Business Cycles Facts

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From the long-run to the short-run

- The classical model of long run output determination.
  1. Markets clear
  2. Prices are flexible
  3. Money is neutral

- Recall that we broke the classical model up into three main markets.
  1. the goods market
  2. the labor market
  3. the money market

Why care about the short-run?

- Recall Robert Lucas’ quote:
  
  Is there some action a government of India could take that would lead the Indian economy to grow like Indonesia’s or Egypt’s? If so, what exactly? If not, what is it about the ‘nature of India’ that makes it so? The consequences from human welfare involved in questions like these are simply staggering; once one starts to think about them, it is hard to think about anything else.

- So why should we think about anything else besides growth and the long-run?

  This long run is a misleading guide to current affairs. In the long run we are all dead.

  *John Maynard Keynes*

The Cost of Business Cycles

For every one-percent increase in the U.S. unemployment rate

- 920 more people commit suicide
- 650 more people commit homicide
- 4,000 are admitted to state mental hospitals
- 3,300 are sent to state prisons.
- 500 more die from heart and kidney disease and cirrhosis of the liver
- there are 20,000 more heart attacks
- and 37,000 more deaths


Recessions are particularly tough on those at the margins of our society.
Defining the business cycle

- So what is the business cycle?
- Burns and Mitchell (1946) – emphasized that business cycles are fluctuations of aggregate economic activity – not a specific variable. Business cycles are distinguished by the fact that different macroeconomic variables move together over time. So the business cycle is not just the ups and downs of GDP. It is the irregular fluctuations of a whole bunch of series that move together.
- And while not all business cycles are identical in length or severity, they do share common features that lead us to seek a common explanation.
- But first we have to define some terms ...

- trough – time when aggregate economic activity stops falling and starts rising.
- peak – time when aggregate economic activity stops increasing and begins to decline.
- contraction – period of time when aggregate economic activity is falling.
- recession – a period of declining economic activity. The press usually defines a recession as a period of at least two consecutive quarters of declines in GDP, but it is more complicated than that.
- boom or expansion – period of time when aggregate economic activity is rising.
- business cycle – a decline in economic activity to a low point, followed by a recovery of activity to a high point. A complete business cycle can be measured peak-to-peak or trough-to-trough.
- turning point – peaks or troughs in the business cycle.

Directions

- pro-cyclical – tending to move in the same direction as aggregate economic activity during the business cycle.
- countercyclical – tending to move in the opposite direction of aggregate economic activity over the business cycle.

Timing

- leading variable – variable with peaks and troughs that tend to occur earlier than the corresponding peaks and troughs in aggregate economic activity.
- coincident variable – variable with peaks and troughs that tend to occur at about the same time as the corresponding aggregate economic activity peaks and troughs.
- lagging variable – a variable with peaks and troughs that tend to occur later than the corresponding peaks and troughs in aggregate economic activity.

Burns and Mitchell went on the emphasis that ...

- Economic variables show comovements – they have regular and predictable patterns of behavior over the course of the business cycle.
- The business cycle is recurrent, but not periodic:
  - recurrent means the pattern of contraction-trough-expansion-peak occurs again and again.
  - Not being periodic means that it doesn’t occur at regular, fixed intervals.
- The business cycle is persistent
  - Declines are followed by further declines; growth is followed by more growth.
  - Because of persistence, forecasting turning points is quite important.
**Business Cycle Facts**

1. Output movements tend to be correlated across sectors of the economy. It is not the case that the business cycle is an accidental by-product of unconnected cycles in different industries.

2. Consumption of nondurables and services varies less than output, whereas consumption of durables varies more than output.

3. Investment, and more particularly inventory investment, varies more than output.

4. Hours worked are pro-cyclical and vary about as much as output. Part of this variation in employment and part is the result of variation in hours per worker, both of which are pro-cyclical.

5. The average productivity of labor ($Y/N$) is pro-cyclical and varies less than output.

6. Nominal money is pro-cyclical.

7. Prices are pro-cyclical; but then again, maybe they are counter-cyclical ... 

**A History of the Business Cycle in the United States**

- The responsibility of for judging whether the economy is expanding or contracting lies with Business Cycle Dating Committee of the National Bureau of Economic Research (NBER).

- pre-WWI period

- The Great Depression and WWII

- Post-World War II business cycles

- Have American business cycles become less severe?

**A preview of upcoming attractions: business cycle analysis**

Though there is absolutely no theoretical reason to anticipate it, one is led by the facts to conclude that, with respect to the qualitative behavior of comovements among series [that is, economic variables], business cycles are alike. To theoretically inclined economists, this conclusion should be attractive and challenging, for it suggests the possibility of a unified explanation of business cycles, grounded in the general laws governing market economies, rather than in political institutions or institutional characteristics specific to particular countries or periods.

*Robert Lucas*

- If we want to understand why business cycles occur, there should be a story that fits all. Because in many ways, all business cycles are alike.

**What explains business cycle fluctuations?**

1. Two major components of business cycle theories
   - (a) A description of the shocks
   - (b) A model of how the economy responds to shocks

2. Two major business cycle theories
   - (a) Classical theory
   - (b) Keynesian theory