Definition: Business Cycles

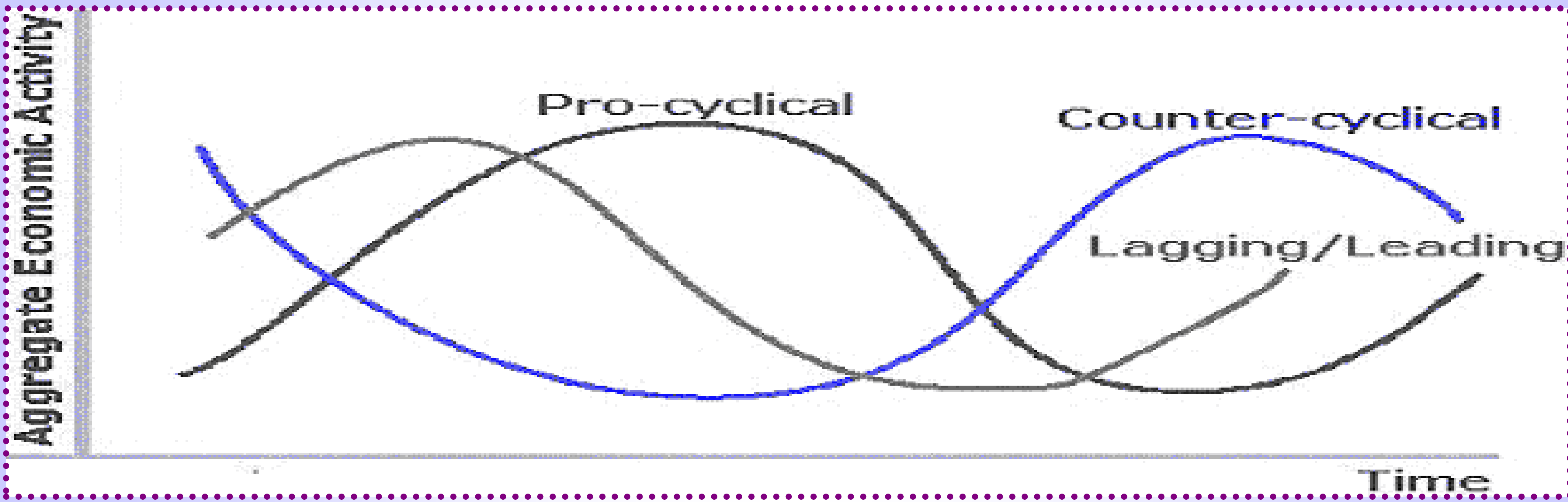
- **Business cycles or fluctuations are swings in total national output, income, and employment, marked by widespread expansion or contraction in many sectors of the economy.**
- **Business Cycles are a type of fluctuation found in the *aggregate economic activity* of nations that organize their work mainly in business enterprises. A cycle consists of *expansions* occurring *at about the same time in many economic activities*, followed by similarly general recessions, and revivals which merge into the expansion phase of the next cycle; this sequence of changes is *recurrent but not periodic*; in duration business cycles vary from more than one year to ten or twelve years.**

NBER, USA

Main Features:

1. **Aggregate Activity**
2. **Expansions/Contractions**
3. **Co-movement, Recurrent/Not Periodic**
4. **Persistence**

Structure of Business Cycles



Cyclical Behavior of Economic Variables

- **Structure:**
  - ✓ *Expansion (Boom);*
  - ✓ *Peak;*
  - ✓ *Contraction (Recession);*
  - ✓ *Trough.*

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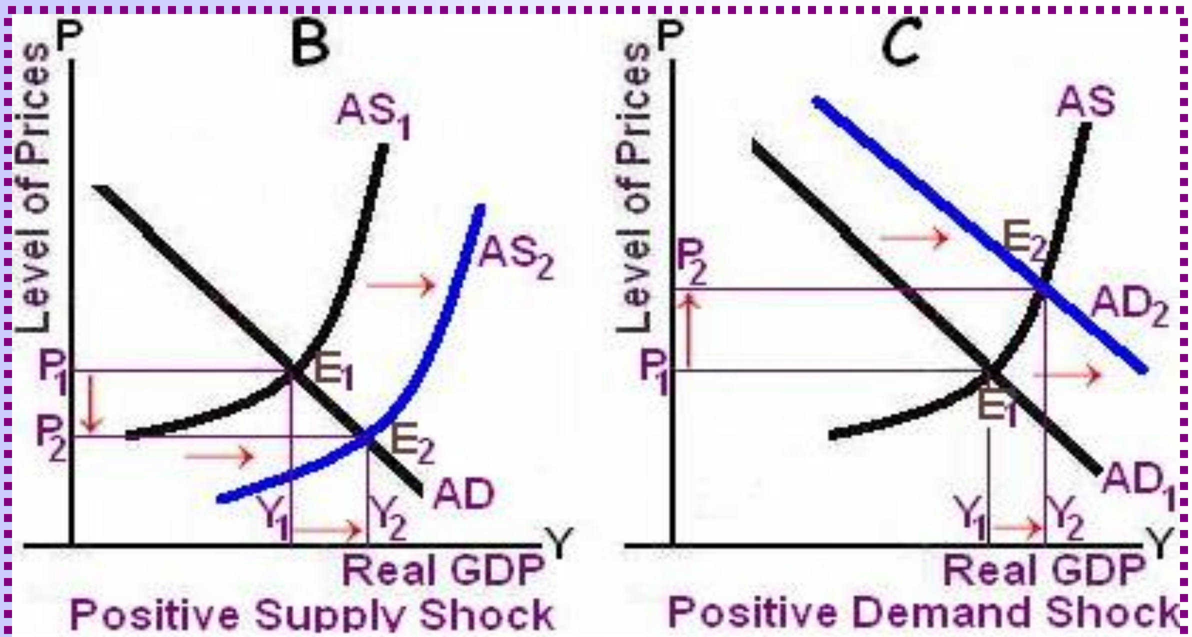
- **Direction:**
  - ✓ *Pro-cyclical (same direction)*
  - ✓ *Counter-cyclical (opposite direction)*
  - ✓ *A-cyclical (no clear pattern)*
- **Timing:**
  - ✓ *Leading (P/T before BC)*
  - ✓ *Coincident (P/T same time as BC)*
  - ✓ *Lagging (P/T later than BC)*

Variable	***Direction***	***Timing***
Consumption	Pro-cyclical	Coincident
Business Fixed Investment	Pro-cyclical	Coincident
Residential Investment	Pro-cyclical	Leading
Real Wage	Pro-cyclical	——
Labor Productivity	Pro-cyclical	Leading
Employment	Pro-cyclical	Coincident
Unemployment	Countercyclical	——
Inflation	Pro-cyclical	Lagging
Money Growth	Pro-cyclical	Leading
Stock Prices	Pro-cyclical	Leading
Interest Rates (nominal)	Pro-cyclical	Lagging
Interest Rates (real)	A-cyclical	——

Business-Cycle Theories

- Business-cycle theories differ in their emphasis on ***exogenous*** (***external***) and ***endogenous*** (***internal***) factors. Importance is often attached to fluctuations in such exogenous factors as technology, elections, wars, exchange-rate movements, or oil-price shocks.
- Most theories emphasize that exogenous shocks interact with internal mechanisms, through shocks in AD and/or AS, such as the ***multiplier*** and ***investment-demand*** shifts, to produce cyclical behavior. Business-cycle turmoils vary in size, scale & length across times and nations.

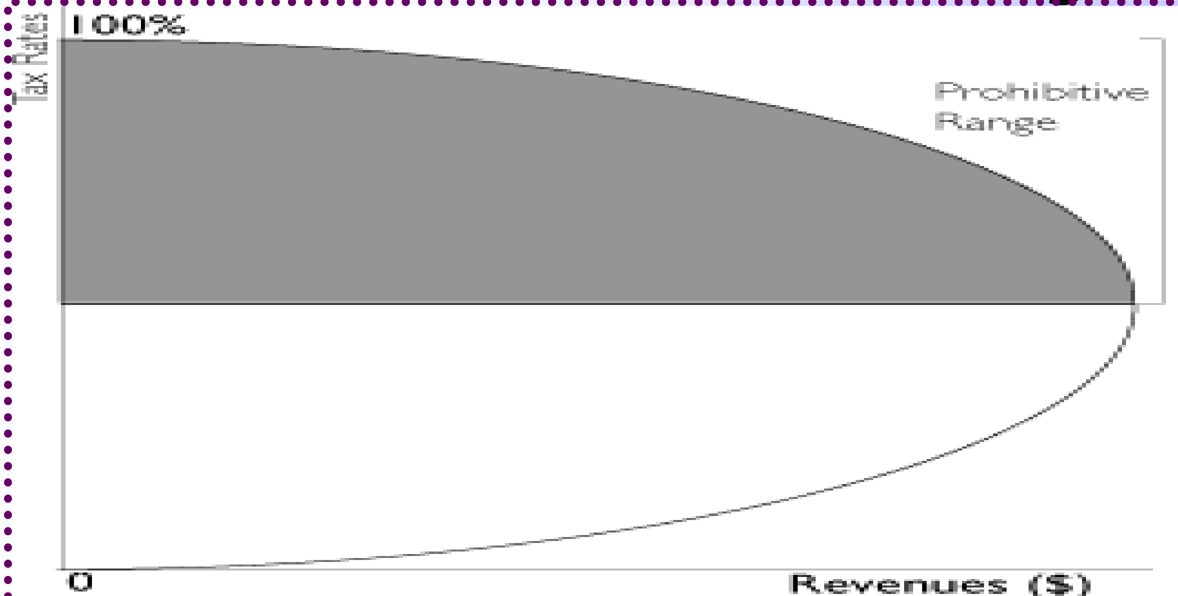


- **Government Monetary/Fiscal Policies:**
  - ✓ **⇧MS → ⇩interest rates → ⇧C, I**
  - ✓ **⇧G → ⇩S; ⇩Tx,⇧Tr → ⇧C;⇩Tx→⇧I**

- **External (exogenous):**
  - ✓ **⇧Foreign output (⇧NX)**
  - ✓ **⇧Asset values (⇧C, ⇧I)**
  - ✓ **⇧Tech. Advance (⇧I)**
  - ✓ **Other: political, social, etc.**
- **Internal (endogenous) - AD/AS (*see determinants of AD/AS, topic 3*):**
  - ✓ **Monetary**
  - ✓ **Multiplier-accelerator model**
  - ✓ **Political**
  - ✓ **Equilibrium business cycle**
  - ✓ **Real-business cycle**
  - ✓ **Other AS shocks**

The Laffert Curve

Tax Rate, %	Market Share of Withdrawing Businesses, %	Loss of Output, $	Remaining Output, $	Tax Revenues, $
0%	0%	0	1,000	0
10%	5%	50	950	95
20%	10%	100	900	180
30%	25%	250	750	225
40%	45%	450	550	220
50%	60%	600	400	200
60%	70%	700	300	180
70%	85%	850	150	105
80%	90%	900	100	80
90%	100%	1000	0	0



The Laffert curve describes the relationship between tax rates and tax revenues. According to its concept, changes in tax rates have *two effects on revenues*: the *arithmetic effect* (higher taxes - higher government revenues) and the *economic effect* (higher taxes - less businesses stay in the market). The arithmetic effect always works in the opposite direction from the economic effect.

There is always one tax rate that collects maximum revenues.

Key Concepts

- ✓ ***business cycles – definition, main features***
- ✓ ***structure and phases of business cycles***
- ✓ ***cyclical behavior of economic variables – by direction and by timing***
- ✓ ***business cycle theories***
- ✓ ***government policies: fiscal and monetary***
- ✓ ***the Laffert curve***

Course Web Support:

- http://www.skylinecollege.info/mosesov/macro/
- http:// www.mhhe.com/economics/samuelson17/students/Ch23.mhtml