Cycle Patterns, Impulses, and Mechanisms

The AS-AD Model

All business cycle theories can be described in terms of the AS-AD model.

Business cycle theories can be divided into two types:

- Aggregate demand theories
- Real business cycle theory
Aggregate Demand Theories of the Business Cycle

Three types of aggregate demand theories have been proposed:
- Keynesian
- Monetarist
- Rational expectations

Last nature future
Past nature future
Past nature future
The Keynesian Theory of the business cycle regarding fluctuations as the main source of business cycle.

The Keynesian Theory

Business Cycle

Agregate Demand Theories of the
Aggregate Demand Theories of the Business Cycle

Keynesian Impulse

The impulse in the Keynesian theory is expected future sales and expected future profits.

A change in expected future sales and expected future profits changes investment. All investment is autonomous.

Keynes described these expectations as “animal spirits,” which means that because such expectations are hard to form, they may change radically in response to a small bit of new information.

\[ \text{Chap. 10/ expenditure multipliers} \]

\[ \Delta GDP^e = \frac{1}{1 - m.p.c} \]

\[ \text{Ch2-26/} \]

\[ \text{AD}_0, \text{AD}_1, \text{AS} \]
Aggregate Demand Theories of the Business Cycle

Monetarist Theory

The **monetarist theory of the business cycle** regards fluctuations in the quantity of money as the main source of business cycle fluctuations in economic activity.

Monetarist Impulse

The initial impulse is the growth rate of the money supply.

$\Delta GDP = f(C, \Delta T, \Delta C; \Delta X; \Delta M; \Delta N, \Delta \bar{X}; \Delta \bar{M},)\,$

Questions:

- Is $\Delta M$ a dominant source?
- Is $\Delta M$ an independent source? ($G-T=\Delta M$)
- Is $\Delta M$ predictable.
Aggregate Demand Theories of the Business Cycle

Monetarist Cycle Mechanism

1. The mechanism is a change in the monetary growth rate that shifts the \( AD \) curve combined with an upward sloping SAS curve.

2. An increase in the growth rate of the money supply lowers interest rates and the foreign exchange rate, both of which have multiplier effects that shift the \( AD \) curve rightward.

A decrease in the monetary growth rate has opposite effects.
Aggregate Demand Theories of the Business Cycle

Money wages are only temporarily sticky, so an increase in aggregate demand eventually raises money wage rates and a decrease in aggregate demand eventually lowers money wage rates.

Rightward shifts in the AD curve cause an initial expansion in real GDP, but money wages rise and the expansion ends as GDP returns to potential GDP.

Decreases in AD are similar: they cause an initial decrease in real GDP, but money wages fall and the recession ends as GDP returns to potential GDP.
Chapter 6 / monetarist view

Diagram showing the relationship between price (P), SAS (S), AD (AO), and RBDP (Real Balance Effect) with points representing equilibrium at e0, e1, and e2.
Aggregate Demand Theories of the Business Cycle

The monetarist theory is like a rocking horse, in that an initial force is required to set it in motion, but once started the cycle automatically moves to the next phase.

Exercise: do for all do for all do for all I(i) do for all C(i) etc.
Long Run Trend

Short Run Trend

1970: Short Run Trend

1990: Short Run Trend

w/p

Short Run Trend

Long Run Trend

1970
1990

Time
Aggregate Demand Theories of the Business Cycle

Figure 15.3 illustrates a monetarist business cycle.

Part (a) shows a recession

**Question:**
- Have nominal wages ever decreased in the U.S.?
- Have real wages ever decreased?
Aggregate Demand Theories of the Business Cycle

Part (b) shows an expansion phase.

- Friedman and Phelps
  University of Chicago