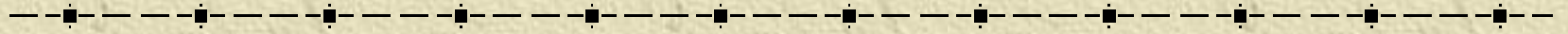

BUSINESS CYCLES

Aggregate Economic
Activity



Agenda



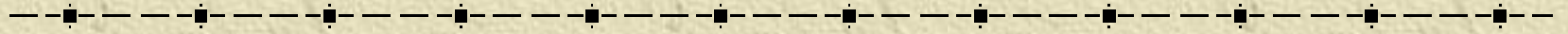
1. Business Cycles (BC) – background
2. BC - basic definitions
3. Economic theories on BC
4. Historical data on BC
5. Business Cycles – practice test



1. Business Cycles – background



Background



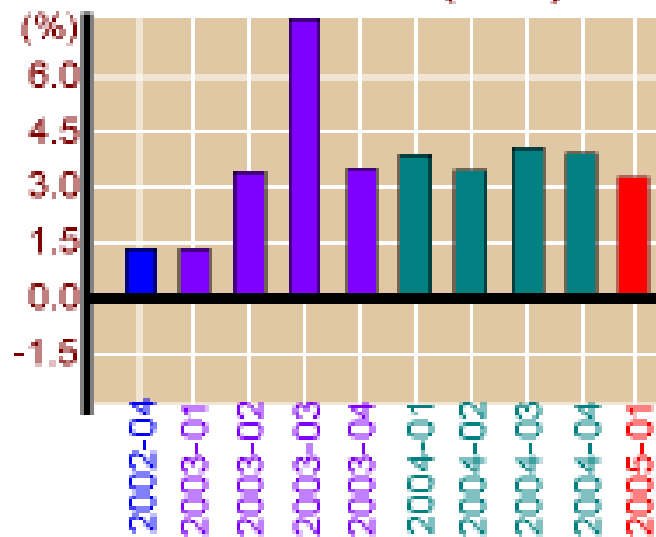
A free market economy does not grow at a constant rate. It goes through a series of booms and busts called the business cycle.

<http://www.cssd.ab.ca>



Background

Real GDP Growth (U.S.)



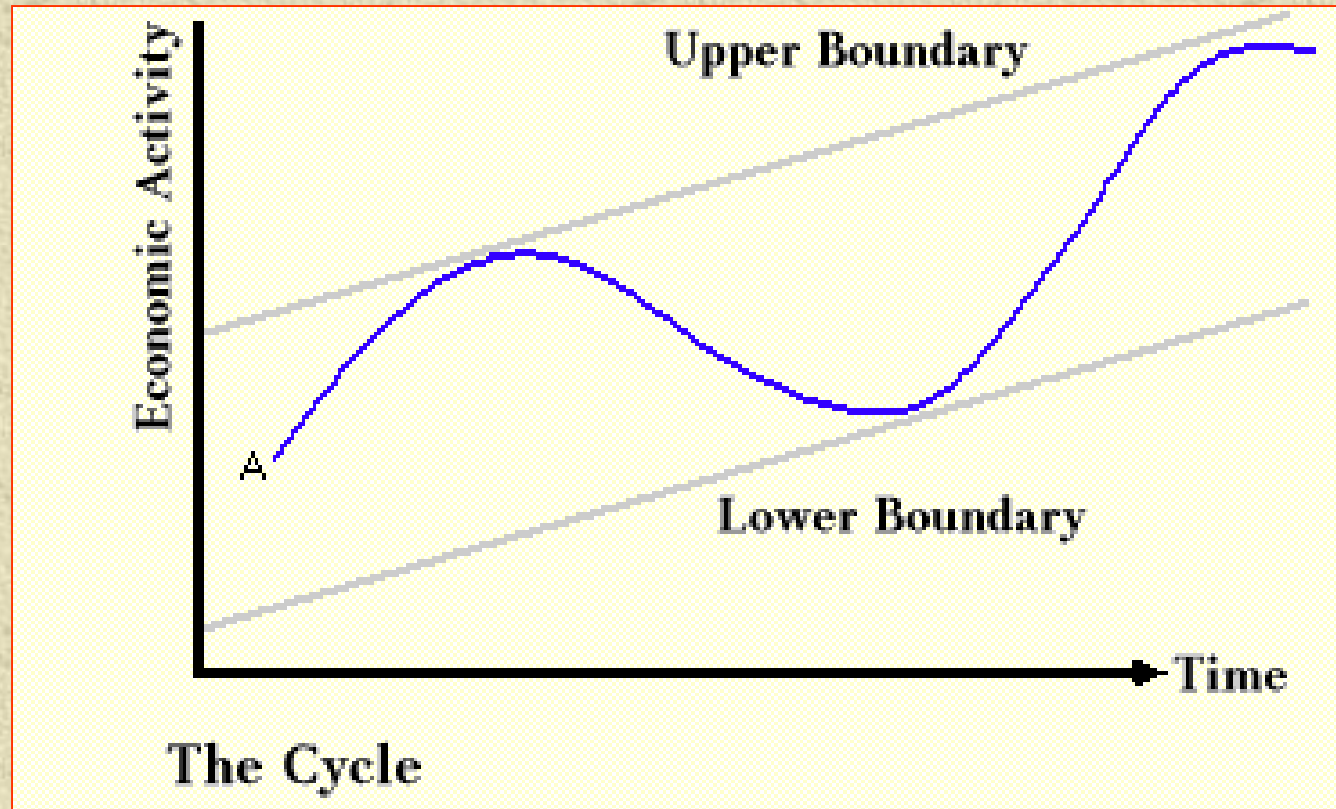
2005-1Q (Prelim): 3.1%

data source: money.cnn.com

<http://www.digitaleconomist.com/>



Background

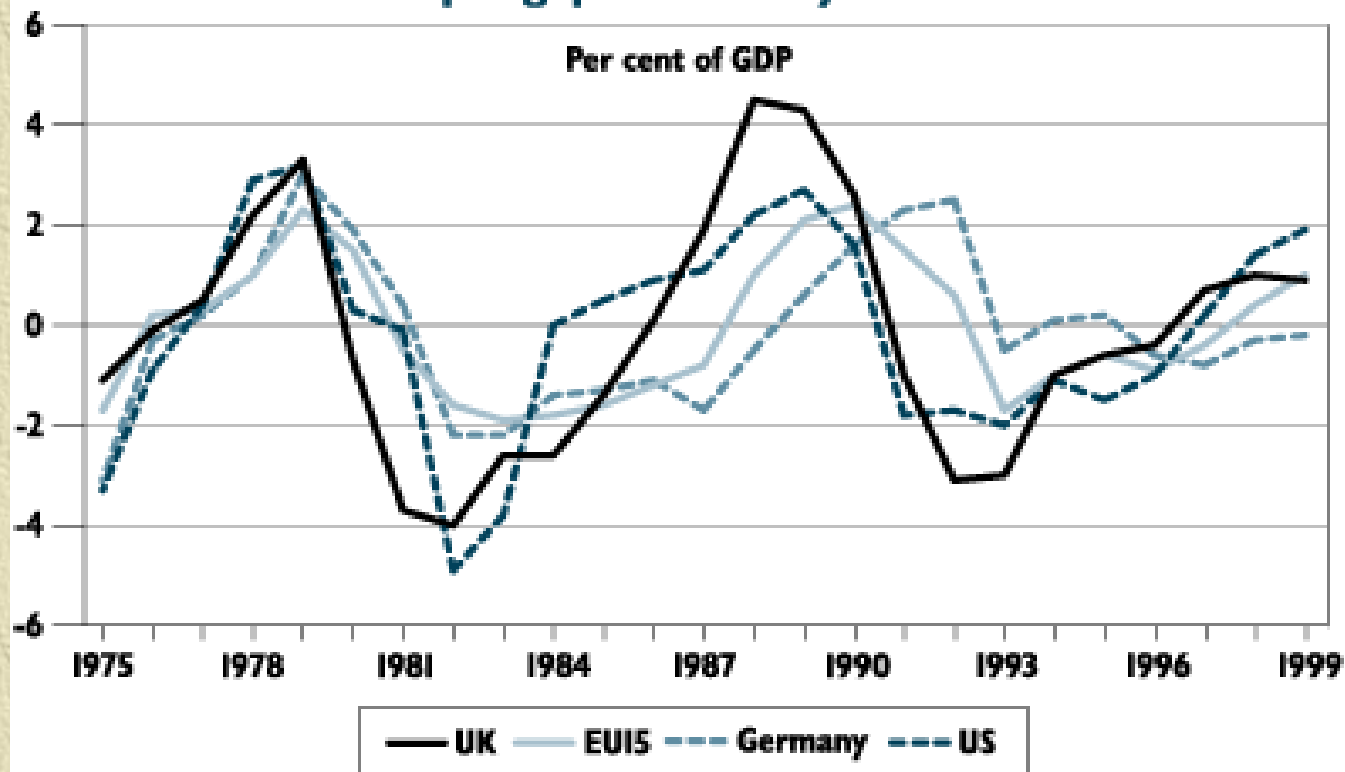


<http://ingrimayne.saintjoe.edu/>



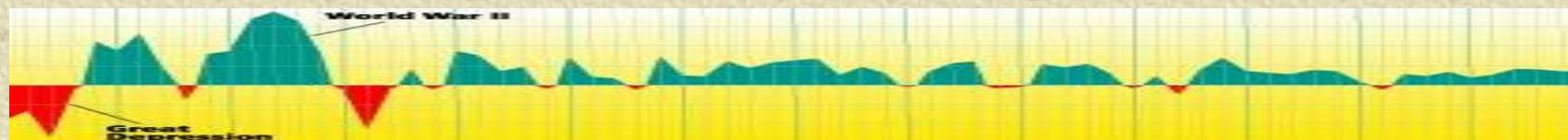
Background

Chart I.9: The output gap business cycle



Note: Business cycles calculated using Hodrick-Prescott filtered annual real GDP data.

Source: EMU study Analysis of European and UK business cycles and shocks.

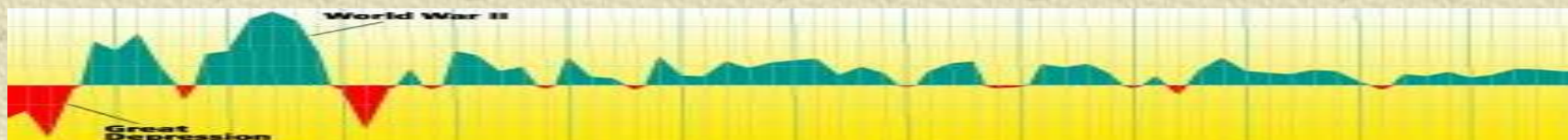


Background

The key questions ?

What makes the economy to fluctuate?

What are the main reasons for that?



2. Business Cycles - basic definitions



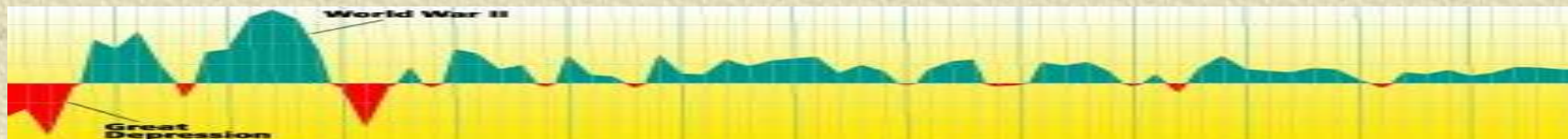
Definitions

Business Cycles – expansions and contractions in the volume of economic activity.

Bronfenbrenner, Sichel, Gardner, Economics, Houghton Mifflin Company Boston, 1987, p. 184

The Business Cycle (economic cycle) refers to the ups and downs seen somewhat simultaneously in most parts of an economy.

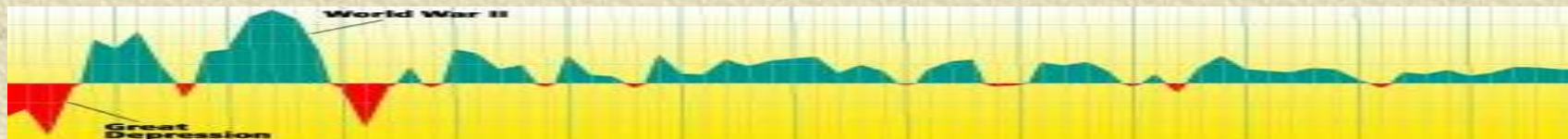
http://en.wikipedia.org/wiki/Business_cycles



Definitions

The Business Cycle refers to the continuous ebb and flow of business activity that occurs around any long-term trend after seasonal patterns have been removed.

Lipsey, Purvis, Steiner, Economics, Harper & Row, New York 1985, p. 552



Definitions

The **Business Cycle** model consists of four stages:

- **Recession**
- **Depression**
- **Recovery**
- **Prosperity (Growth)**



Recession

- ✓ Demand for goods and services is falling down
- ✓ Production and employment is falling as well
- ✓ Households' income is decreasing
- ✓ Profits of business activity are smaller / many bankruptcies
- ✓ No more investment to new venture
- ✓ Stock in warehouses is growing
- ✓ General economic instability
- ✓ Falling Currency
- ✓ Falling consumers' confidence



Depression

- ✓ Demand for goods and services is falling down even further
- ✓ Production and employment is on a minimum level
- ✓ Households' income is low – no credit consumption
- ✓ Profits of business activity are very low / even more bankruptcies
- ✓ All new ventures and investments are very risky
- ✓ Stock in warehouses are empty
- ✓ General economic pessimism
- ✓ Low value of the currency
- ✓ Low consumers' confidence



Trough (bottom)

- ✓ High unemployment – low inflation (deflation)
- ✓ Production on a minimum level of its capacity
- ✓ Profits are very low
- ✓ General economic performance – stable indicators
- ✓ General lack of confidence



Recovery

- ✓ Demand for goods and services is still very low, however there are some signs in the rises of retail sales
- ✓ Production and employment is on a minimum level
- ✓ Households' income is low – some credit consumption
- ✓ Profits of business activity are low / no more bankruptcies
- ✓ All new ventures and investments are becoming very attractive
- ✓ Stock in warehouses is rising
- ✓ Some economic optimism
- ✓ Rising value of the currency
- ✓ Rising level of new investments – new technology



Prosperity / Growth

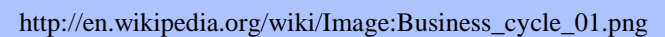
- ✓ Demand for goods and services is rising dramatically – rapidly disappearing stock has to be replaced by only new investments and hiring
- ✓ üHouseholds' income is high – heavy credit spending
- ✓ Profits of business activity are very high
- ✓ All new ventures and investments are becoming even more attractive with low risk level
- ✓ Stock in warehouses is falling and at the certain point - rising
- ✓ Very big general economic optimism
- ✓ Stabilizing value of the currency
- ✓ Increase of demand above supply level generates inflation (increase



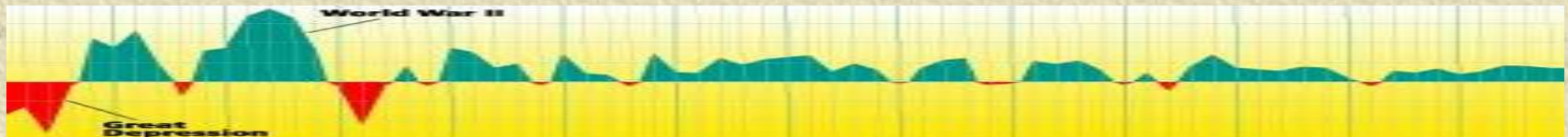
Peak (boom)

- ✓ High degree of utilization of existing capacity
- ✓ Labor shortages – significant rise of wages
- ✓ Shortages of strategic raw materials (oil, steel, energy)
- ✓ Significant raise of inflation
- ✓ **Crash on a stock market !!!**



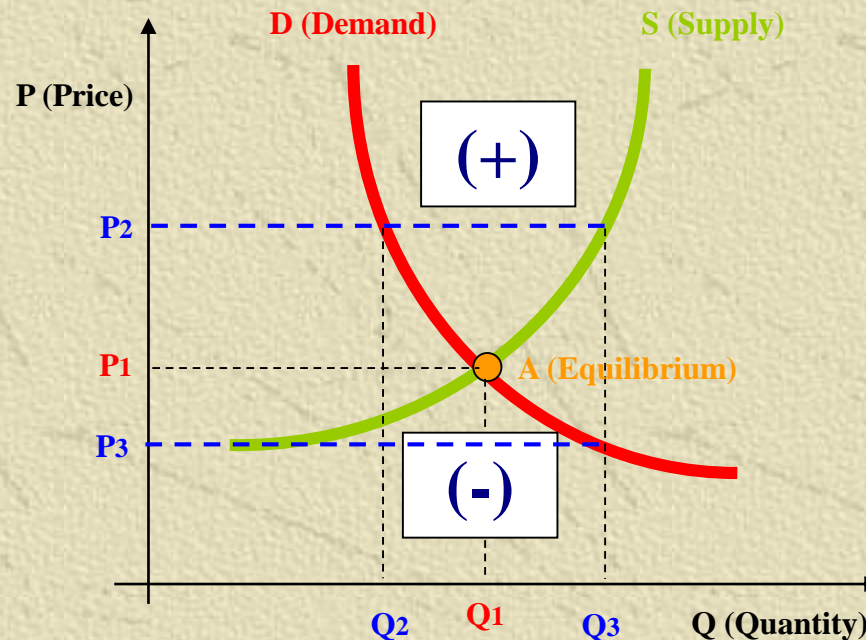


3. Economic theories on Business Cycles



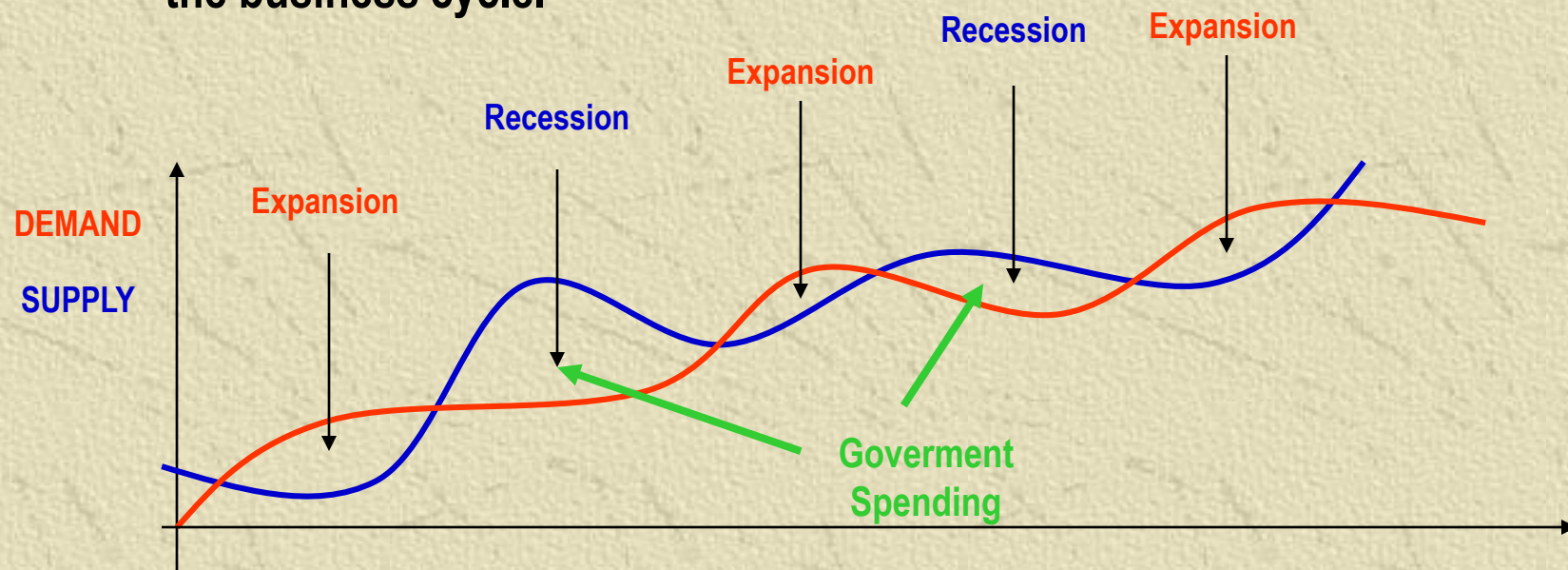
Adam Smith

- ✓ Fluctuations in economic activity is determined by lack of equilibrium on the market



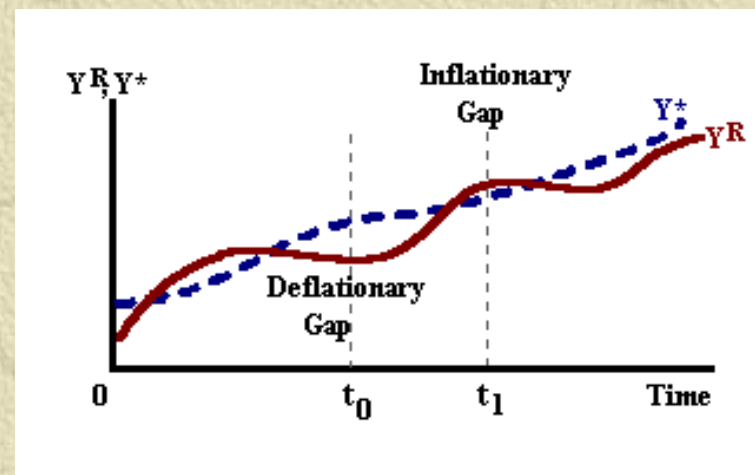
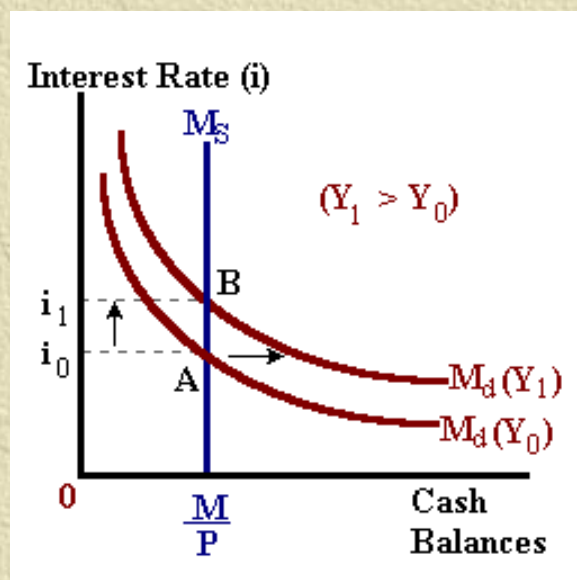
John Maynard Keynes

- ✓ The key factor of recession is related to not **sufficient aggregated demand for goods and services**. That is why the supply side has to slow down to the lower level – below the full potential.
- ✓ An **aggregate demand for goods** as the **driving factor of growth** of the economy is extremely important especially in downturns stages of the business cycle.



Milton Friedman

- ✓ **Monetary theory** focuses on **money supply** and on **inflation** as an effect of the supply of money being larger than the demand for money.
- ✓ If we have more money in the circulation than goods we want to buy– we have INFLATION. If we have not enough money, it leads to RECESSION.



4. Historical data on Business Cycles

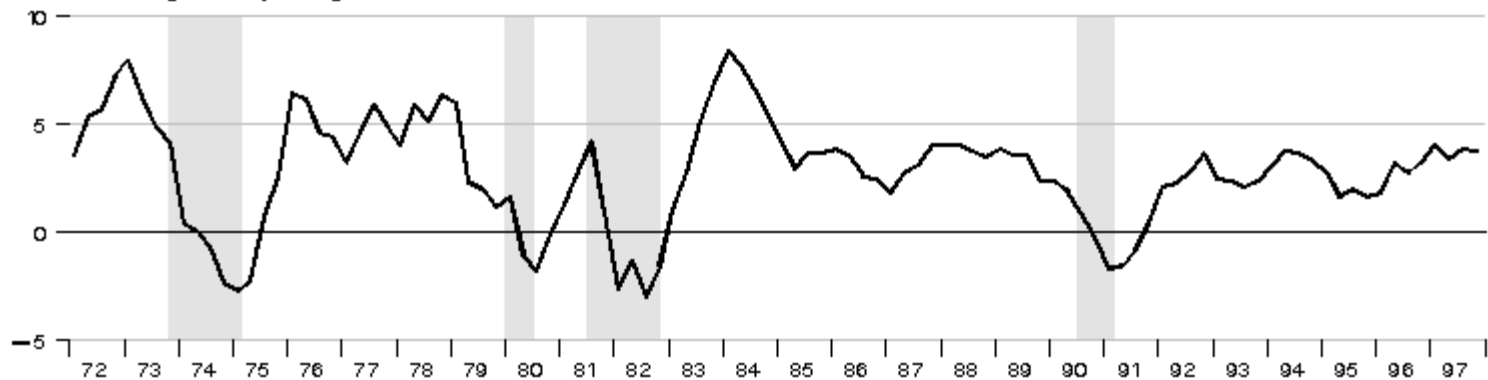


Historical Data

Real Gross Domestic Product

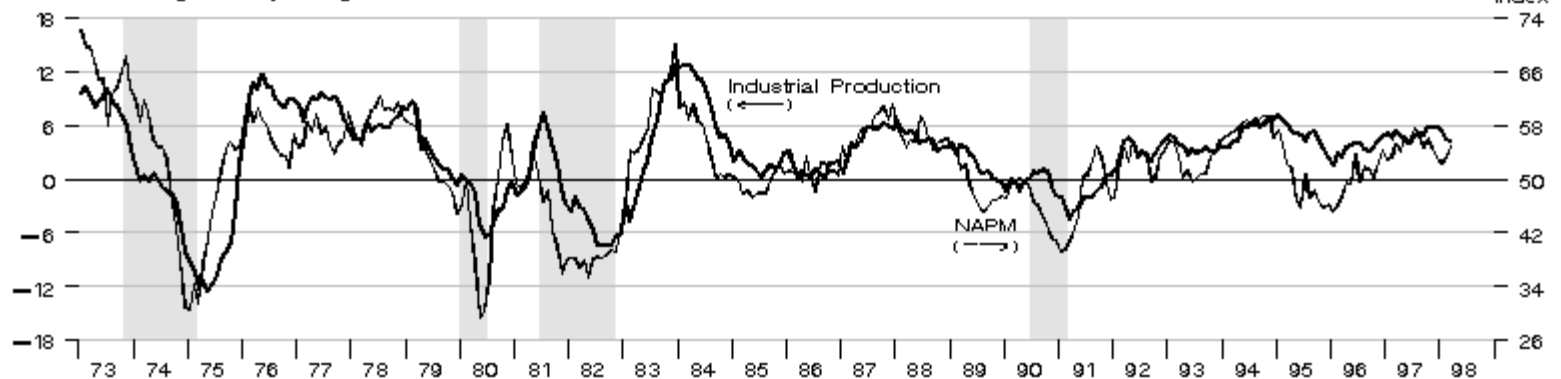
www.angelfire.com

Percent change from year ago



Industrial Production and Purchasing Managers' (NAPM) Indexes

Percent change from year ago

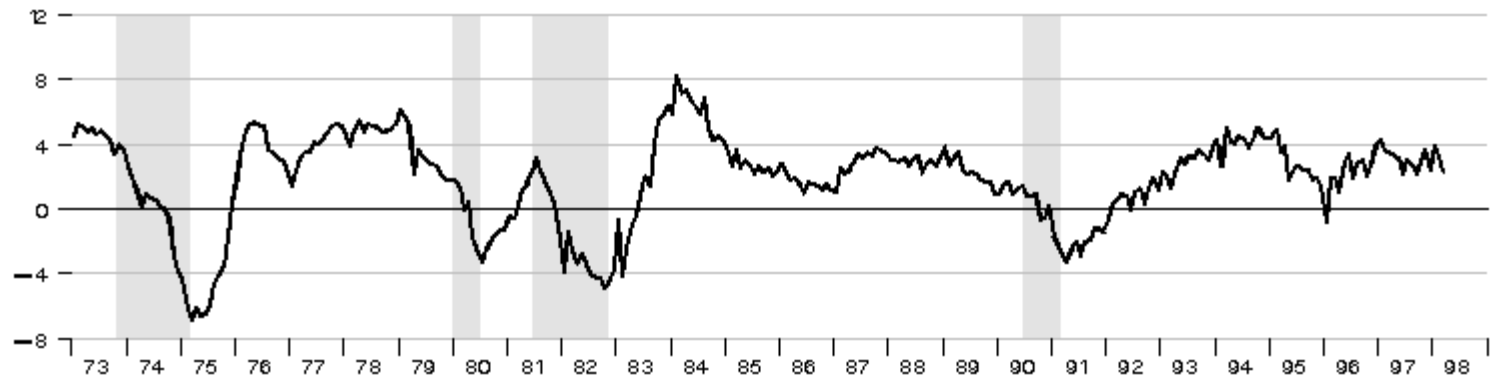


Historical Data

Aggregate Private Nonfarm Hours

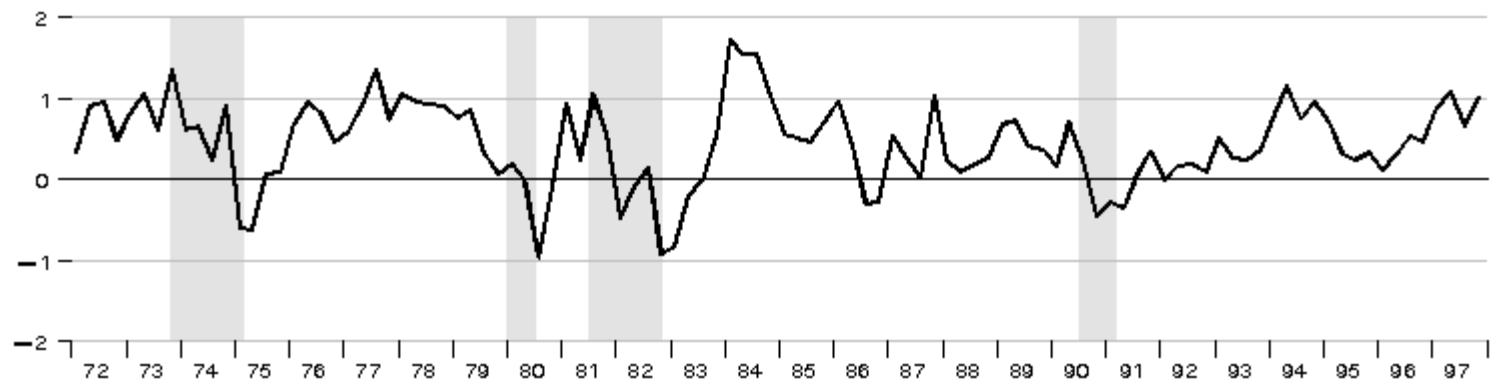
www.angelfire.com

Percent change from year ago

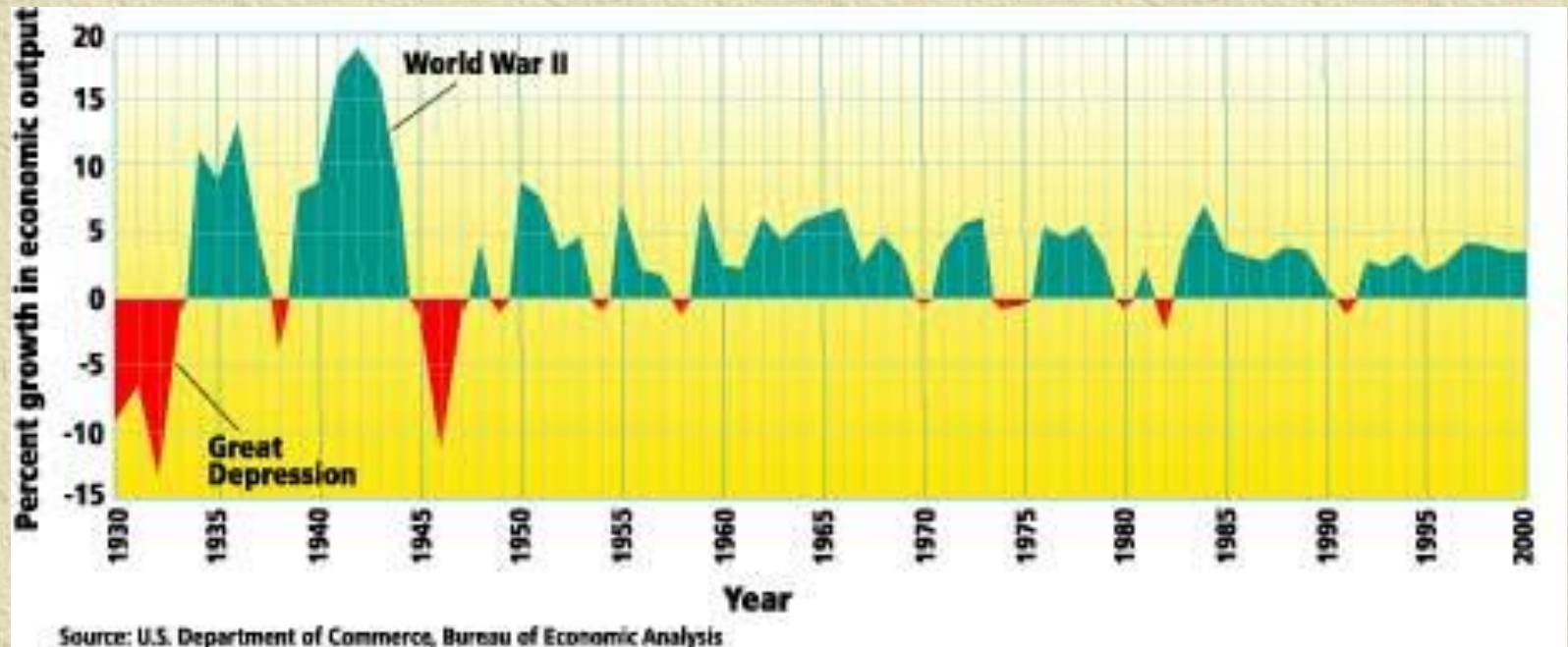


Real Change in Business Inventories

Percent of GDP



Historical Data - USA



**BUSINESS CYCLE
REFERENCE DATES**

DURATION IN MONTHS

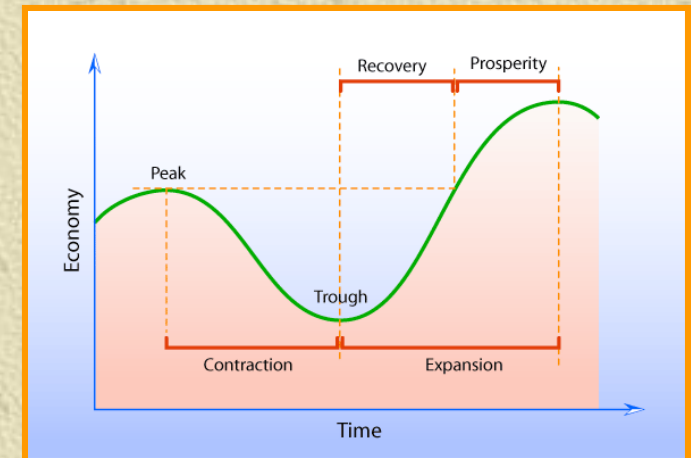
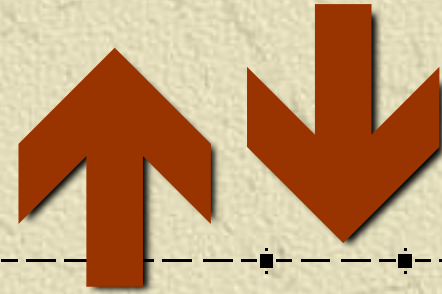
Peak	Trough	Contraction	Expansion	Cycle	
<i>Quarterly dates are in parentheses</i>		<i>Peak to Trough</i>	<i>Previous trough to this peak</i>	<i>Trough from Previous Trough</i>	<i>Peak from Previous Peak</i>
	December 1854 (IV)	--	--	--	--
June 1857(II)	December 1858 (IV)	18	30	48	--
October 1860(III)	June 1861 (III)	8	22	30	40
April 1865(I)	December 1867 (I)	32	46	78	54
June 1869(II)	December 1870 (IV)	18	18	36	50
October 1873(III)	March 1879 (I)	65	34	99	52
March 1882(I)	May 1885 (II)	38	36	74	101
March 1887(II)	April 1888 (I)	13	22	35	60
July 1890(III)	May 1891 (II)	10	27	37	40
January 1893(I)	June 1894 (II)	17	20	37	30
December 1895(IV)	June 1897 (II)	18	18	36	35
June 1899(III)	December 1900 (IV)	18	24	42	42
September 1902(IV)	August 1904 (III)	23	21	44	39
May 1907(II)	June 1908 (II)	13	33	46	56
January 1910(I)	January 1912 (IV)	24	19	43	32
January 1913(I)	December 1914 (IV)	23	12	35	36
August 1918(III)	March 1919 (I)	7	44	51	67
January 1920(I)	July 1921 (III)	18	10	28	17
May 1923(II)	July 1924 (III)	14	22	36	40
October 1926(III)	November 1927 (IV)	13	27	40	41
August 1929(III)	March 1933 (I)	43	21	64	34
May 1937(II)	June 1938 (II)	13	50	63	93
February 1945(I)	October 1945 (IV)	8	80	88	93
November 1948(IV)	October 1949 (IV)	11	37	48	45
July 1953(II)	May 1954 (II)	10	45	55	56
August 1957(III)	April 1958 (II)	8	39	47	49

5. BUSINESS CYCLES Practice



Indicators:

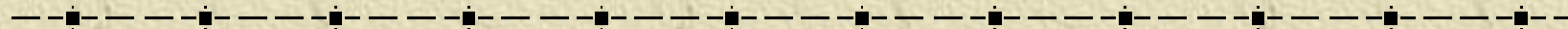
1. GDP (GNP) Economic Activity
2. Sales(Outlet Stores)
3. Warehouse (Stock level)
4. Investments(Factories)
5. Inflation Rate(Price stability)
6. Bank Rates % (Central Bank Rate)
7. Unemployment(Job Market)
8. Wages(Personal Income)
9. Consumers' Optimism
10. Stock market(Earnings/Value)
11. Oil Price(Raw materials)
12. Gold price(Strategic / Risk)
13. Currency(Exchange Rate)



Business Cycle – practice test

INDICATORS	I – RECESSION (Crisis/Contraction)	II – DEPRESSION (Slump)	III – RECOVERY (Expansion)	IV – GROWTH (Boom)
GDP	↓	↓↓↓	↑	↑↑↑
Sales				
Warehouse				
Investments				
Inflation				
Bank Rate %				
Unemployment				
Wages				
Consumers' Optimism				
Stock Market				
Oil				
Gold				
Currency				

Indicators	I – RECESSION (Crisis/Contraction)	II – DEPRESSION (Slump)	III – RECOVERY (Expansion)	IV – GROWTH (Boom)
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GDP (GNP) Economic Activity	↓	↓↓	↑	↑↑↑
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Sales (Outlet Stores)	↓↓	→ ↓	↑	↑↑↑
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Warehouse (Stock level)	↑↑	→ ↓ ?	→	↓
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Investments (Factories)	↓	↓↓	↑	↑↑
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Inflation Rate (Price stability)	↑↑	→ ↓	↑	↑↑↑
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Bank Rates % (Central Bank Rate)	↑↑↑	↓	↑ ?	↑↑
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Indicators	I – RECESSION (Crisis/Contraction)	II – DEPRESSION (Slump)	III – RECOVERY (Expansion)	IV – GROWTH (Boom)
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Unemployment (Job Market)	↑	↑↑↑	⇒ ↓ ?	↓↓↓
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Wages (Personal Income)	⇒ ?	↓↓↓	⇒	↑↑↑
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Consumers' Optimism	↓	↓↓↓↓	⇒	↑↑↑
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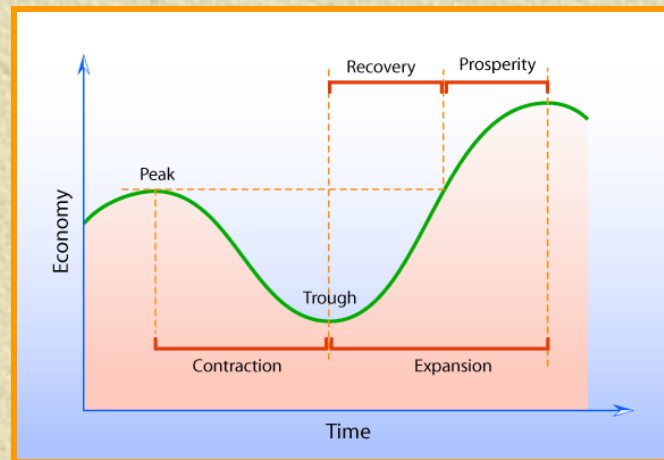
Stock market (Earnings/Value)	↓↓↓↓	⇒ ↓	↑↑↑	↑↑
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Oil Price (Raw materials)	↓ ?	↓↓ ?	↑ ?	↑↑↑ ?
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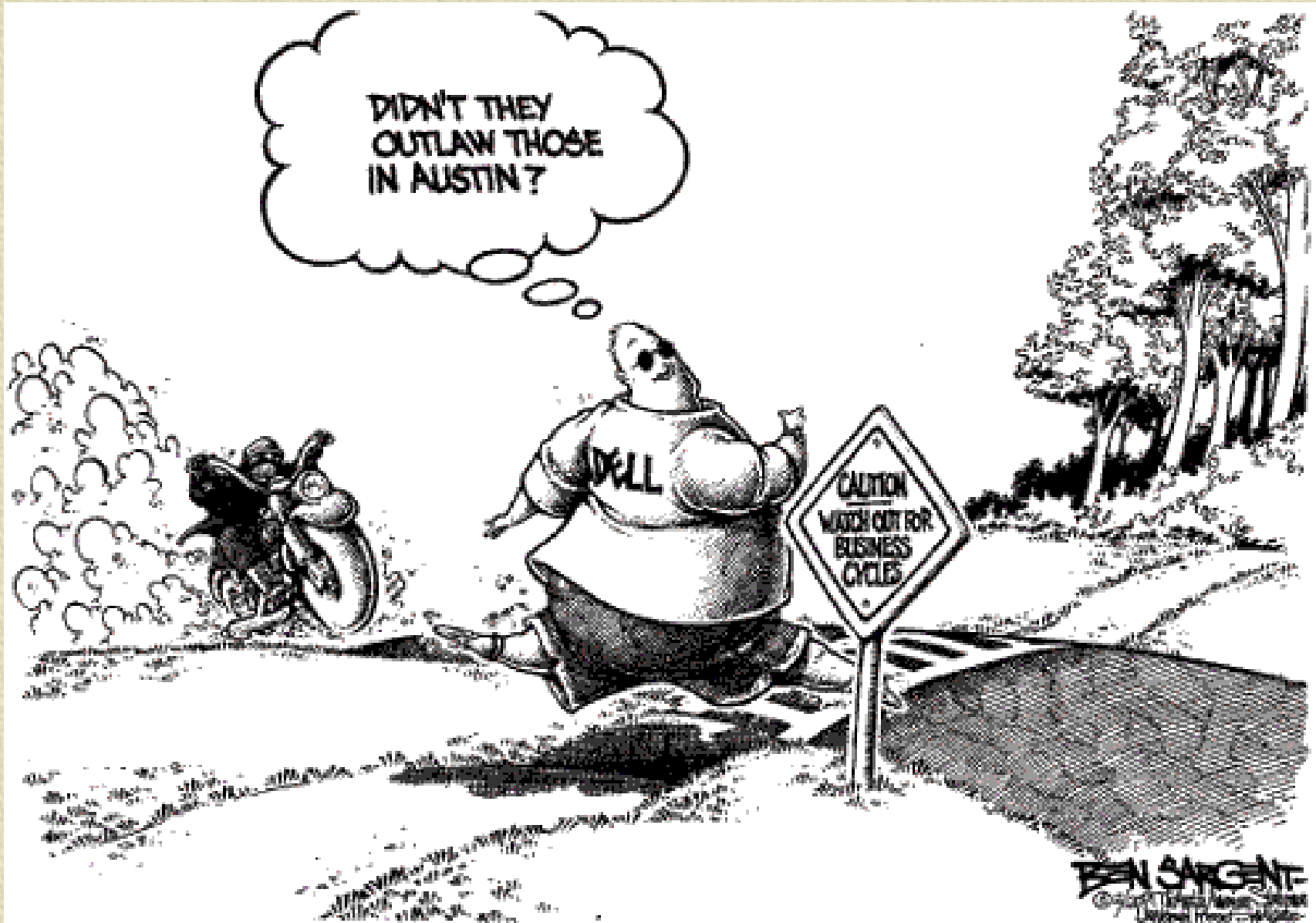
Gold price (Strategic / Risk)	↑↑↑	⇒	↓↓↓	↓↓↓
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Indicators	I – RECESSION (Crisis/Contraction)	II – DEPRESSION (Slump)	III – RECOVERY (Expansion)	IV – GROWTH (Boom)
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Currency (Exchange Rate)	↓	↓↓	↑	↑↑↑↑
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Indicators	I – RECESSION (Crisis/Contraction)	II – DEPRESSION (Slump)	III – RECOVERY (Expansion)	IV – GROWTH (Boom)
GDP (GNP) Economic Activity	↓	↓ ↓	↑	↑ ↑ ↑
Sales (Outlet Stores)	↓ ↓	⇒ ↓	↑	↑ ↑ ↑
Warehouse (Stock level)	↑ ↑	⇒ ↓ ?	⇒	↓
Investments (Factories)	↓	↓ ↓	↑	↑ ↑
Inflation Rate (Price stability)	↑ ↑	⇒ ↓	↑	↑ ↑ ↑
Bank Rates % (Central Bank Rate)	↑ ↑ ↑	↓	↑ ?	↑ ↑
Unemployment (Job Market)	↑	↑ ↑ ↑	⇒ ↓ ?	↓ ↓
Wages (Personal Income)	⇒ ?	↓ ↓	⇒	↑ ↑
Consumers' Optimism	↓	↓ ↓ ↓ ↓	⇒	↑ ↑ ↑
Stock market (Earnings/Value)	↓ ↓ ↓ ↓	⇒ ↓	↑ ↑ ↑	↑ ↑
Oil Price (Raw materials)	↓ ?	↓ ↓ ?	↑ ?	↑ ↑ ↑ ?
Gold price (Strategic / Risk)	↑ ↑ ↑	⇒	↓ ↓	↓ ↓ ↓
Currency (Exchange Rate)	↓	↓ ↓	↑	↑ ↑ ↑ ↑



CAUTION: Watch out for Business Cycles!

Thank you

