Money whirling flow and Keynesian

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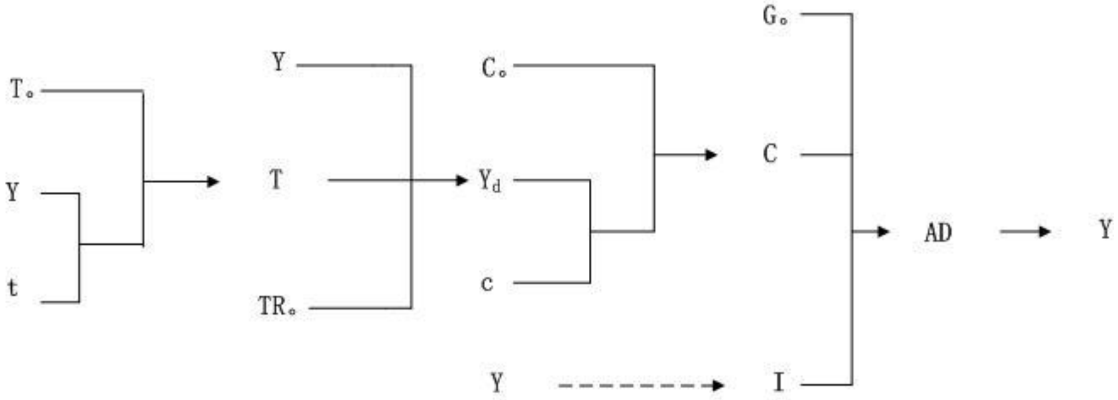
Introduction:

In this paper, I will make use of the Keynes theory to describe the money flow in the free market. I will build a new model based on the Keynes' model. Then I will use the model to explain how the stagnation occur.

1. Traditional Keynes theory framework

In this part, I will discuss the traditional Keynes theory. I have cited a picture from the macroeconomics book. [1]

Figure 1. The traditional Keynes theory overview[1]



C is the consume, I is the investment, G。is the government purchase and Yd is the disposable personal income.

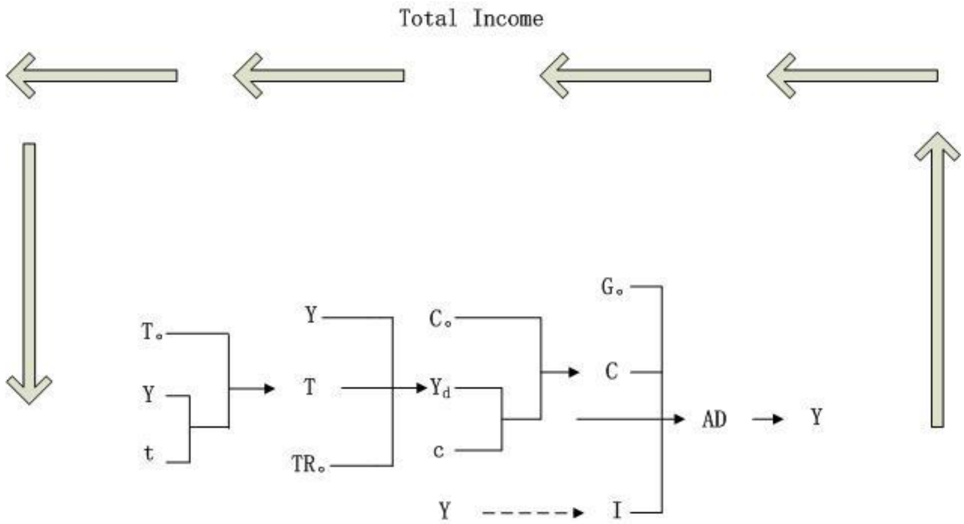
C。is the spontaneous consumption, c is the marginal propensity to consume, TR。Is the transfer payment, t is the tax rate, T。is the fixed tax while T is the tax.

Ad is the total consumption while Y is the total national production. [1]

2. The circulation inside the Keynes Theory Framework

From this picture, we could know that the total demand AD will decide the total production Y, the total production will decide the total income, the total income finally will decide the government purchase G。, consume C and investment I, so it will decide the total demand AD through the mechanism, AD=G+C+I [1]. The money is flowing inside. So we will have another picture like following:

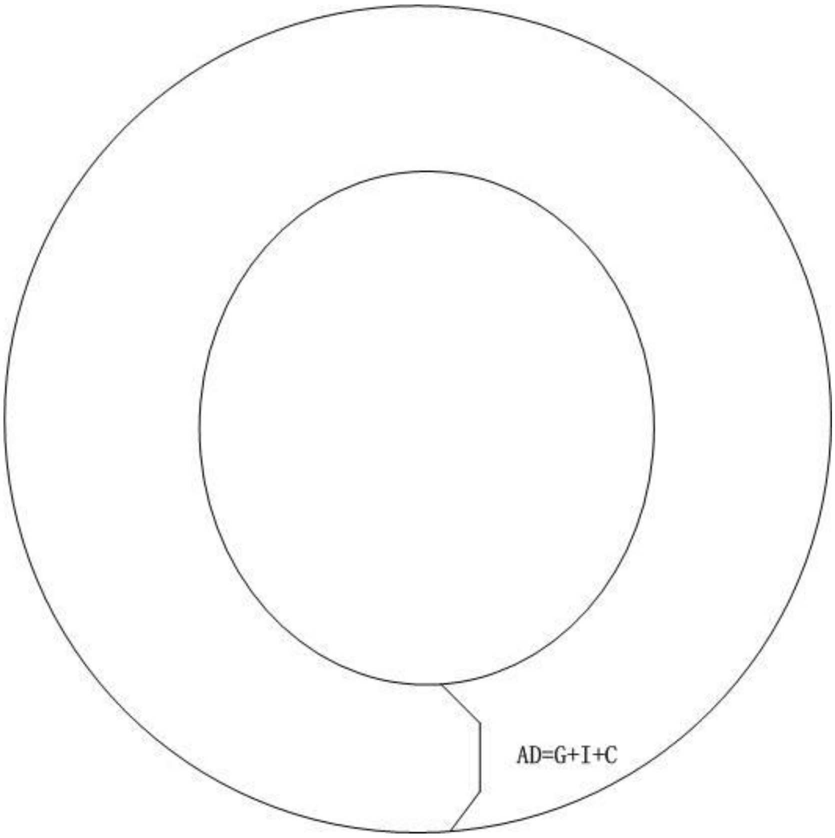
Figure 2. The circulation of money flow inside the Keynes Theory Framework



3. The components of the total demand

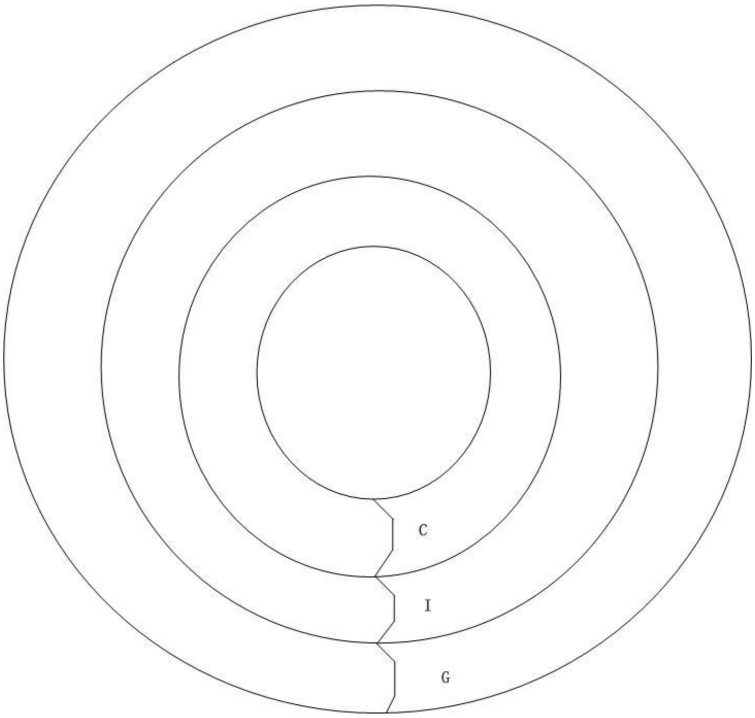
We can regard the whole system as a ring, money is flowing inside the ring.

Figure 3. The whole money circulation



Considering the fact that the Total Demand AD is decided by three components, the government purchase G。, consume C and investment I, we can use three rings to represent this:

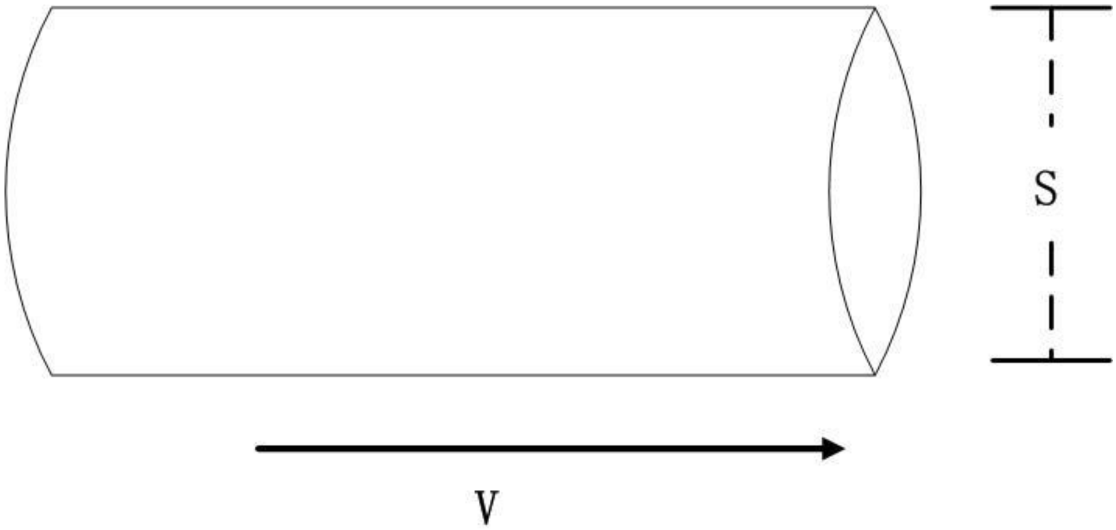
Figure 4. Three money flow circulation



4. Comparison between water tube and money flow

We can firstly research on the water tube:

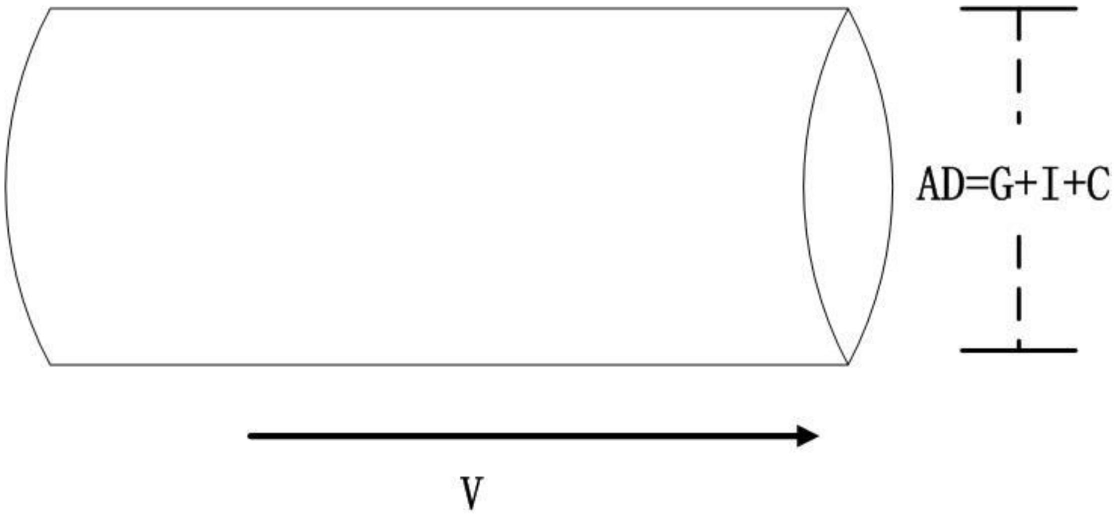
Figure 5. Analysis on the flow volume of water in the tube



The total water flow volume is depended on two variables: one is the cross sectional area of the water flow S, another one is the water flow speed V.

Likewise, the total production is depended on two variables: one is the cross sectional area of the money flow in a unit of time, another one is the money flow speed V. Here we assume the AD is in a unit of time the total demand. G, I and C are the total government purchase, consume and investment in a unit of time.

Figure 6. Analysis on the flow volume of money in the economic system



In Keynes theory, Keynes brought in the concept of multiplier to represent the speed of money flow[1]. Here I will use the money flow speed as a new variable. So we have that the real total production is the Y=AD*V=(G+I+C)*V.

Apparently that if the Y is large enough, we will have that there will be enough income to support more jobs, so there will be less unemployment. In Keynes theory, Keynes used the Yf to represent the total production that can provide full employment.

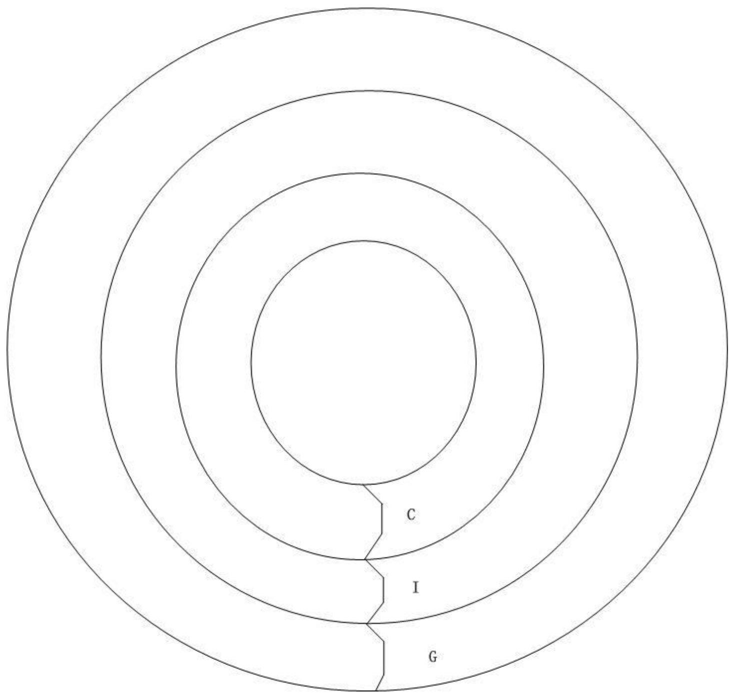
5. Analysis on why the stagnation would happen

Economic crisis is the situation when the C is very small, so the total demand AD is not enough. By using Keynes policy, the government try to increase the G and I, it will enlarge the AD. So the total production will enlarge. Y will increase.

If there is slight inflation, people consumption habit won't change, they will buy the same number of products in the market. So the total money flow volume will enlarge because the price of goods are enlarged, the AD is enlarged, so the Y is enlarged. There will be more job positions. That is the reason why slight inflation will provide more job positions.

If there is slight deflation, people consumption habit won't change, they will buy the same number of products in the market. So the total money flow volume will be smaller, the AD is smaller, so the Y is smaller. There will be less job positions. That is the reason why deflation will provide less job positions.

Figure 7. Three money flow circulation



But why the stagnation would happen? Here we can see, the government try to increase the AD by increasing the G and I by printing more money, by doing this, there will be serious inflation. It will inhibit people's consumption speed.

$Y=AD*V=G*V_g+I*V_i+C*V_c$, even G and I is enlarged, assume Vg and Vi stay the same, because of the inflation, the C and Vc are inhibited and decreased, if C and Vc decrease too much, the Y will be smaller compared to what it used to be, then there will be more unemployment. That is the reason why the stagnation and inflation happen at the same time.

Citation:
[1]. Intermediate Macroeconomics, Yan Zhang