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Applied Economic & Social Research

Melbourne Institute Nowcast of Australian GDP & Dating the Business Cycle

September 2020

THE UNIVERSITY OF MELBOURNE

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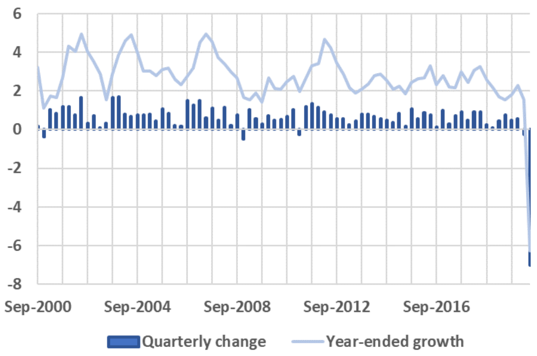
& Dating the Business Cycle

Released September 25, 2020

GDP contracted by 7 per cent in the June quarter of 2020

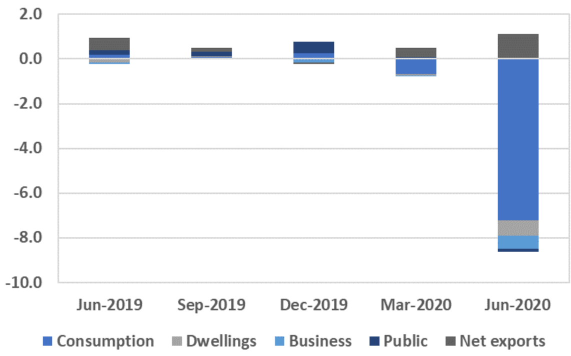
On September 2, the ABS reported that GDP contracted by 7 per cent in the June quarter of 2020, giving an annual growth rate of -6.3 per cent, marking it the worst quarter in recorded history. According to the ABS, household consumption fell unprecedentedly, detracting 6.7 percentage points from GDP. Public expenditure and net exports contributed positively to growth. The next release of the National Accounts, covering the September quarter, will be on December 2, 2020.

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



Source: ABS, up to Jun quarter 2020.

Figure 2: Contributions to GDP Growth (ppt)



Source: ABS, up to Jun quarter 2020.

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

GDP growth is projected to be 1.3 per cent in the September quarter, giving a year-ended growth rate of -5.5 per cent. The nowcast reflects the on-going effects of COVID-19 on economic activity and is consistent with a gradual rebound from the record fall in Q2. Our second nowcast for Q3 will be in October.

Continued improvement in hours worked and better than expected non-food retail sales and dwelling approvals data were the primary contributors to this month's GDP growth nowcast for the September quarter. However, the rate of unemployment remains high and the Consumer Sentiment Index, despite its strong rebound in September, is still in negative territory.

A short, sharp recession?

The June quarter national accounts confirmed that COVID-19 pushed Australia into its first recession since the early 1990s. Past Australian recessions last, on average, 3 quarters – see the "Dating the Business Cycle" section. Our nowcast of growth in the September quarter, if followed by growth also in the December quarter, corresponds to the Australian economy reaching a trough in June quarter, and the recession lasting only two quarters. Based on our monthly estimates of economic activity the recession appears to be even shorter.

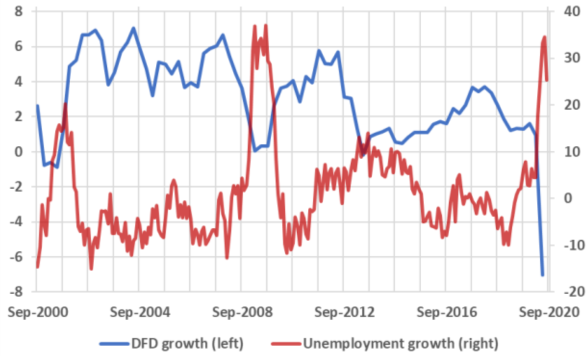
While the recession might have been short and sharp, the recovery need not be and may well be gradual, at least until a vaccine is discovered or international borders are re-opened.

The unemployment rate remains high, although hours worked has continued to improve[1]

The unemployment rate fell back slightly to 6.8 per cent in August from the 7.5 per cent in July. The number of unemployed grew by 25 per cent in August, down by 10 per cent from the peak 35 per cent in July. Nevertheless, grim unemployment conditions have taken their toll on the growth of domestic final demand (DFD), which fell by 7 per cent in the June quarter (Figure 3). The growth rate of the number of unemployed remains a negative contributor to the September nowcast.

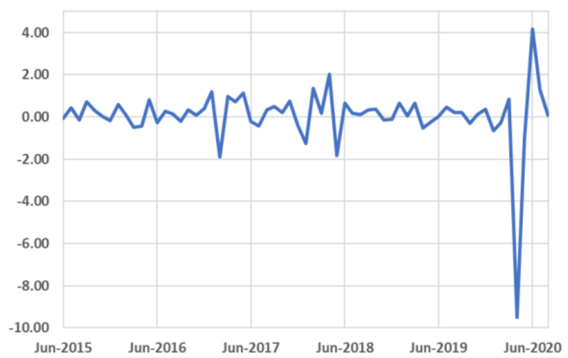
Hours worked seems to have temporarily stabilised in August, with a positive, albeit small, 0.1 per cent rate of monthly growth. The monthly growth of hours worked was also a primary positive contributor to the September nowcast. Overall, however, hours worked in August was still 5 per cent below its value in the same month last year.

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



Source: ABS, up to Aug 2020.

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



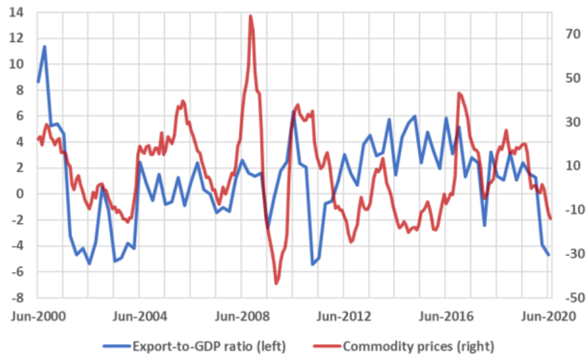
Source: ABS, up to Aug 2020. Note: Starts in Jun 2015 to reflect recent volatility.

Commodity prices continue to fall

Commodity prices have been falling in recent months, with the latest growth rate of the index of commodity prices being **-**12 per cent in August. The decline is observed in all categories, particularly in non-rural commodities. Consistent with this decline, the growth rate of the exports to GDP ratio fell by 5 per cent in the June quarter.

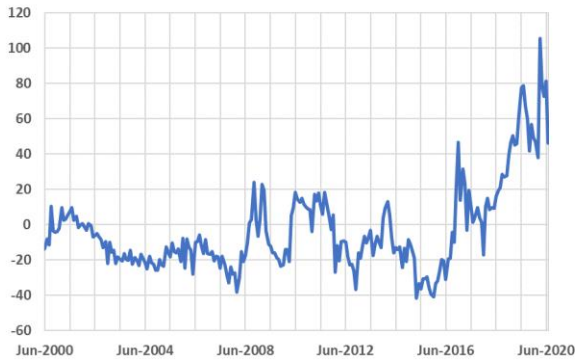
After peaking in April, the trade balance has fallen back to the levels observed at the beginning of the year. Overall, trade remains a negative contributor to the September nowcast.

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



Source: ABS, up to Aug 2020.

Figure 6: Trade balance
($ billion)



Source: ABS, up to Jul 2020.

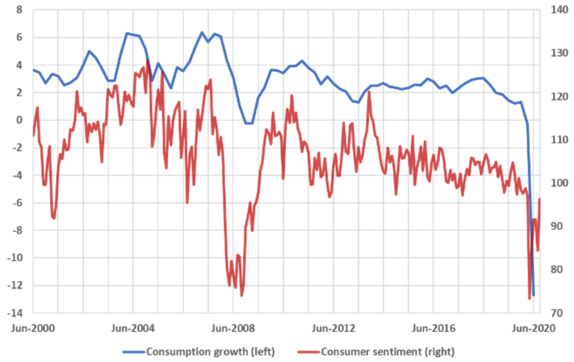
[1] Our nowcast model uses monthly information regarding labour market conditions, housing and business lending, retail sales, housing approvals, consumer expectations, trade conditions and commodity prices to gauge current economic conditions. **We note that the nowcast is currently in the experimental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

Despite a September rebound, consumer sentiment is still in negative territory

Consumer sentiment rose by 18 per cent in September, albeit following consecutive falls of approximately 6 and 10 per cent in July and August. However, sentiment remains 4.5 per cent below its value in September last year. The current value of the Consumer Sentiment Index also indicates that the number of pessimists is greater than the number of optimists, suggesting that consumers remain cautious about economic conditions.

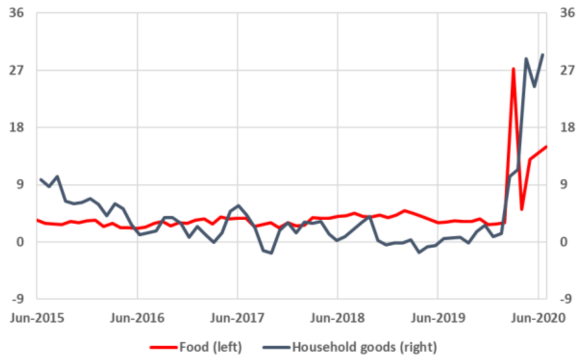
In terms of retail trade, July's data highlights key differences in food and non-food related retail spending. In July, the growth of food-related retail spending was relatively static, whereas annual growth in non-food spending rose from approximately 25 per cent in June to nearly 30 per cent in July. Accordingly, retail spending has contributed positively to the Q3 nowcast. It is noted, however, that retail trade only partially reflects household consumption so caution should be exercised when interpreting retail trade data.

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



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

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



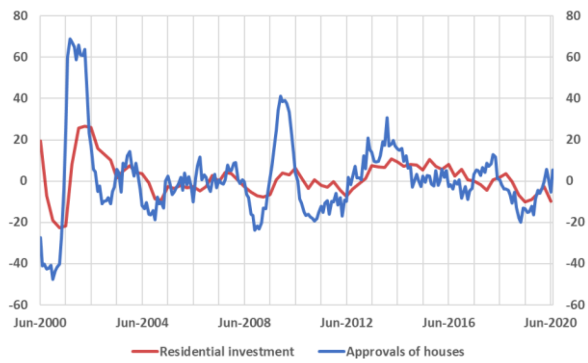
Source: ABS, up to Jul 2020. Note: Starts in Jun 2015 to better reflect recent volatility.

The growth rate of dwelling approvals improved in July

Growth in dwelling approvals rose by 5.3 per cent in July, after falling by 5.4 per cent in June. Although there is significant volatility in dwelling approval growth rates, July's increase in dwelling approvals suggests that housing market conditions are – at least for now- better than expected. Accordingly, dwelling approvals in July have contributed positively to the nowcast for Q3.

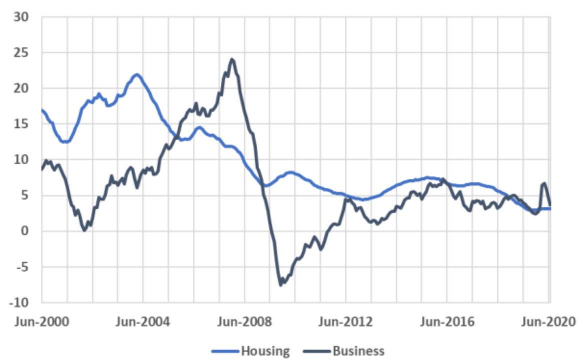
Credit conditions in July were also relatively stable, with both business credit and housing-related credit exhibiting annual growth commensurate with the levels observed in previous months.

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



Source: ABS, up to Jul 2020.

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



Source: ABS, up to Jul 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. A change from last month is that the peak is now dated to have occurred in March, rather than February.

As previously discussed, our nowcasts combined with the official data suggest that the recession appears to be short and sharp by historical standards. The Monthly Activity Index reinforces this; indeed, it suggests that the economy *contracted by 3 per cent in April alone.* It also suggests that recession *ended* in May. Activity is estimated to have recovered in June and July, but faltered thereafter, which may reflect the second wave in Melbourne weighing on growth. It should be noted that the estimates for the most recent months are likely to be revised as more partial data become available. Substantial revisions might also result in revisions about the duration of the recession.

The Monthly Activity Index is designed to correspond to the log of real GDP. Arguably a better measure of living standards is real GDP per capita. As real GDP per capita adjusts for population growth it has a lower trend growth than real GDP and therefore will fall more often, corresponding to recessions occurring more frequently. This is evident in Table 3. Focussing on the most recent episode, both of the official measures date the peak of the cycle as occurring in the December quarter 2019.

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	128	231	181
Standard deviations		8	149	182	143

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

[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**	**37**

Note: The average durations and standard deviations are rounded to full quarter. Includes the ongoing phase. Sample is 1959:Q3 – 2020:Q2.

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				
Jun-1975	Dec-1975	*2*	4		*6*
Jun-1977	Dec-1977	*2*	6	*8*	*8*
Sep-1981	Jun-1983	*7*	15	*17*	*22*
Sep-1985	Sep-1986	*4*	9	*16*	*13*
Sep-1989	Dec-1991	*9*	12	*16*	*21*
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**	**16**	**22**	**19**
Standard deviations		**2**	**12**	**13**	**12**

Note: The average durations and standard deviations are rounded to full quarter. Includes the ongoing phase. Sample is 1973:Q3 – 2020:Q2.

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.

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