**3**	**15**	**34**	**34**
Standard deviations		**2**	**8**	**38**	**38**

Note: The average durations and standard deviations are rounded to full quarter. Includes the ongoing phase. Sample is 1959:Q3 – 2020:Q3.

Table 3: Cycles in Real GDP per Capita

Peak	Trough	Contraction	Expansion	Cycle	
		Peak to trough (quarters)	Trough to peak (quarters)	Peak to peak (quarters)	Trough to trough (quarters)
	Jun-1974	*2*	4		*6*
Jun-1975	Dec-1975	*2*	6	*8*	*8*
Jun-1977	Dec-1977	*7*	15	*17*	*22*
Sep-1981	Jun-1983	*4*	9	*16*	*13*
Sep-1985	Sep-1986	*2*	5	*9*	*7*
Sep-1989	Dec-1991	*9*	5	*7*	*14*
Jun-2000	Dec-2000	*2*	34	*43*	*36*
Dec-2005	Jun-2006	*2*	20	*22*	*22*
Mar-2008	Dec-2008	*3*	7	*9*	*10*
Jun-2018	Dec-2018	*2*	38	*41*	*40*
Dec-2019		*ongoing*	4	*6*	
Average durations		**4**	**13**	**18**	**21**
Standard deviations		**2**	**13**	**14**	**15**

Note: The average durations and standard deviations are rounded to full quarter. Includes the ongoing phase. Sample is 1973:Q3 – 2020:Q3.

Melbourne Institute Nowcast of Australian GDP & Dating the Business Cycle

The Melbourne Institute Nowcast of Australian GDP and the Monthly Index used to date the business cycle use monthly information regarding labour market conditions, housing and business lending, retail sales, housing approvals, consumer expectations, trade conditions and commodity prices in order to gauge current economic conditions. **We note that the nowcast and the dating methodology are currently in the experimental stage.**

For information on the data contained in the report contact the Melbourne Institute, The University of Melbourne, on (03) 8344 2196.

For more information about the Melbourne Institute, see:
http://melbourneinstitute.unimelb.edu.au/

For more information about Macro@MI and other reports see:
http://melbourneinstitute.unimelb.edu.au/research-programs/macroeconomics