E – BRIEF

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Business Cycles

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1 Introduction

The onset of the Global Financial Crisis has stimulated interest in fluctuations in business activity. Business activity does not proceed at a constant pace, but expands and contracts. The term for this expansion and contraction is the business cycle. This E-Brief examines the nature of business cycles and assesses whether previous cycles can provide clues to our economic future.

2 Definition of a Business Cycle

The most commonly used definition of a business cycle is that developed by Arthur Burns and Wesley Mitchell. In their definition:

> Business cycles are a type of fluctuation found in the aggregate economic activity of nations. . .a cycle consists of expansions. . .followed by similarly general recessions, contractions and revivals which merge into the expansion phase of the next cycle. . .[1]

3 Documentation of Business Cycles in the Nineteenth and Twentieth Century

Ever since the development of modern industry and commerce, there have been well-documented periods of bubbles or booms and busts. Between the end of the nineteenth century and the first half of the twentieth century, there have been at least two major episodes of such activity. The boom of the 1880s and the subsequent depression of the 1890s, and the boom of the 1920s and the depression of the 1930s.[2]

4 Determining Business Cycles

In was particularly in regard to the depression of the 1930s that, in 1937, Roosevelt's Secretary of the Treasury (Henry Morgenthau) asked the National Bureau of Economic Research (NBER, an economic research organisation established in 1920) to undertake research specifically aimed at estimating the length of business cycles.

A year later, two NBER economists (Wesley Mitchell and Arthur Burns) produced a report entitled *Statistical Indicators of Cyclical Revivals*.[3] In 1946 Burns and Mitchell produced a much more extensive report entitled *Measuring Business Cycles*. This report attempted to pinpoint the duration of business cycles.[4]

In 1978 the incoming president of the NBER established the NBER's Business Cycle Dating Committee, to officially chronicle the onset of contractions.[5] Alan Greenspan's biographer (Justin Martin) has described the NBER as "the official arbiter of recessions, declaring when they begin and when they end."[6]

5 Duration of Business Cycles: American Calculations

In their 1946 study, Burns and Mitchell pinpointed five periods during the 1920s and the 1930s when business activity peaked and then fell:

- first quarter of 1920 (peak) to the third quarter of 1921 (trough)
- second quarter of 1923 (peak) to the third quarter of 1924 (trough)
- third quarter of 1926 (peak) to the fourth quarter of 1927 (trough)
- second quarter of 1929 (peak) to the first quarter of 1933 (trough)
- second quarter of 1937 (peak) to the second quarter of 1938 (trough).[7]

Since the release of the Burns and Mitchell report in 1946, through to the last years of the twentieth century, the NBER has identified nine peaks and troughs in the American business cycle.

On an overall level, between 1854 and 1991, the NBER has estimated the average length of a business cycle, through its expansionary and (accompanying) contractionary phase, to be around four and a half years.[8]

6 Business Cycles: Australian Experience in the late Twentieth Century

Business cycles have been as much a part of the Australian experience as that in the USA. In Australia they have often been associated with boom-bust episodes. Ernst Boehm and Peter Summers have documented the periods of Australian business cycles from the 1960s to the opening of the twenty-first century, as follows:

- August 1960 (peak) to June 1961 (trough)
- April 1965 (peak) to January 1968 (trough)[9]
- January 1971 (peak) to January 1972 (trough) – coincided with the 1969 to 1972 nickel mining boom (when shares in Poseidon NL went from $1.15 in 1969 to $280 in 1970 and back to $9 in 1972)[10]
- February 1974 (peak) to October 1975 (trough) – the initial collapse of the 1970s property boom in Australia (when Mainline Corporation and Cambridge Credit, both based in Sydney, went into receivership)[11]
- August 1976 (peak) to February 1978 (trough) – the second stage of the collapse of the 1970s property boom (when the Queensland Permanent Building Society and IAC and Parkes Developments, both based in Sydney, all went into receivership)[12]
- September 1981 (peak) to December 1982 (trough)
- November 1985 (peak) to November 1986 (trough)
- December 1989 (peak) – December 1992 (trough) – collapse of the mid- to late 1980s property boom (during

which Westpac made a profit of $1.1 billion in 1988 and a loss, in 1992, of $1.6 billion)[13]

- August 1995 (peak) to February 1997 (trough).[14]

In their study of business cycles, Boehm and Summers calculated that the average length of a contraction in Australia was around 20 months.

7 Dot.Com Boom-Bust of 1995-2001

In 1995 a boom began in the USA in connection with the commercialisation of the internet. It began with the initial public offering (IPO) of Netscape (the most popular browser for the world wide web). In a matter of days shares in Netscape went from $28 to $71. Subsequently, according to Zhu Wang, "A huge wave of companies, so-called 'dot-coms', were then formed to conduct business via the internet. . .in the late 1990s, about 7,000-10,000 new substantial dot-com companies were established".[15]

In January 2001 the peak of the boom was reached when America Online acquired Time Warner. By this time the Dow Jones Industrial Average had risen from 4,003 (at the beginning of 1995) to 11,723 at the beginning of 2001.[16] The boom quickly turned to a bust. By March 2001, Yahoo shares (which had been trading at $200) dropped to $15 and Amazon shares (which had been trading at $100) dropped to $10.[17] In late 2002, the Dow Jones dropped to 7,286. By early 2003, nearly 5,000 dot-com firms had gone out of business.[18]

8 Subprime Mortgage Boom Bust of 2002 – 2007 (and the accompanying Global Financial Crisis)

As a partial consequence of the American Federal Reserve's cuts to interest rates (in turn part of the Fed's attempt to counteract the 2001 bust),[19] a new boom developed in high-risk (or "subprime") lending to poorer families.

The foundation for the subprime boom was laid by Jimmy Carter when he obtained passage of the *Depositary Institutions Deregulatory and Monetary Control Act 1980*: undoing controls (instituted by Franklin Roosevelt) over any element of usury in the terms and conditions by which commercial organisations offered mortgages.[20]

After the dot-com boom, financiers turned their attention to subprime mortgage lending: made easier by the cut in the federal funds rate, at the end of 2001, to just under 2%. The lowered rates meant that in the United States the monthly cost of a mortgage on a $500,000 home fell to about the monthly cost of a mortgage on a $250,000 home purchased two years earlier.[21] Edward Gramlich wrote that: "From essentially zero in 1993, subprime mortgage originations grew to $625 billion by 2005."[22]

The subprime lending boom approached its peak in 2006: the Dow Jones reaching 11,000 for the first time since 2001. In January 2007 Ameriquest (one of the biggest subprime lenders) collapsed. In April 2007 New Century (the third largest subprime lender, with loan production of $51.6 billion) filed for bankruptcy protection.[23] A year later Countrywide, the foremost subprime lender, was bought out by Bank of America.[24]

Mainstream banks, that had underwritten the subprime lenders, similarly found themselves in difficulties. In January 2008, Merrill Lynch announced that it had accumulated losses of $15 billiion. Three months later Bear Stearns, another underwriter of subprime lenders, allowed itself to be acquired by J.P. Morgan. In September 2008, Lehman Brothers collapsed and Merrill Lynch was taken over by the Bank of America.[25] The Dow Jones index, which had closed at a high of 14,164 in October 2007, dropped to 7,115 in February 2009.[26]

9 Australia's Resources Boom in the early Twenty-First Century

Australia itself had experienced some of the aftershocks from the dot-com boom, the Australian Stock Exchange (ASX) all ordinaries index dropping from 3,391 in February 2002 to 2,779 in March 2003. [27] In 2004, however, an expansionary phase began to develop in the minerals industry.

The high point of this particular "resources boom" in Australia was reached in late 2007 when BHP made a $145 billion takeover bid for Rio Tinto.[28] From its March 2003 low of 2,779 the ASX all ordinaries index reached 6,698 in October 2007.[29]

Australia, unlike the USA, was not particularly subject to the fortunes of subprime lending because only a small segment of housing lending was conducted on this basis. As Saul Eslake pointed out in late 2008:

> 'Non-conforming' loans (the closest thing we have to subprime) represent around 1% of all mortgages outstanding in Australia, as against around 15% in the US. . .[30]

Nevertheless, not only did the resources boom itself begin to collapse (the following year) but the collapse of the subprime market in the USA contributed to an overall decline in confidence (the all ordinaries dropping to 4,946 in September 2008). BHP abandoned its bid for Rio in November 2008: by the following month Rio Tinto's share price had dropped from $155 (in May 2008) to $40.[31] Between 2008 and 2009, the contract price for iron ore dropped from US$92 a tonne to US$61 a tonne.[32] In March 2009 the all ordinaries had slumped to 3,388, a drop of nearly 50% from its peak in October 2007.[33]

10 Immediate Prospects

Of greatest current interest is the recovery phase of this present business cycle. During 2009 unemployment rates in the USA and UK, respectively, were 9.7% and 7.7%. In Spain the unemployment rate was 18.5%. In Australia, however, the unemployment rate appears to have peaked at 5.8%.[34]

In February 2009 the Prime Minister (Kevin Rudd) announced a $42 billion stimulus package to address the effects of the global financial crisis, and the effects of the collapse of the resources boom, on the Australian economy.[35]

In addition to the stimulus provided by the government, production in Australia was helped by the strength of its trading relationship with China. As the Secretary of the Treasury (Ken Henry) remarked:

> The aggressive stimulus measures put in place by the Chinese government have largely targeted infrastructure investment, boosting China's demand for Australian

> commodities such as iron ore and coal. This, in part, explains why, despite the global downturn, our export volumes have remained remarkably buoyant. . .[36]

By the end of 2009, despite the persistence of substantial rates of high unemployment in the USA and Britain, there appeared to be faint signs of a recovery in Australia. In a speech to the 6th National Housing Conference (November 2009), the deputy governor of the Reserve Bank of Australia (Ric Battellino) declared that the Australian economy had "recently entered a new upswing". This was based on a 0.6% increase in gross domestic product in the three months April-June 2009.[37]

11 Conclusion

As noted, Boehm and Summers calculated that the average length of a business cycle contraction in Australia was around 20 months.[38] In the USA the NBER's Business Cycle Dating Committee declared that a peak in American business activity had occurred in December 2007 (a month after the peak in the Australia ASX all ordinaries).[39] On the basis of the average contraction period lasting between 1½ and 2 years, it seems possible that the Reserve Bank's Ric Battellino's prediction of a new upswing in the economy ties in nicely with these average business cycle timings.[40]

For the longer-term, the question is whether production will always take place within the context of cycles in business, with their recurring peaks and troughs (and frequent booms and busts). Alan Greenspan, for instance, had direct experience of attempting to intervene in business cycles when, in December 1996, (after the Dow had gone from 4,000 to 6,000 in the space of a year) he gave an address to the American Enterprise Institute using the words "irrational exuberance" to describe the onset of the dot.com boom. The following year, in an attempt to contain the boom, Greenspan raised short-term interest rates from 5.25% to 5.5%. Nevertheless, as Greenspan further observed, "the bull charged on" and, by June 1997, the Dow had reached 7,800. After this happened, Greenspan (on his own admission) gave up trying to directly influence the cycle. As he told the American House of Representatives Committee on Banking, in 1999: "I'd come to realise we'd never be able to identify irrational exuberance with certainty, much less act on it, until after the fact."

Indeed, in his autobiography Greenspan concluded that (in his opinion) business cycles were inevitable: "the business cycle. . .is not dead. . .Economic and financial shocks will occur. . .The resulting shocks will, as always, be difficult to anticipate".[41]

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[1] Arthur Burns and Wesley Mitchell, *Measuring Business Cycles* (National Bureau of Economic Research, New York, 1946), p.3.

[2] Barrie Dyster and David Meredith, A*ustralia in the International Economy in the Twentieth Century* (Cambridge University Press, Melbourne, 1990), pp.41-49, 123-147.

[3] Arthur Burns and Wesley Mitchell, *Statistical Indicators of Cyclical Revivals* (National Bureau of Economic Research, New York, 1938). Wesley Mitchell had already produced a study entitled *Business Cycles* (University of California Press, Berkeley, California, 1913).

[4] Arthur Burns and Wesley Mitchell, *Measuring Business Cycles*. Arthur Burns subsequently became chair of the Federal Reserve Bank from 1970-1978.

[5] Troy Davig, "Detecting Recessions in the Great Moderation: A Real-Time Analysis" in the *Economic Review,* fourth quarter, 2008, p.8.

[6] Justin Martin, *Greenspan: the Man behind the Money* (Perseus Publishing, Cambridge, Massachusetts, 2000), p.194 Alan Greenspan, a student of Arthur Burns, was chair of the American Federal Reserve from 1987 to 2006). Troy Davig has pointed out that, on "July 17, 2003. . .[the] NBER announced that a trough occurred in November of 2001. The announcement, coming roughly 20 months after the trough, reflects the general purpose of the Business Cycle Dating Committee, which is to compile an accurate historical record of business cycle fluctuations. The committee does not try to make a timely call regarding the beginning or end of a recession." See Davig, op.cit., p.10.

[7] Arthur Burns and Wesley Mitchell, *Measuring Business Cycles*, p.78.

[8] National Bureau of Economic Research, *Business Cycles and Contractions* at https://nber15.nber.org/cycles3.html

[9] Ernst Boehm and Peter Summers, *Analysing and Forecasting Business Cycles with the Aid of Economic Indicators* (Melbourne Institute of Applied Economic and Social Research, University of Melbourne, 1999), p.7.

[10] Stephen Salsbury and Kay Sweeney, *The Bull, the Bear and the Kangaroo: the History of the Sydney Stock Exchange* (Allen and Unwin, Sydney, 1988), pp.350-354).

[11] Trevor Sykes*, Two Centuries of Panic: A History of Corporate Collapses in Australia* (Allen and Unwin, Sydney, 1988), p.434.

[12] ibid., p.467.

[13] Edna Carew, *Westpac: the Bank that Broke the Bank* (Doubleday, Sydney, 1997), pp.238,33.

[14] Boehm and Summers, ibid.

[15] Gene Callahan and Roger Garrison, "Does Austrian Business Cycle Theory Help Explain the Dot-Com Boom and Bust?" in the *Quarterly Journal of Austrian Economics*, vol.6, no.2, p.78; Zhu Wang, *Technological Innovation and Market Turbulence: the Dot-com Experience* (Federal Reserve Bank of Kansas City, 2006), p.2.

[16] "Historical Financial Market Data", Wren Research at www,wrenresearch.com.au.

[17] Martin, op.cit., p.246.

[18] Wang, op.cit., pp.2-3.

[19] Between January 2001, and October 2002, the Federal Reserve (under Alan Greenspan's leadership) cut the federal funds rate from 6% to 1.25%. See Alan Greenspan, *The Age of Turbulence: Adventures in a New World* (Penguin Books, New York, 2007), pp.213, 228.

[20] Edward Gramlich, "Booms and Busts: the Case of the Subprime Mortgages" in the *Economic Review*, fourth quarter 2007, p.106.

[21] Katalina Bianco, *The Subprime Lending Crisis: Causes and Effects of the Mortgage Meltdown* (CCH, Chicago, 2008), p.12.

[22] Gramlich, ibid.

[23] William Gwinner and Anthony Sanders, *The Sub Prime Crisis: Implications for Emerging Markets* (World Bank, Washington DC, 2008), p.5; Bianco, ibid.

[24] Jose Gabriel Palma, "The Revenge of the Market on the Rentiers: Why Neo-Liberal Reports of the End of History Turned Out to be Premature" in the *Cambridge Journal of Economics*, vol.33, no.4, July 2009.

[25] Jared Hojnacki and Richard Shick, "The Subprime Mortgage Lending Collapse: Should We Have Seen it Coming?" in the *Journal of Business and Economics Research*, vol.6, no.12, p.25.

[26] "Historical Financial Market Data", Wren Research at www,wrenresearch.com.au.

[27] Ibid.

[28] James Politi, "Hostile Takeovers Make a Comeback: in the *Financial Times*, 28 November 2007, Corporate Finance, p.1.

[29] Wren Research.

[30] Saul Eslake, *Economic Update: Australian House Prices – Unlikely to Fall* (ANZ Bank, Melbourne, 2008), p.2.

[31] See www.maynereport.com.

[32] National Australian Bank (Group Economics), *Chinese Stimulus and the Iron Ore Market* (National Australia, Melbourne, 2009), p.2.

[33] Wren Research.

[34] David Bell and David Blanchflower, *What Should Be Done about Rising Unemployment in the OECD* (Institute for the Study of Labour, Bonn, 2009), p.21.

[35] Prime Minister of Australia. Media Release. *$42 billion Nation Building and Jobs Plan*. 3 February 2009.

[36] Secretary of the Treasury (Ken Henry), *The Global Financial Crisis and the Road Ahead*, speech delivered to the Australian Institute of Company Directors, Sydney, 23 September 2009, p.7.

[37] Ric Battellino, "Housing and the Economy", remarks to the *6th National Housing Conference*, Melbourne, 25 November 2009; see also Australian Bureau of Statistics, *Australian National Accounts: National Income, Expenditure and Production*, ABS Catalogue 5206.0

(Australian Bureau of Statistics, Canberra, 2009), p.1.

[38] Boehm and Summers, ibid.

[39] *Economic Report of the President* (United States Government Printing Office, Washington DC, 2009), p.31.

[40] It should be remembered that it was another official of the RBA (Malcolm Edey, assistant governor, economic) who declared in March 2007 that, "The short-term outlook for the world economy looks like it will be favourable to further growth in Australia." See Malcolm Edey, "Australia in the Global Economy", address to the *Australia and Japan Economic Outlook Conference 2007*, Sydney, 16 March 2007.

[41] Greenspan, op.cit., pp.174-179, 200-202, 490-491.