Secular Stagnation – An Overview of *the Most Important* Current Macroeconomic Problem

Macroeconomics is concerned with the following topics

(1) National Income and Wealth Determination – Y^e and W^e

(2) Price Level Determination – P^e

(3) Determination of the Rate of Unemployment and Wages– U^e and w^e

(4) Determination of the General Level of Interest Rates – R^e
and Interest Sensitive Spending – C^e and I^e

(5) Determination of Economic Growth – $(\Delta Y/Y)^e$

(6) Determination of Inflation – $(\Delta P/P)^e$

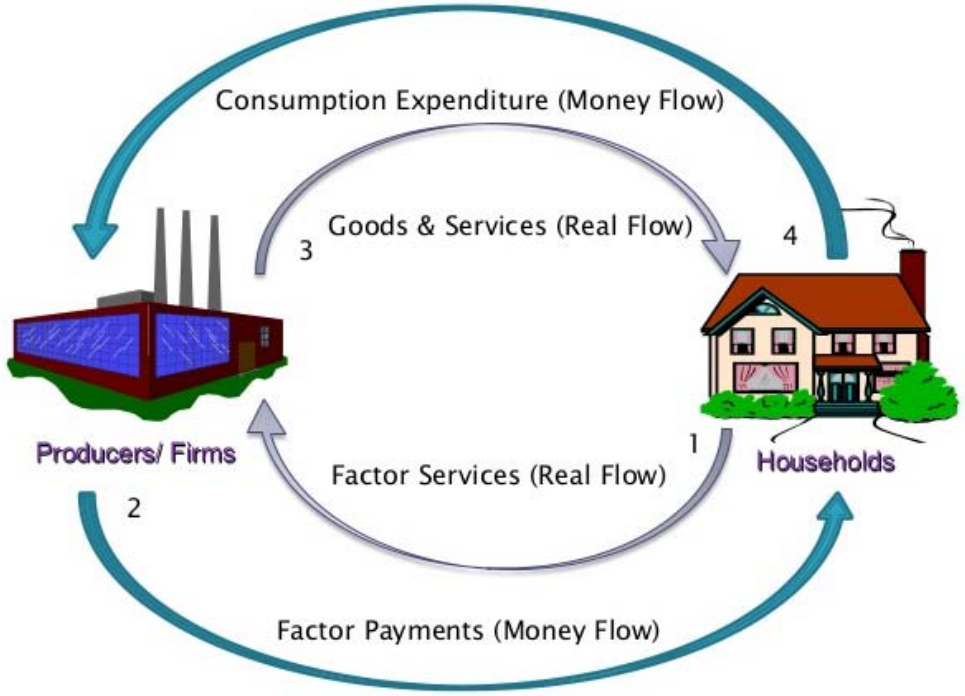
(7) Foreign Exchange Rates (E^e) and Exchange Sensitive Spending (Nx^e)

To adequately address these topics we need to consider –

– The demand for and supply of money, the level of government expenditure, the level of taxes, changes in technology, changes in regulations, changes in exogenously given energy and raw material prices, economic policies, and institutional changes.

–The philosophical and political views on the role of government in the economy (statist, libertarian, and mixed)

Circular Flow Model in 2 Sector Economy (Closed Economy)



Important Points

(1) Output = Income = GDP
(2) Two Flows ... Nominal and Real
(3) Everything Produced Must Be Sold
(4) Doubling of Prices ➡ Doubling of Money Income
(5) GDP is a Flow, Income is a Flow
(6) Money Flow can Expand Without Real Flow Expanding
(7) Two Additional Sectors are Government and Trade/Capital Flows

There are several <u>important points</u> to be made about real GDP

(1) Two types of newly produced goods in the economy (Y and IMP)

(2) Four types of spending on newly produced goods (C, I, G, X)

(3) $Y + IMP \equiv C + I + G + X$

an identity that means all goods newly produced must be sold (remember the circular flow and that the factors ***must*** be paid)

(4) $Y \equiv C + I + G + (X - IMP)$ where $(X\text{-}IMP) \equiv NX \equiv$ Net Exports

the usual way we write the national income identity

(5) $S_{private} + S_{public} \equiv I_{domestic} + I_{foreign}$

derived from (4) and means actual saving = actual investment

(6) Macroeconomic equilibrium in the goods market

– desired production equals desired expenditure

(7) $Y \equiv C_p + I_p + G + NX$ which implies

desired saving = desired investment

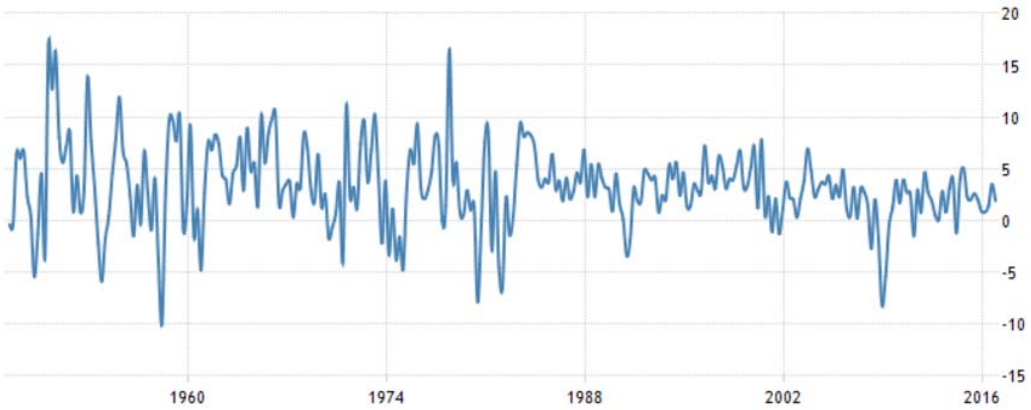
The Central Theme of Macroeconomics is **Equilibrium**. Households and Businesses make plans. If the **Actual Economy** is different than the **Desired Economy** then we are NOT in Equilibrium. Something must adjust to bring the actual outcomes in the economy more in line with the plans of the economic actors as these plans evolve. For example, an important actual and desired set of phenomena are

Actual Spending = Desired Spending

Often we call *desired investment* - the "propensity to invest", while we call *desired* saving - the "propensity to save". These two should be contrasted to *actual* investment and *actual* saving, respectively.

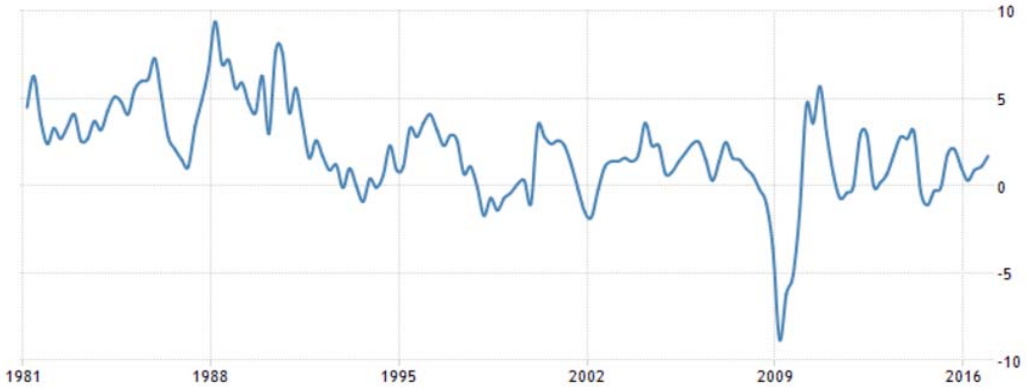
Differences in the propensity to invest and the propensity to save drives actual investment and actual saving to equilibrium where the two are same.

US GDP GROWTH RATE



EU GDP ANNUAL GROWTH RATE

JAPAN GDP ANNUAL GROWTH RATE



US GOVERNMENT BOND 10Y

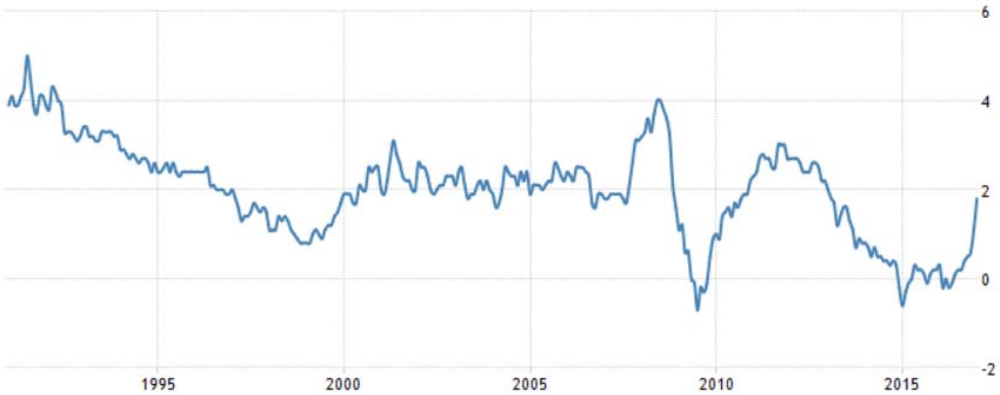
GERMANY GOVERNMENT BOND 10Y

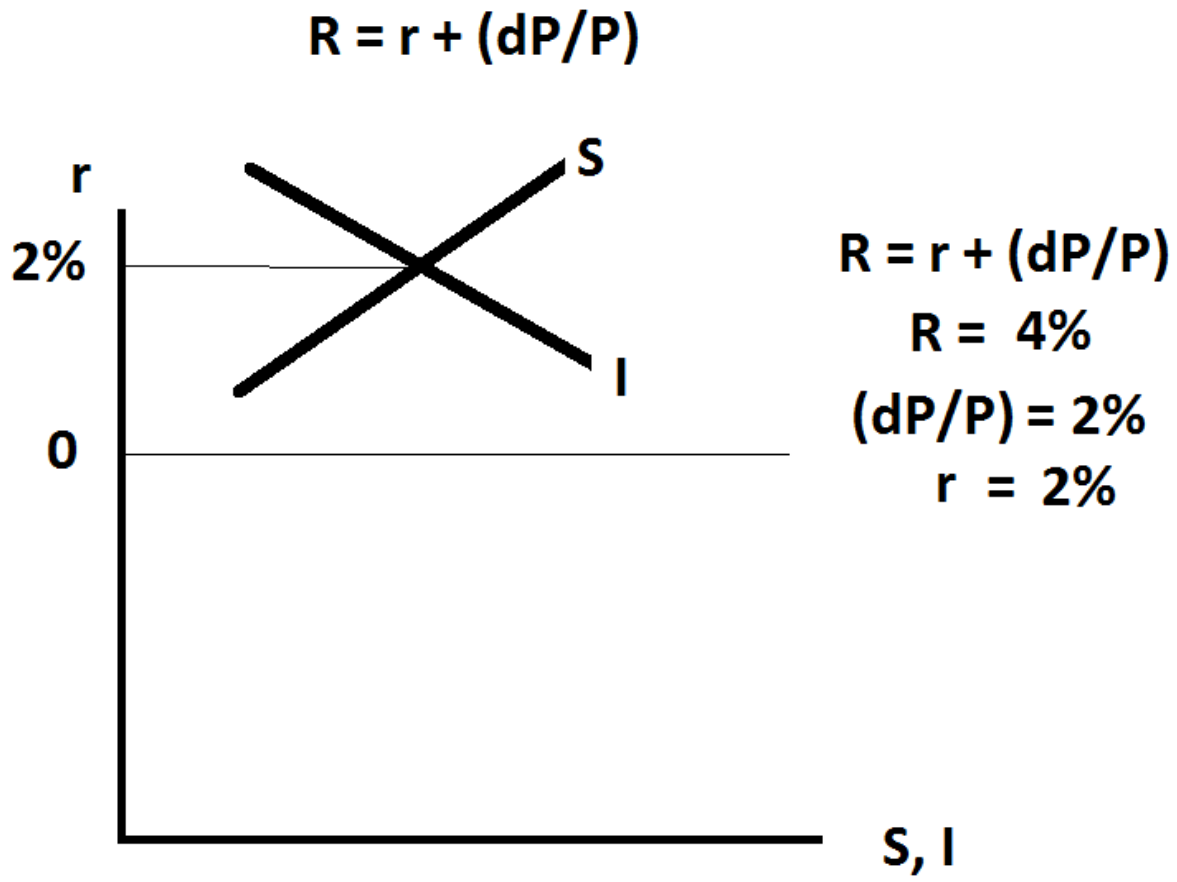
JAPAN GOVERNMENT BOND 10Y

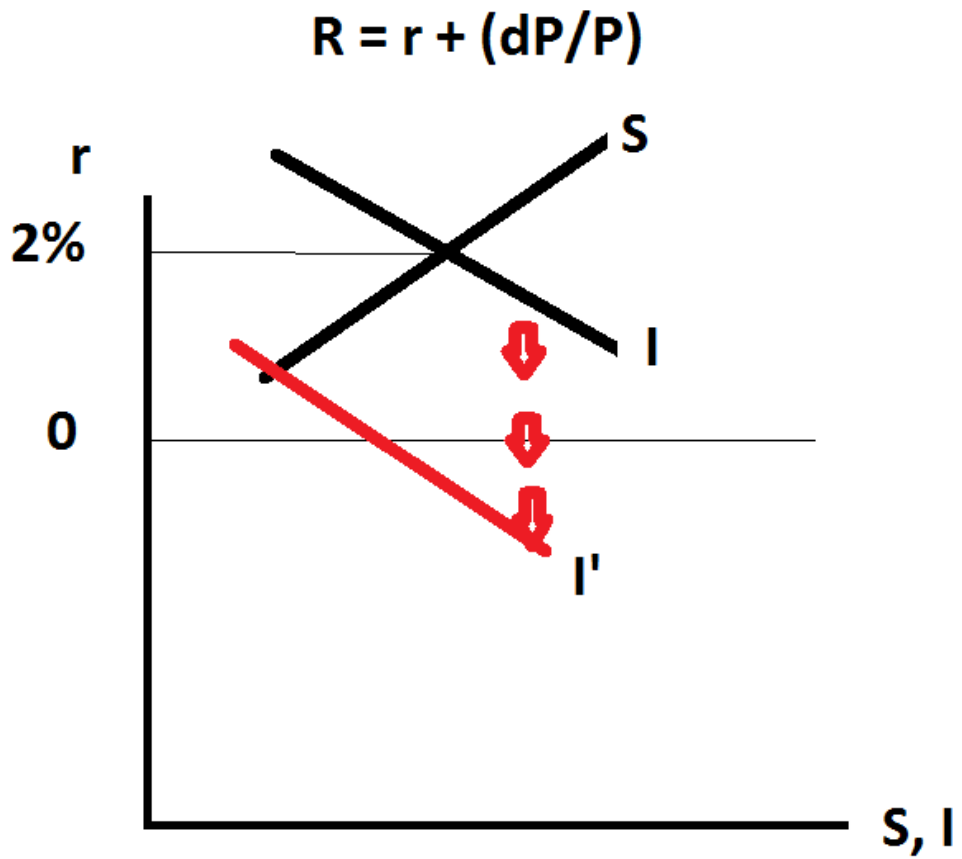
US INFLATION RATE

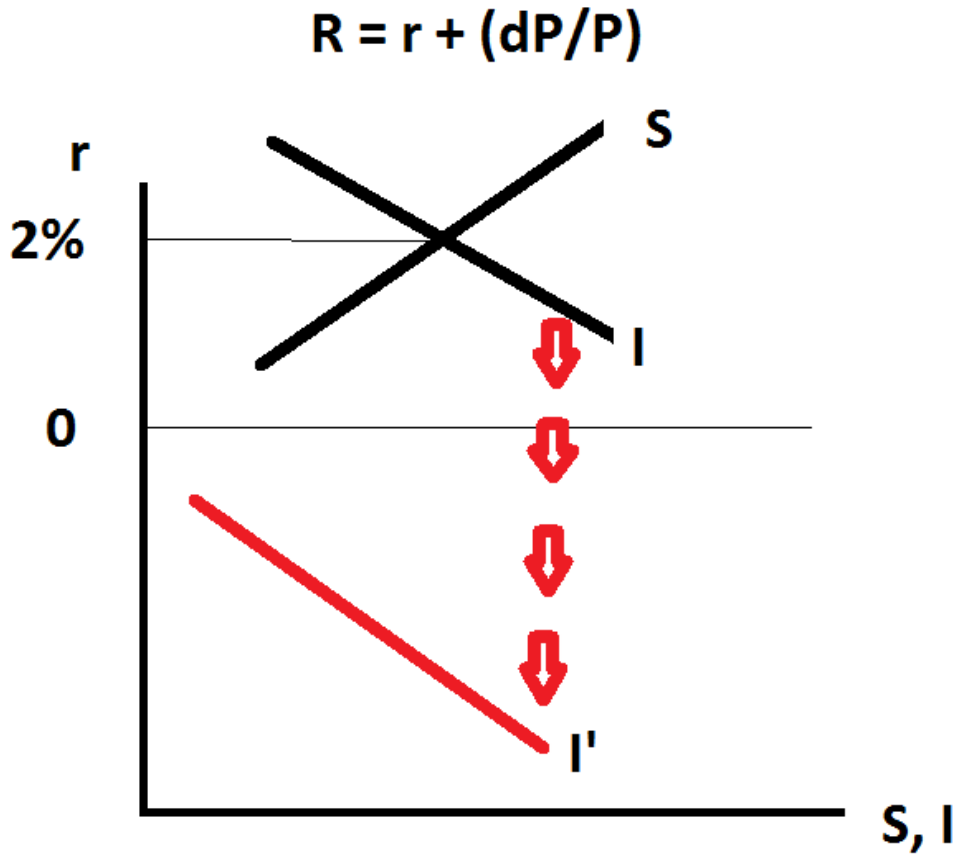
JAPAN INFLATION RATE

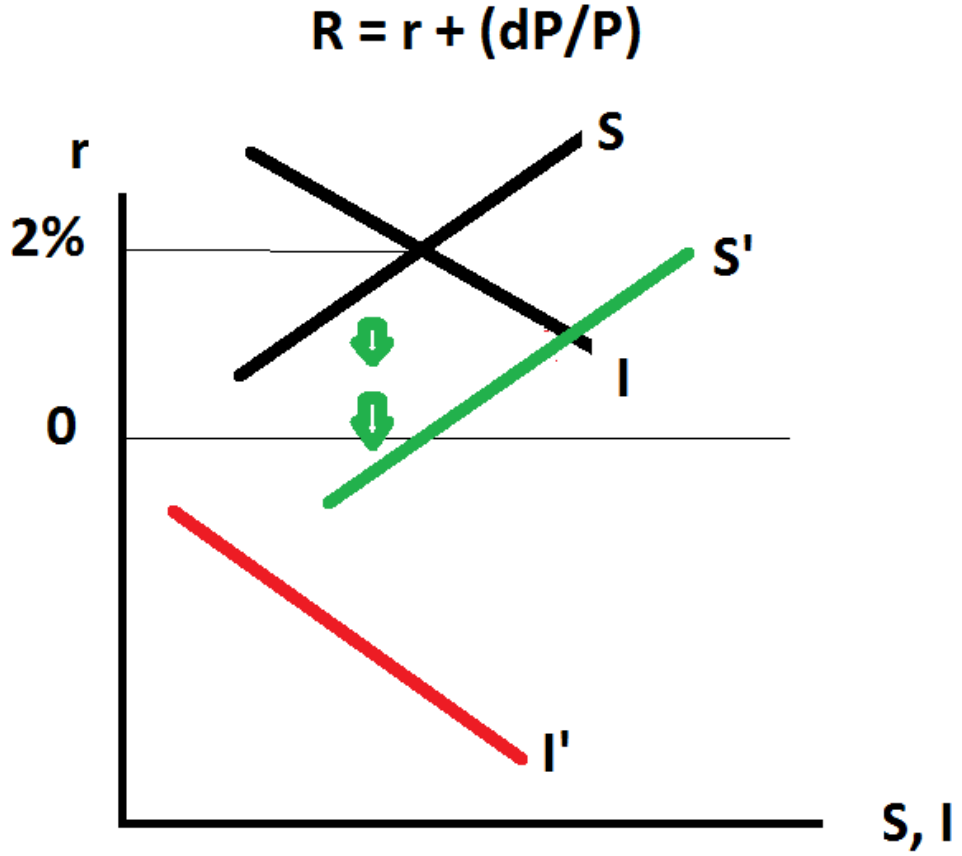
EU INFLATION RATE

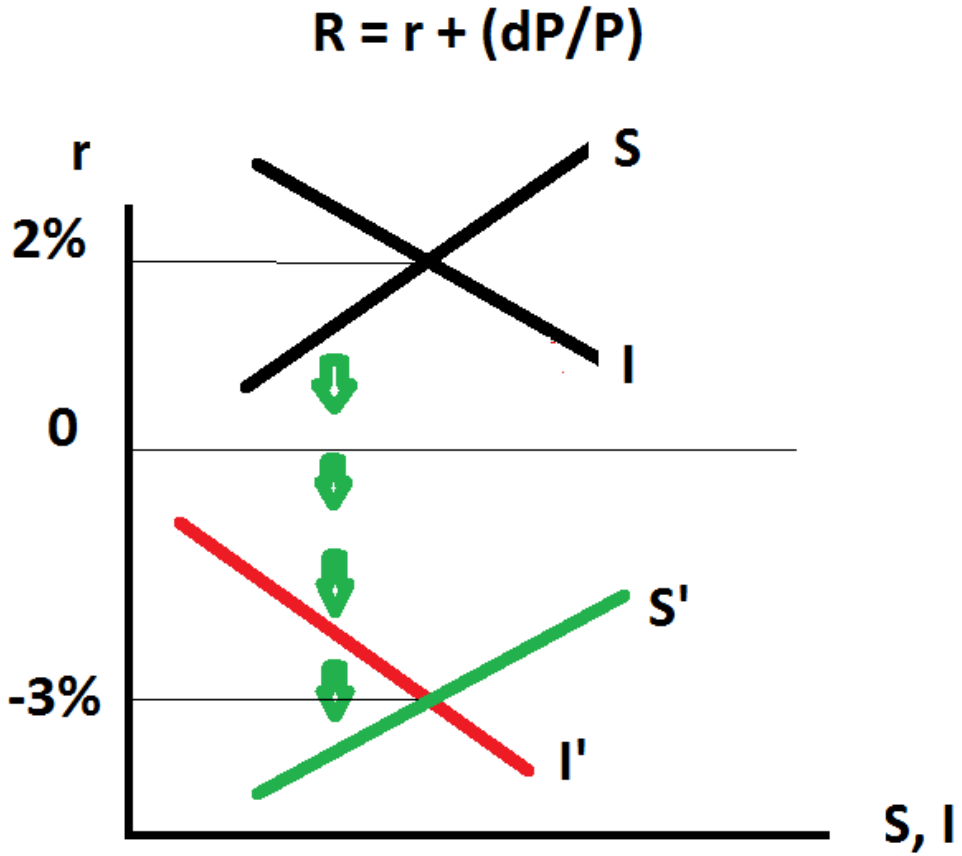


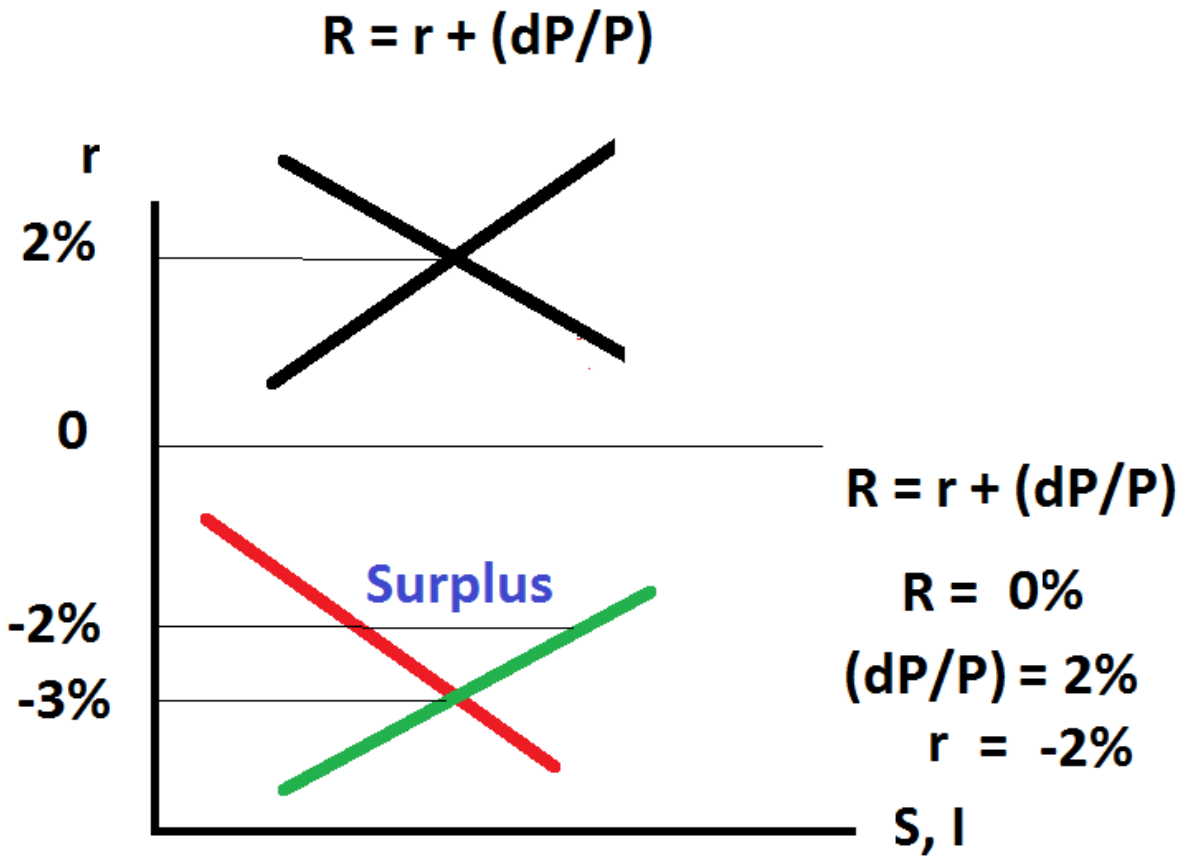

R = r + (dP/P)
r
S
2%
I
0
S, I
R = r + (dP/P)
R = 4%
(dP/P) = 2%
r = 2%


R = r + (dP/P)
r
2%
0
S
I
I'
S, I


R = r + (dP/P)
r
2%
0
S
I
I'
S, I


R = r + (dP/P)
r
2%
0
S
S'
I
I'
S, I

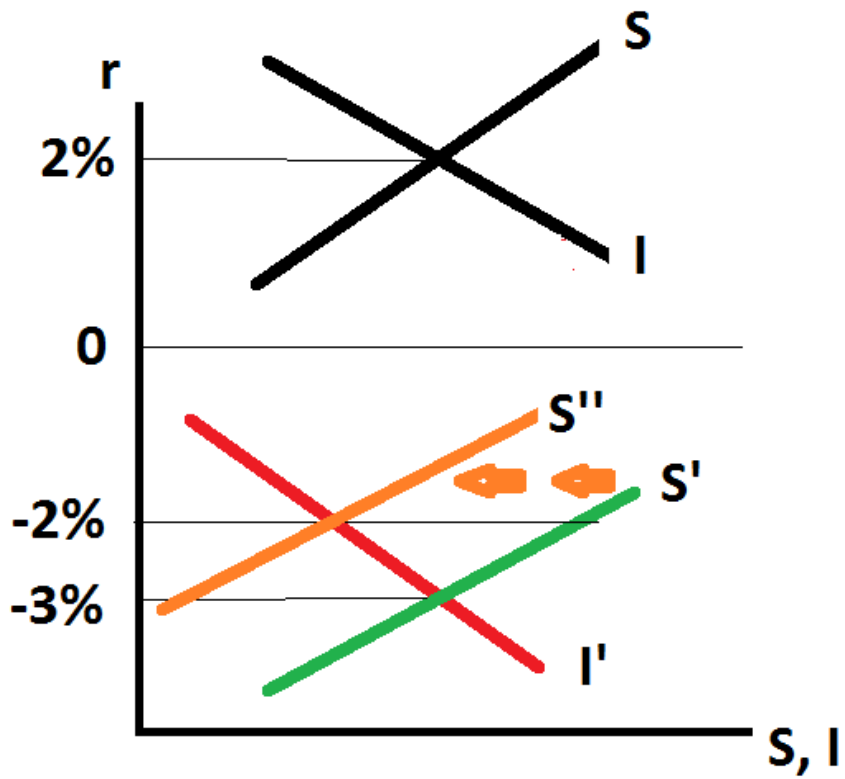

R = r + (dP/P)
r
2%
0
-3%
S
I
S'
I'
S, I


R = r + (dP/P)
r
2%
0
-2%
-3%
Surplus
R = r + (dP/P)
R = 0%
(dP/P) = 2%
r = -2%
S, I

Two things may happen – inflation may be pushed up by monetary policy so that the real rate falls to r = -3% and desired saving and investment are equated at the natural rate of r= -3%, or real output may fall reducing saving and making the new natural rate at r = -2%.

Central banks have been trying to raise the inflation rate, but have not been very successful. This means that we have been experiencing the second phenomenon which is pressure on real output to decline (or not grow as strongly). This is the secular stagnation problem.

R = r + (dP/P)



This shift is caused by declining output

R = r + (dP/P)

R = 4%

(dP/P) = 2%

r = 2%

R = r + (dP/P)

R = 0%

(dP/P) = 2%

r = -2%