March 13, 2012

Reminder:

① AD & DAE are linked ⇒ both represent total expenditure.

For example: G↑; I↑; X↑; M↓ → AD, DAE

② DAE is not directly connected to AS; But there is the indirect effect running through price or wage adjustment. Or in some cases, AS is intact.

③ P is the price of the output (or the final product.)

Inflationary or Deflationary gap has the direct impact on wage or prices of inputs. ⇒ Not the direct impact on output price

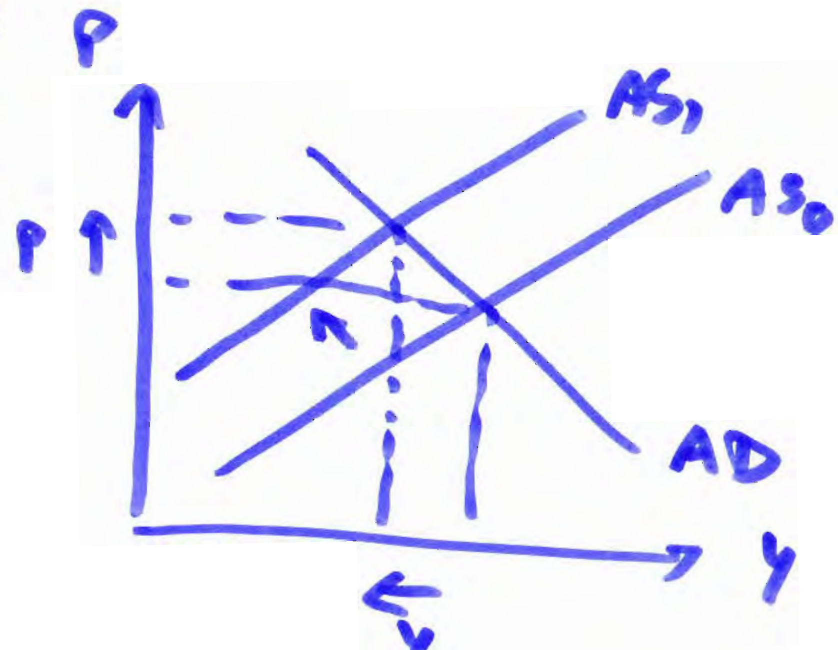
Causes of Inflation

① Demand-Pull Inflation

Inflation is initiated by an increase in AD

Causes: Govt ↑, Export ↑
Investment ↑,
Money Supply ↑

② Cost-Push Inflation

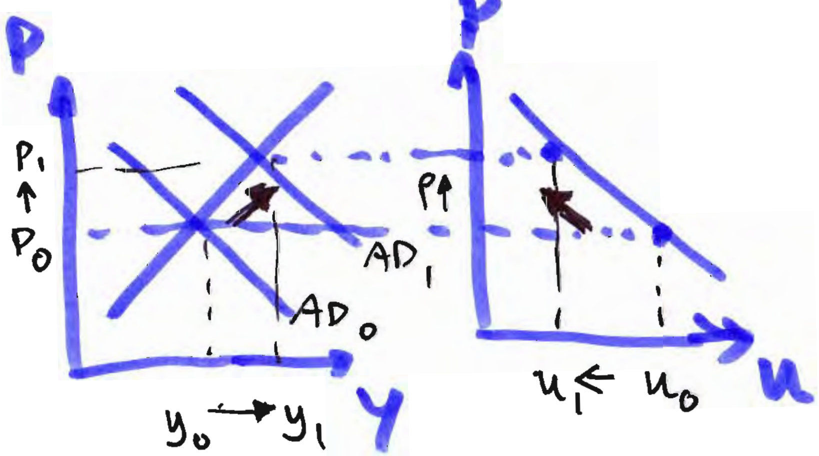


Inflation is caused by an increase in production cost.

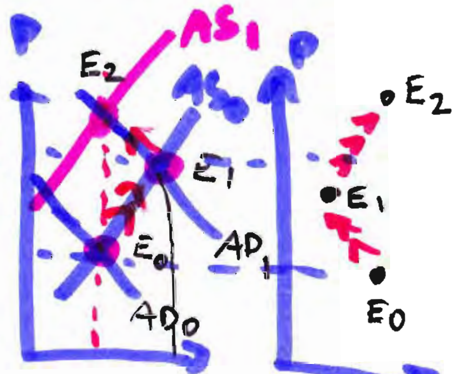
Causes: Wage ↑, Oil Price ↑
Price of raw materials (Steel, copper, coal). ↑.

Phillips Curve (PC) : The relationship between inflation and unemployment rate.

Short-Run PC



Transition



$y_0 \to y_1$

$y_0 \leftarrow$

$\Downarrow$

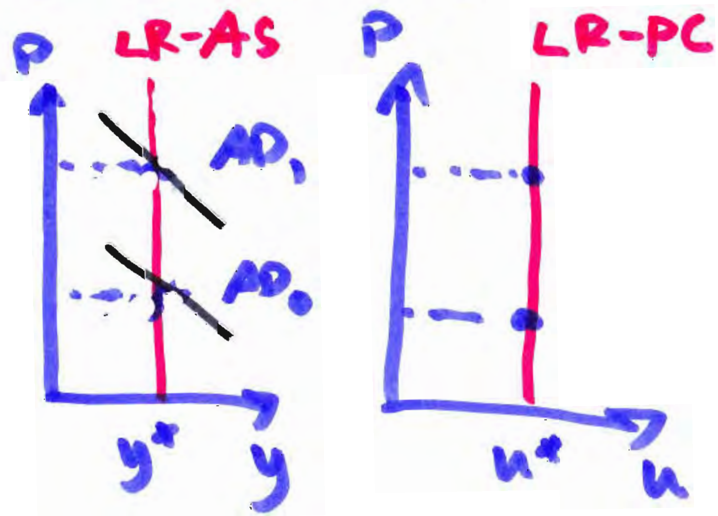
$y^0 = y^* =$ Potential Output or Potential GDP

$\Downarrow$

[Full employment] $\Rightarrow$ if it is true, we will have $u = 0$

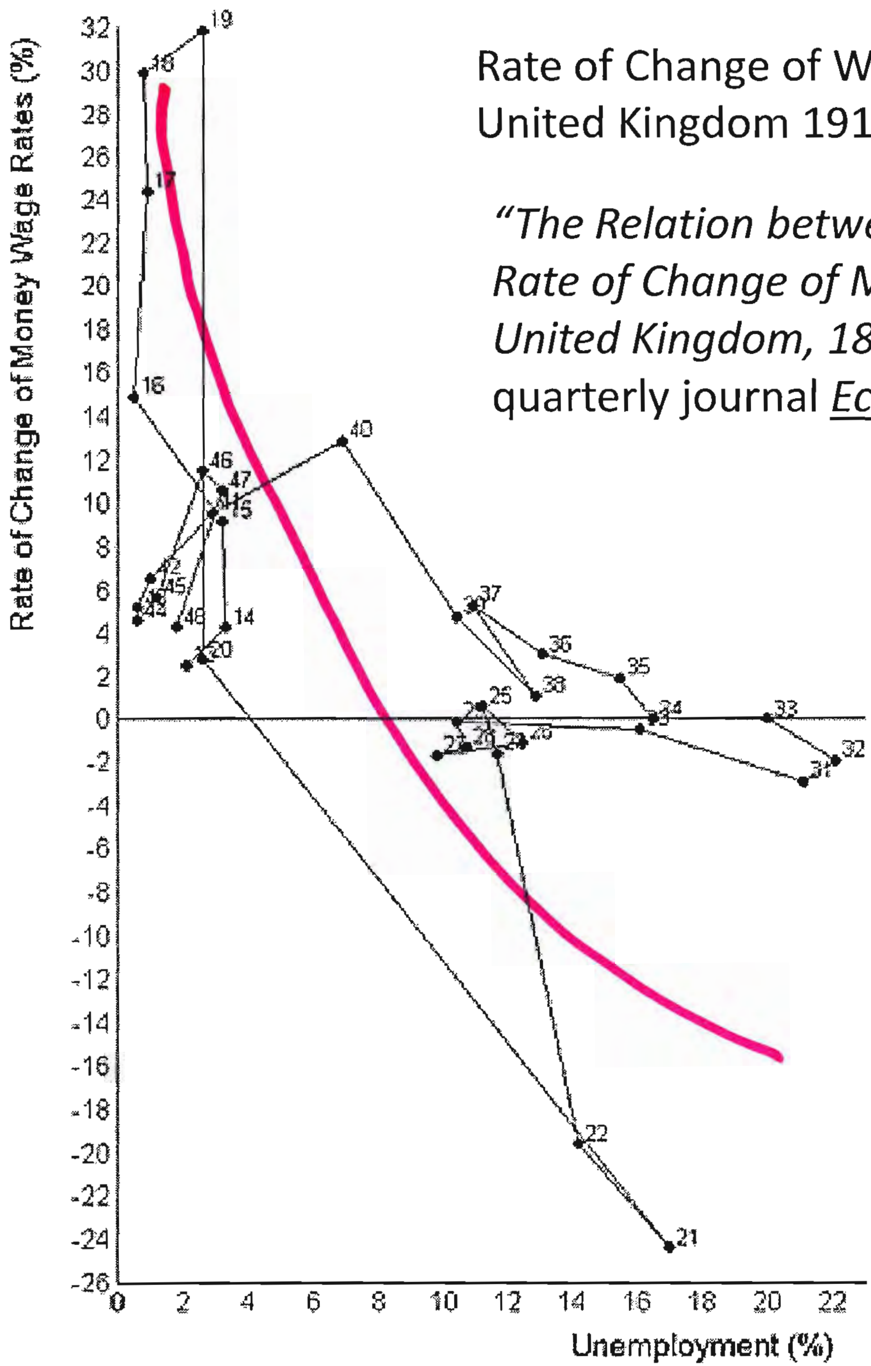
[or natural rate of unemployment]

Long-Run PC



Relationship of Y and u.

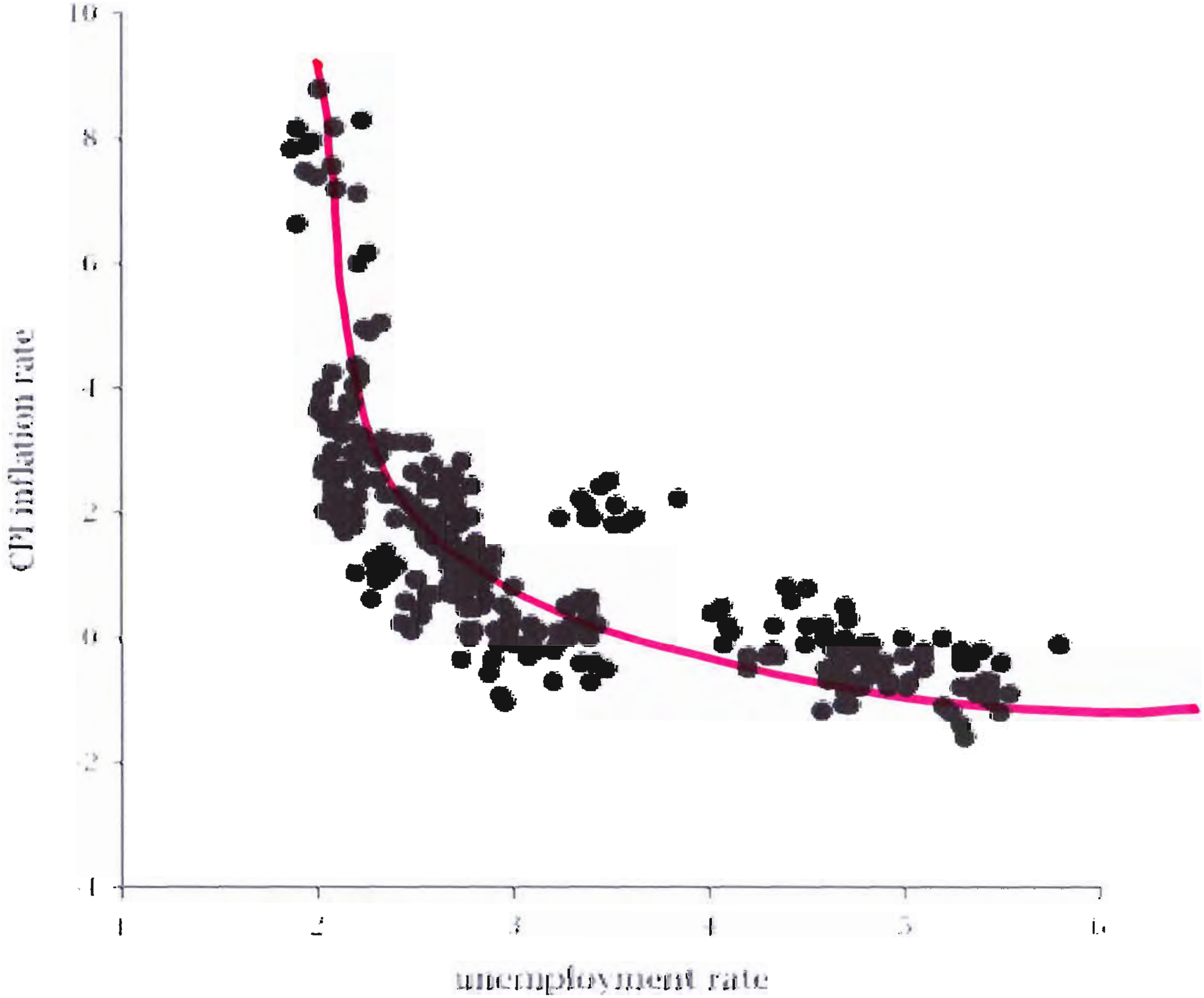
Okun's Law : $Y\uparrow \to u\downarrow$



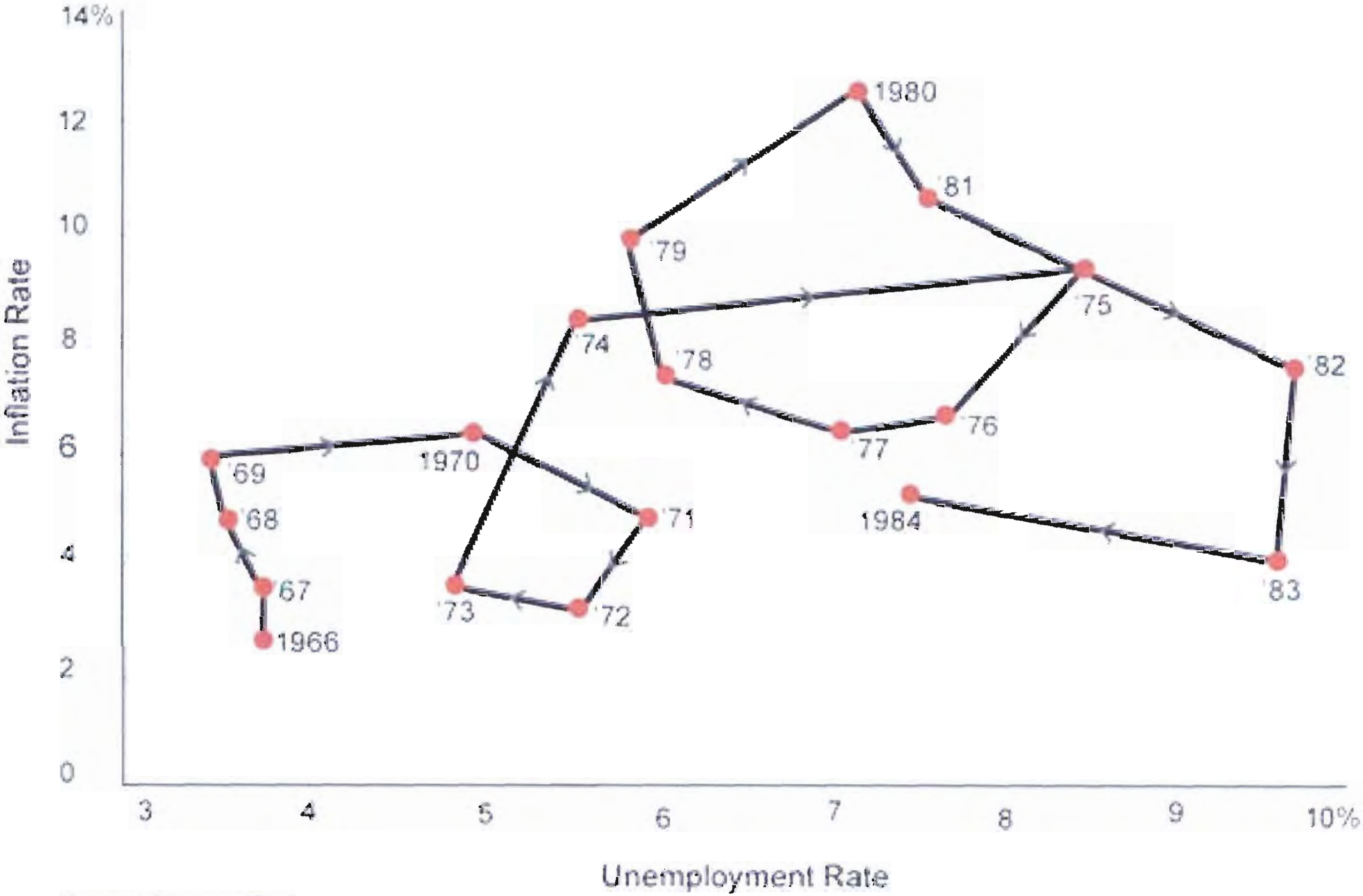
Rate of Change of Wages against Unemployment, United Kingdom 1913–1948 from Phillips (1958)

"The Relation between Unemployment and the Rate of Change of Money Wage Rates in the United Kingdom, 1861-1957" published in the quarterly journal *Economica*

Figure 1: Japan's Inflation and Unemployment Rates January 1980 to August 2005

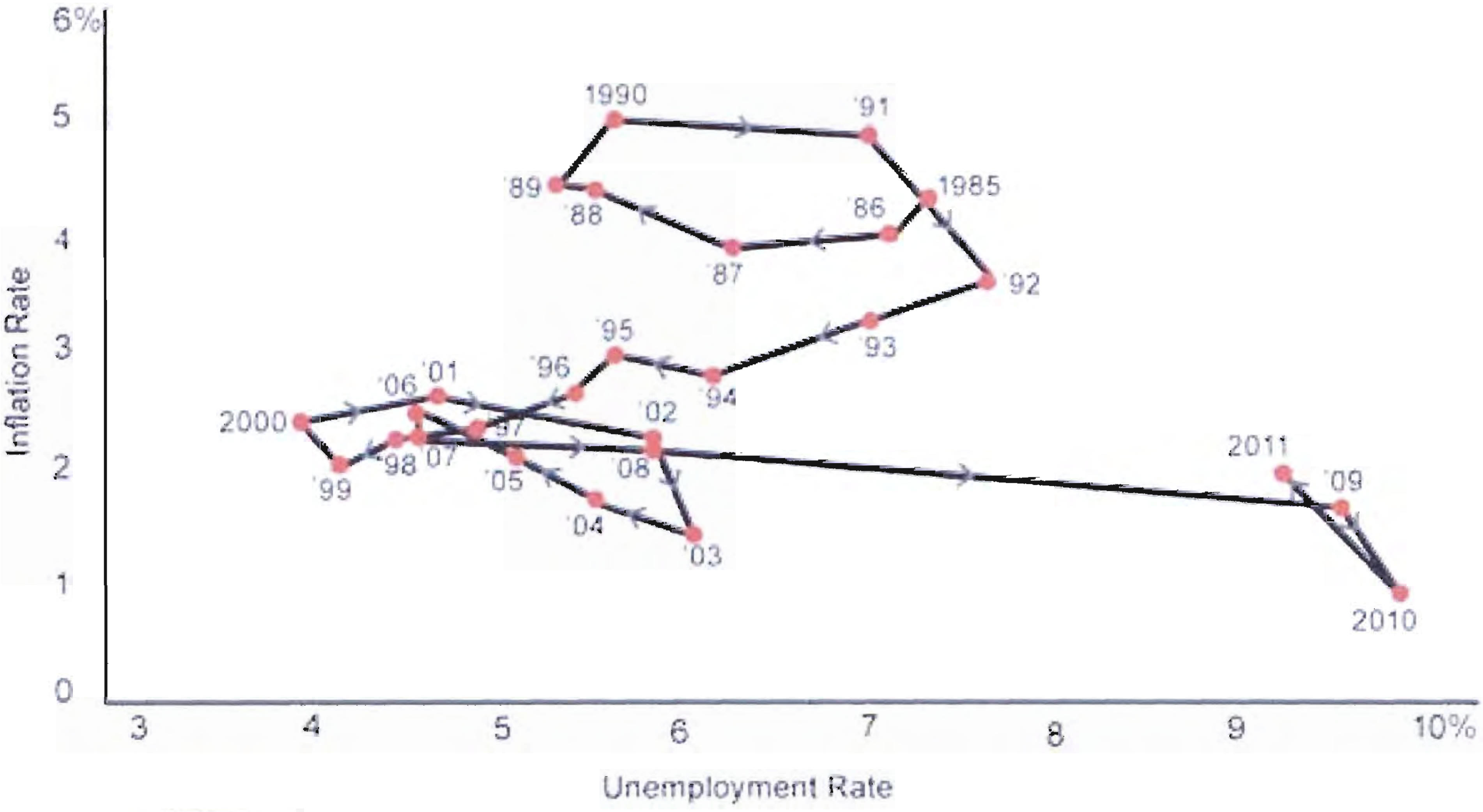


US: *Inflation and Unemployment: 1966-1984*

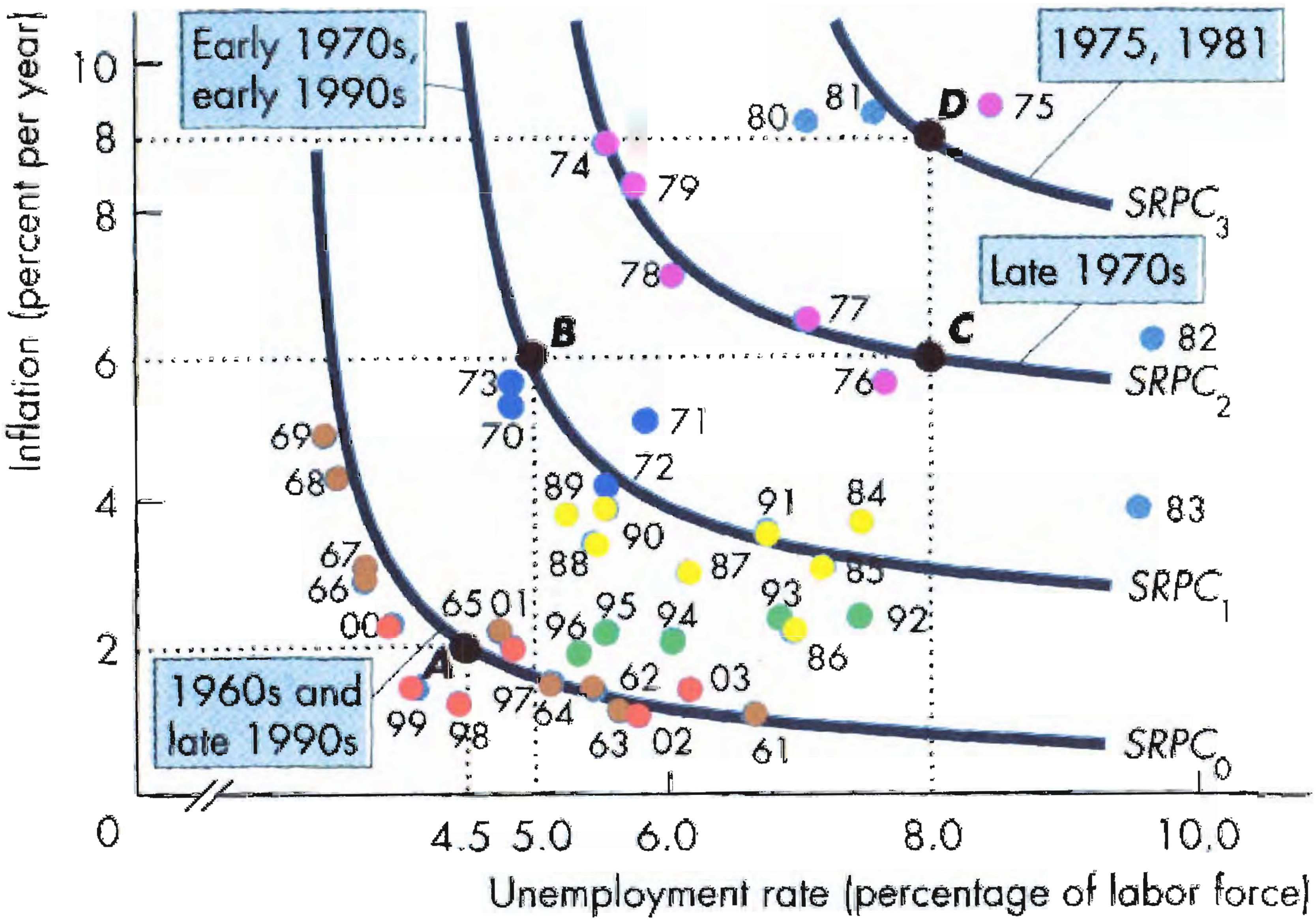


Source: St. Louis Fed

Inflation and Unemployment: 1985-2011



Source St. Louis Fed



Early 1970s, early 1990s
1975, 1981
Late 1970s
1960s and late 1990s
A
B
C
D
SRPC3
SRPC2
SRPC1
SRPC0
Inflation (percent per year)
Unemployment rate (percentage of labor force)
0
2
4
6
8
8
10
4.5
5.0
6.0
8.0
10.0
61
62
63
64
65
66
67
68
69
70
71
72
73
74
75
76
77
78
79
80
81
82
83
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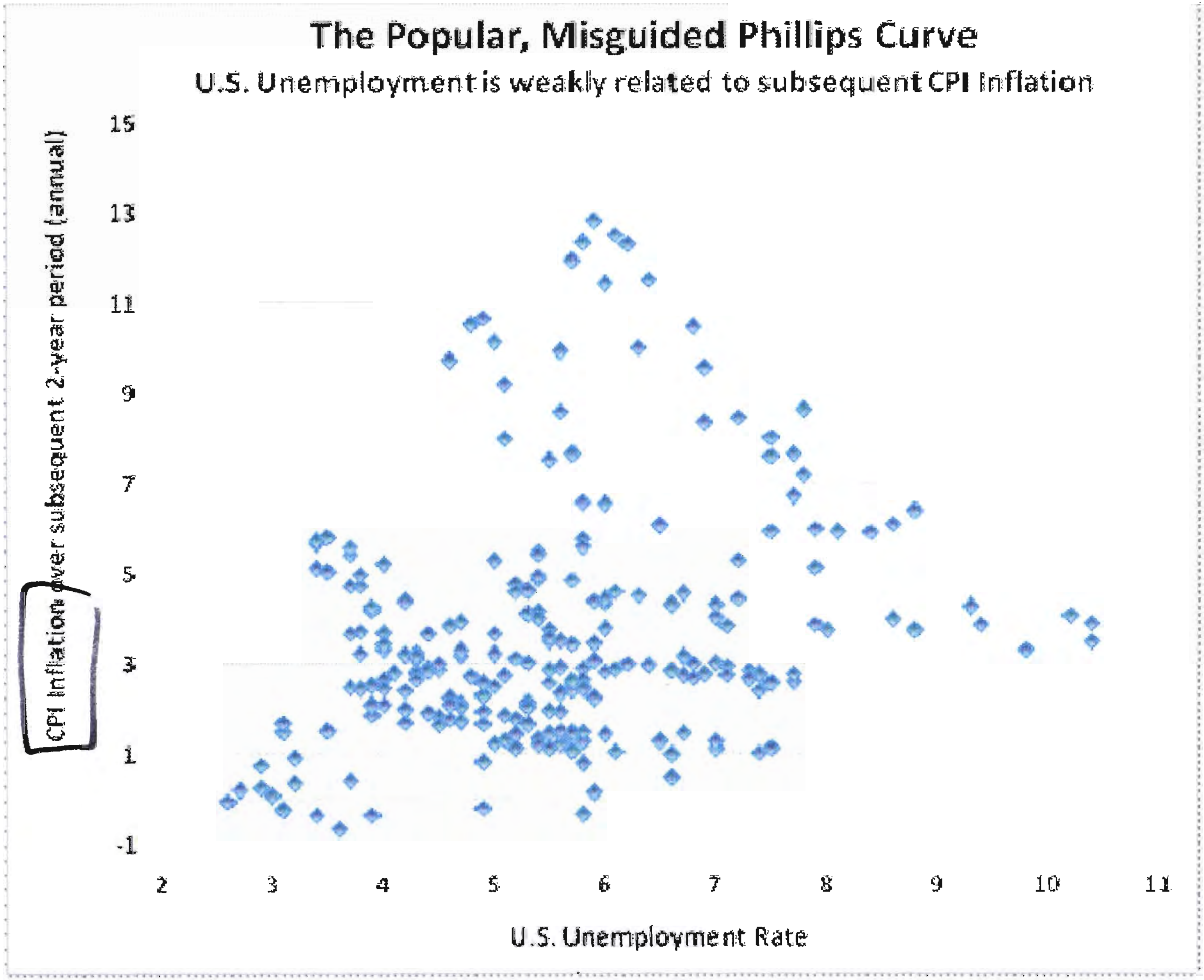
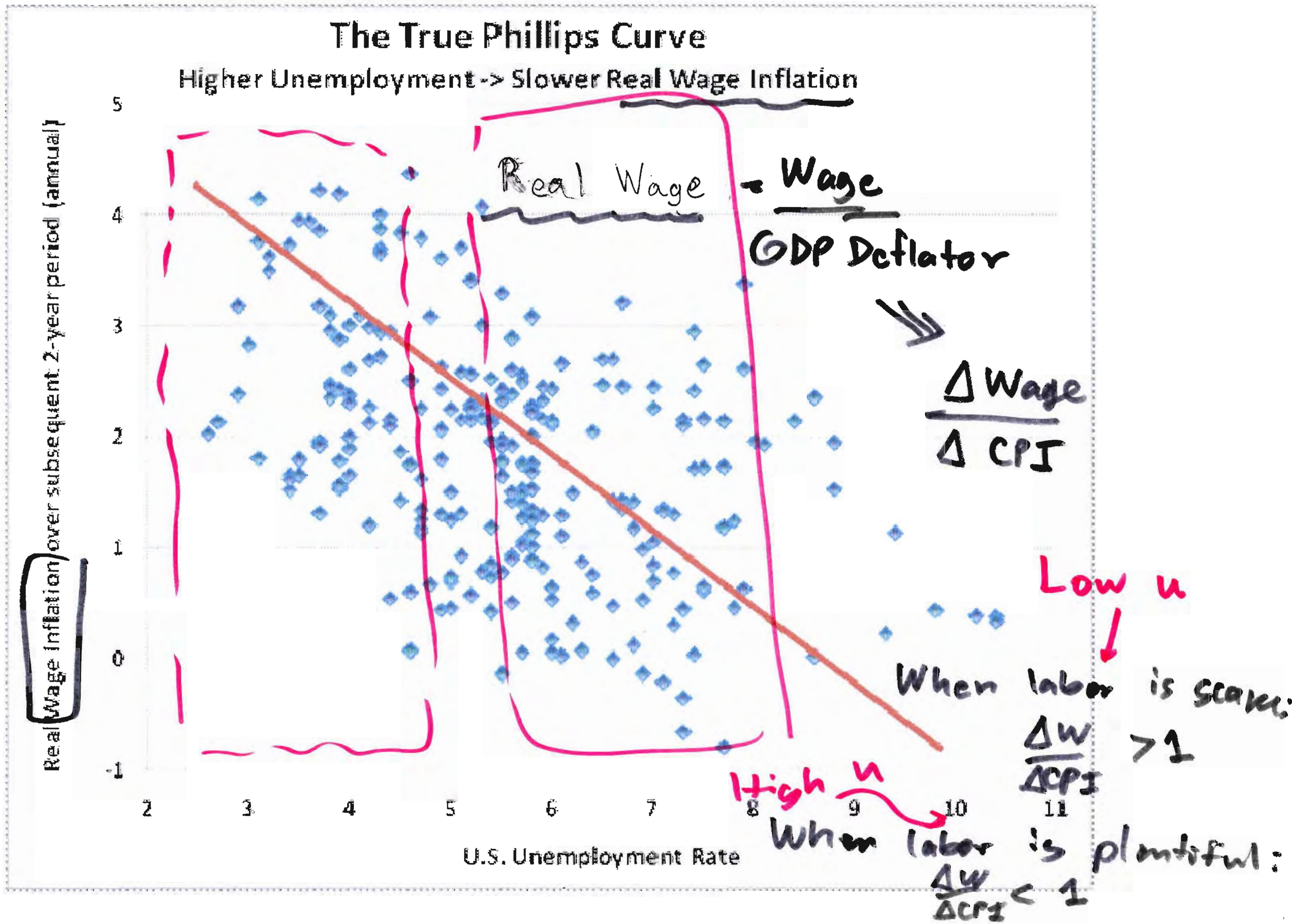
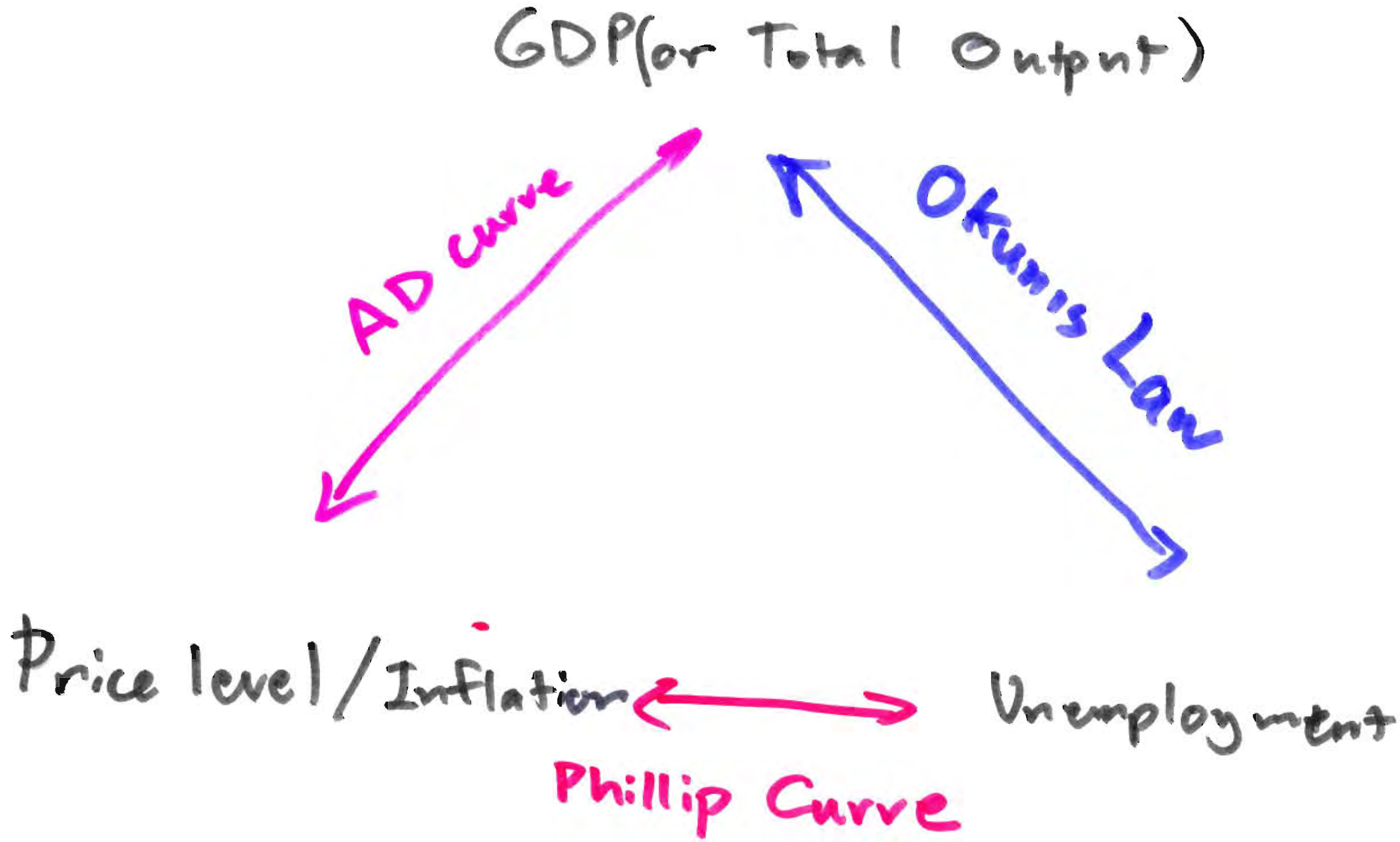
98
99
00
01
02
03



The Popular, Misguided Phillips Curve
U.S. Unemployment is weakly related to subsequent CPI Inflation
CPI Inflation over subsequent 2-year period (annual)
15
13
11
9
7
5
3
1
-1
2
3
4
5
6
7
8
9
10
11
U.S. Unemployment Rate


The True Phillips Curve
Higher Unemployment -> Slower Real Wage Inflation
Real Wage Inflation over subsequent 2-year period (annual)
U.S. Unemployment Rate
5
4
3
2
1
0
-1
2
3
4
5
6
7
8
9
10
11
Real Wage = Wage / GDP Deflator
⇒ ΔWage / ΔCPI
Low u
When labor is scarce: Δw / ΔCPI > 1
High u
When labor is plentiful: Δw / ΔCPI < 1


GDP(or Total Output)
AD curve
Okun's Law
Price level/Inflation
Unemployment
Phillip Curve

FISCAL POLICY : Govt's spending and taxing policy.

(Ministry of Finance)

Tax what is inefficient (excise tax)

Tax reduction for efficient production or activity

Objectives :

1. Efficient resource allocation
2. Fair income distribution (Gini)
3. Economic growth (high GDP growth)
4. Economic Stability (Low volatility) of price/output