HS 101 - S2

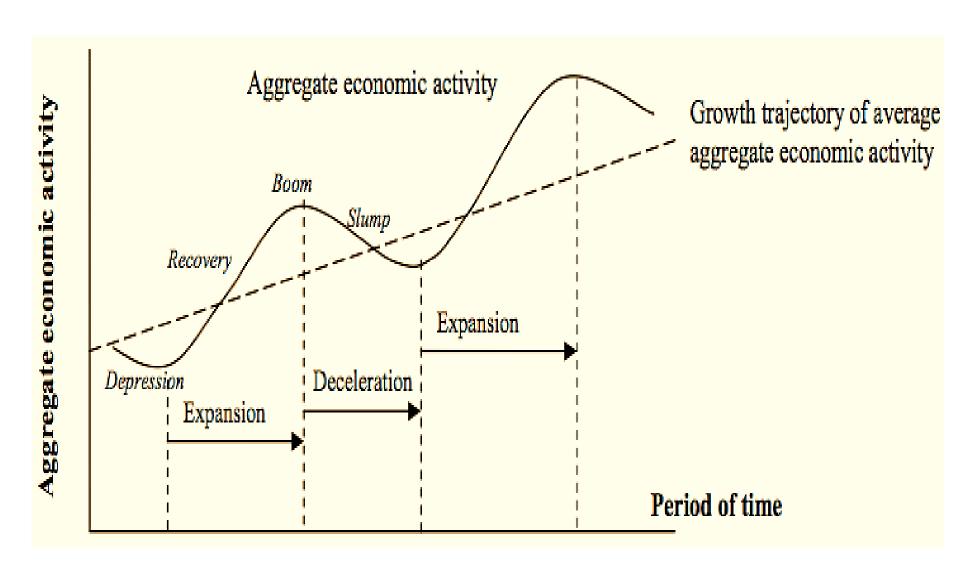
1st Macroeconomics Quiz

MONDAY, 9th November, 2020

Time: 10 AM - 10.35 AM

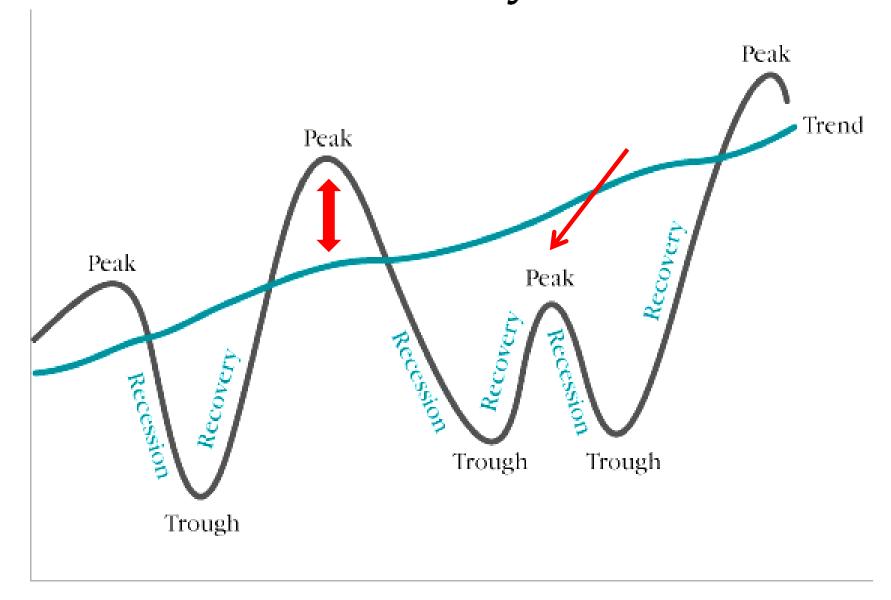
through the SAFE app

Note: No Re-exam/ Supplementary Quiz for the Absentees



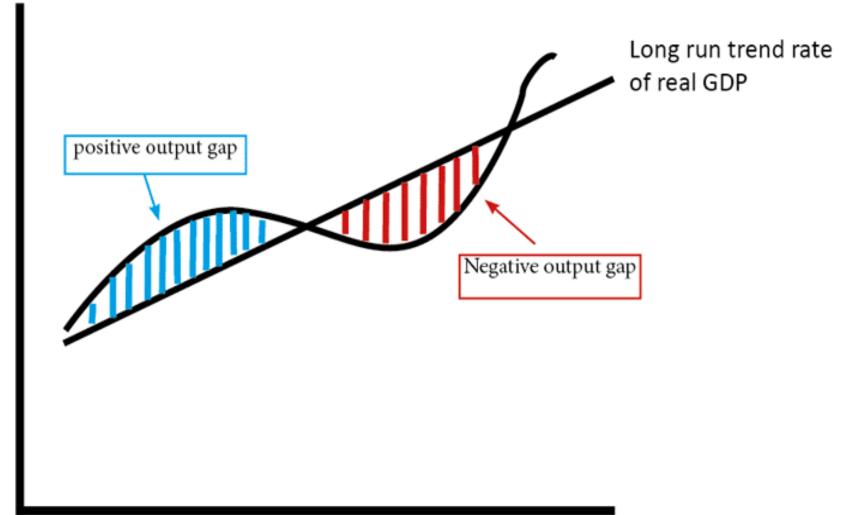
Output

Business Cycle



Time

Real GDP



Time

Labor Employment and Real GDP

Production occurs when prime economic resources — labor, capital, and land are employed. Hence, the greater the employment of labor the higher the level of real GDP.

Rate of Growth in Real GDP and Rate of Unemployment

Okun's Law: An annual 2.5% increase in the rate of *real* GDP growth above the trend growth rate results in a 1% decrease in the rate of unemployment.

Okun's Law [1962]

$$\frac{Y-Y^{P}}{Y^{P}} = \alpha(U-U^{N}), \ \alpha < 0$$

 Y^P is potential output and

 U^N is natural rate of unemployment

In 1962, Arthur Okun reported an *empirical regularity*: a negative short-run relationship between unemployment and output.

Manufacturing Sector Growth Remains Sluggish, Mining Also Hit

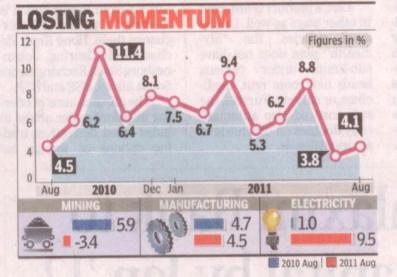
Industrial output slows down to 4.1%

TIMES NEWS NETWORK

New Delhi: The country's industrial output rose below expectations in August as growth in the key manufacturing sector remained sluggish and the mining sector declined due to policy delays, while increase in interest rates hurt expansion.

Data released by the Central Statistics Office (CSO) on Wednesday showed industrial output in August rose 4.1% compared to 4.5% in the same year-ago period. The CSO revised upwards the July data to 3.8% from the previous reading of 3.3% and the May number to 6.2% from 5.9%. Industrial output in the April-August period rose 5.6% compared to 8.7% growth in the same year ago period.

Finance minister Pranab Mukherjee said the data was "not encouraging" and it may affect economic growth in the



July-September quarter: GDP growth in the April-June quarter slowed to 7.7%. Economists said the data showed clear signs of a slowdown.

"The August IIP pointed to signs of moderation in the economy with growth at 4.1% against consensus expectations of 4.7%. Intermediate goods and consumer durables have continued to see weak growth. Seen in conjunction with other indicators like the manufacturing PMI and the trend in excise duty collections, industrial production is clearly slowing," said Indranil Pan, chief economist at Kotak Mahindra Bank.

The manufacturing sector grew 4.5% in August

compared to 4.7% in the same month a year ago while electricity rose 9.5% compared to 1% growth in August 2010. The mining sector posted a disappointing performance and declined by 3.4%.

The capital goods sector, a key gauge of industrial activity, rose 3.9% in August compared 4.7% in August 2010, while consumer goods grew 3.7% compared to 4.6% in the same year ago period. Consumer durables also remained soft and grew at 4.6% in August, slower than 8.1% in August 2010.

Earlier this month, a survey had showed that the country's manufacturing sector was under stress and that segment of the economy had inched towards contraction in September. The HSBC Purchasing Managers' Index (PMI) — a headline index designed to measure the overall health of the manufacturing

sector—posted 50.4 in September, down from 52.6 in August. The 50-point mark separates contraction from growth.

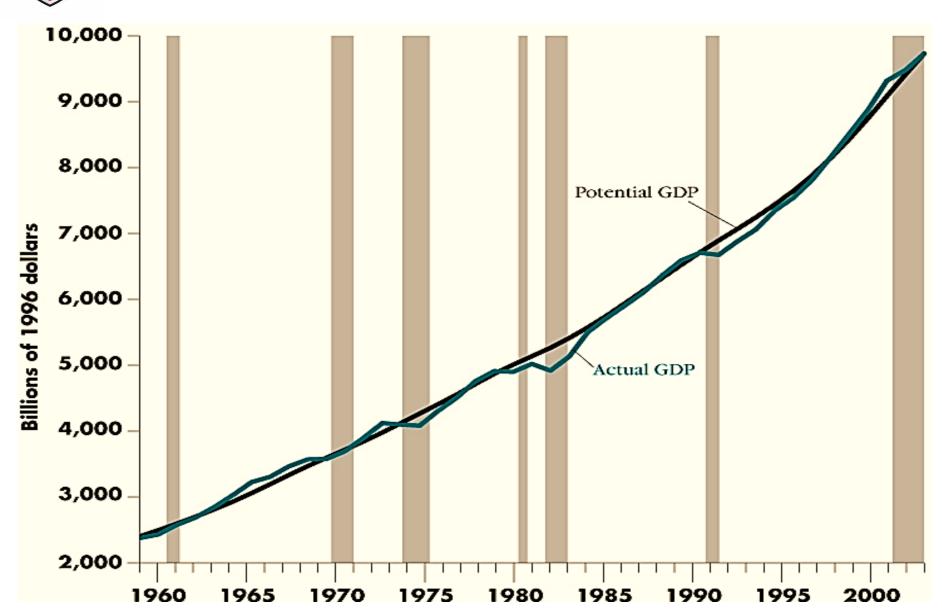
Industry groups, reeling under the impact of the 12 interest rate increases since March 2010, have called for a halt to rate hikes, saying the industrial slowdown was a serious concern.

"The dismal performance of IIP in August is a matter of great concern to industry. After a remarkable recovery from the global crisis in the last two years, the Indian economy is again facing critical challenges," said CII president B Muthuraman.

"We need to see strong measures from the government to revive investments in large projects which have been stalled due to various bottlenecks. CII also urges the RBI to stop raising interest rates in order to signal its concern on growth," he said.



Actual & Potential Output

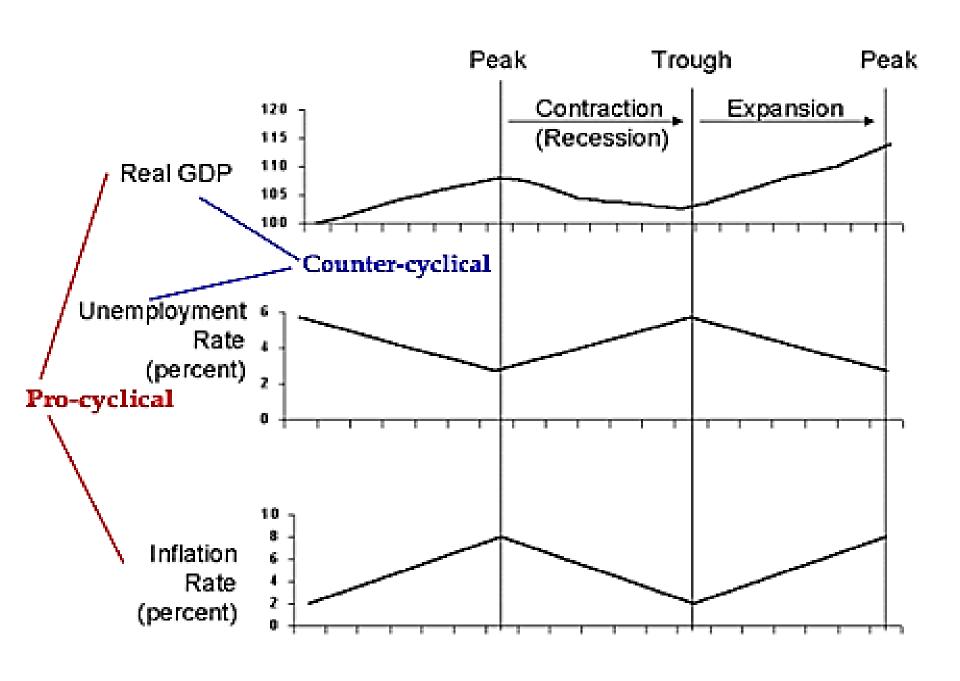


Business Cycle Chronology for India

Dates of Peaks and Troughs		Duration (in months)	
Trough	Peak	Contraction (peak to trough)	Expansion (trough to peak)
	November 1964		
November 1965	April 1966	12	5
April 1967	June 1972	12	62
May 1973	November 1973	11	6
February 1975	April 1979	15	50
March 1980	March 1991	11	132
September 1991	May 1996	6	56
November 1996		6	
Average (months)		10.4	51.8
Median (months)		11	53
Median (months) Standard Deviation (months)		3.3	46.6

Table 2
Growth Rate Cycle Chronology for India

Dates of Peaks and Troughs		Duration (in months)	
Trough	Peak	Slowdowns (peak to trough)	Speedups (trough to peak)
	September 1960		
July 1961	February 1962	10	7
November 1962	May 1964	9	18
November 1965	April 1966	18	5
March 1967	April 1969	11	25
February 1974	February 1976	58	24
September 1977	May 1978	19	8
December 1979	October 1980	19	10
February 1983	August 1984	28	18
September 1985	October 1986	13	13
December 1987	June 1988	14	6
May 1989	March 1990	11	10
September 1991	April 1992	18	7
April 1993	April 1995	12	24
November 1996	September 1997	19	10
October 1998	December 1999	13	14
September 2001	July 2004	21	34
erage (months)		18.3	14.6
dian (months)		16	11.5
ndard Deviation (months)		11.7	8.5



Causes of Business Cycle

• changes in capital expenditures;

• innovation and imitation;

• credit and loan policies of commercial banks;

• external (exogenous) shocks.