

Market Whirling Theory

—A theory discusses topic about free market, currency circulation and economy movement

Chuanli Chen/陈传礼*

JEL: E2 E3

*Contact Information:

chuanlic@usc.edu

Home phone: 6265128818

Work Phone: 8184418167

Contents

1. Background Introduction	4
2. The discussion of the Paradox of thrift	4
3. Build basic model for my theory	7
4. The money flow under the invisible hand	8
5. Define basic processes for my model	10
6. Factors that cause the economy crisis	12
7. Drawback of the free market and the factors that lead to the economy cyclical changes	12
8. Re-define the multiplier effect	17
9. How a society become rich?	20
10. Types of Economy Crisis	23
11. Policies to rescue economy crisis	23
12. Application	24
1)How Keynes policies recover the economy?	24
2)How Japanese lost their ten years?	24
3)How Egypt goes into the economy plight?	25
4)Stagflation, how inflation and increase of unemployment happen at the same time?	25
5) Why China and Japan have the continual economy growth for 20 years or even 30 years?	25
6) Why Venezuela's economy goes into economy crisis?	26
13. Inference	26
Why couldn't equalitarianism?	26
Why there should be welfare?	26
Why we should fight against monopoly?	26
Why we should fight against fake products?	26
Why we should tax more toward rich people?	27
14. Summary	27
Reference	29

Abstract:

In modern world there are many theories which explain the economy crisis and economy cyclical changes, however, most of them are not so perfect to explain many phenomenon happened in the history. In this paper, I will put forward a new theory and model that can explain the economy crisis and economy cyclical changes as well as giving policies on how to avoid economy crisis. My paper will analyze the direction of currency flow in the free market and explain why the market is whirling all the time. It will also discuss the relation between money flow speed and GDP, explaining why accelerating the speed of money flow in the market can make a country rich.

Key word: GDP, visible hand, invisible hand, economy crisis, economy cyclical changes.

1. Background Introduction

As early as 1776, the famous England economist Adams Smith, he put forward a concept that was called the invisible hand. In his book *“the wealth of nations”*, he argued that in a free market, there existed one invisible hand, under its effect, people devoted themselves into the market activities. The society will spontaneously be prosperous.

“He generally, indeed, neither intends to promote the public interest, nor knows how much he is promoting it. By... directing that industry in such a manner as its produce may be of the greatest value, he intends only his own gain, and he is in this, as in many other cases, led by an invisible hand to promote an end which was no part of his intention. Nor is it always the worse for the society that it was no part of it. By pursuing his own interest he frequently promotes that of the society more effectually than when he really intends to promote it” [1].

But during the history of western countries, the free market couldn't avoid the economy crisis. In 1929 year, the stock prices fell sharply in the United States, then it developed into the Great Depression. This phenomenon challenged the status of the Adam's theory. *After that, the British economist Keynes put forward the visible hand, he claimed that the government should take over the market. They argued that the market was not perfect and the market should be under guidance of the government.* [2] Starting from that time, the quarrels between whether the market of one country should be governed by the government or one country should take the free market policy had been continued for nearly 100 years, which is the famous *“Fight of the century” between Keynes and Hayek.*

2. The discussion of the Paradox of thrift

The British economist Keynes firstly put forward the Paradox of thrift. *In his theory, he argued that individuals tried to save more, then the economy of a country would be falling; if individuals tried to spend as much money as possible, then a country would*

become prosperous. [2]

Following is a picture I draw to extend the concept of the Paradox of thrift.

Figure1: Money flow in a market

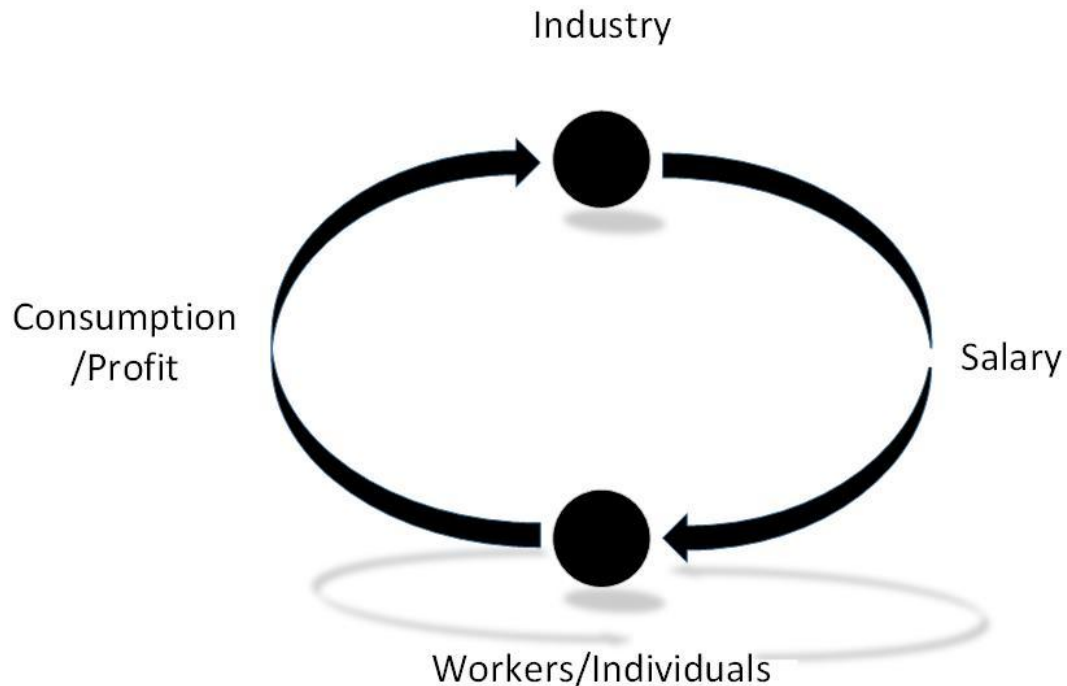


Figure 1 is about the circulation of money in the market. From this picture we could know that, when individuals spend their money, these money will be transformed into the profit of the industry, then the industry pay salary to the workers, individuals get these salary and use them in consumption. So together the whole process becomes a circulation. The money is flowing inside the circulation.

To move on, we need to clarify some confusing situations. By analyzing the revenue of the industry, we know that all revenue earned by the industry can be divided into three parts: its costs to build goods and services, its salary to workers inside, money earned by the entrepreneurs.

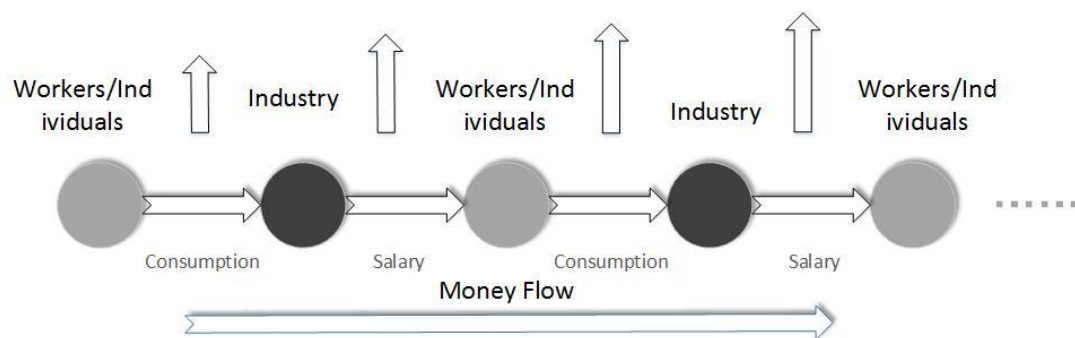
Considering the fact that entrepreneurs will spend money just like workers do, we can regard entrepreneurs as general individuals. They are a special kind of worker, but because here we mainly concentrate on the flow of money, we regard entrepreneur as general workers.

Toward cost part, we know that in general money flows from one industry to another industry. For example, when furniture factory buys wood from sawmill, money flows from furniture factory to sawmill just like money flows from workers to industry. Besides, after sawmill gets these money, they will give these money to workers and entrepreneurs inside sawmill, then workers and entrepreneurs will buy furniture from furniture factory. The money flow back and the whole process becomes a circulation, too. To simplify, we can treat furniture factory just as general individual consumers and sawmill here as industry.

Then we know that the market is a combination of innumerable money flow circles.

We can track the money flow process and draw the following picture.

Figure 2: The horizontal view of money flow



Firstly I define richness means in an unit time people could earn a lot of money, poorness means in an unit time people could hardly earn some money. Assume that in general in a society, **people(industry) who are rich prefer to spend money while people(industry) who are not rich prefer not to spend money**. We know that if individuals consumption increases, the profit of the industry will increase, then the salary paid to its workers(including entrepreneurs) will increase(or industry could open more positions inside), then individuals will be richer and their consumption will further increase. Likewise, if individuals consumption decreases, the profit of the industry will decrease, then the salary paid to staffs inside the industry will decrease(or industry could cut off positions inside), then individuals will be more

poor and their consumption will further decrease.

When individuals spend money, the more money they spend, the more profit the industry will get. Even the individuals are at the risk of having no cash, but to the society and the industry, they get the maximum benefits. When the industry pays salary to individuals, the more the industry gives, the more money the individuals could spend becomes more, even if the industry is at the risk of having no cash, it maximizes the benefit of the individuals and society.

From the Figure1 and Figure2 we could prove the Paradox of the thrift. We know that if one society wants to become rich, everyone should spend more money to maximize the benefits of the industry, meanwhile the industry should pay as much money as it could to make this process be able to continue.

3. Build basic model for my theory

Here I will build my models.

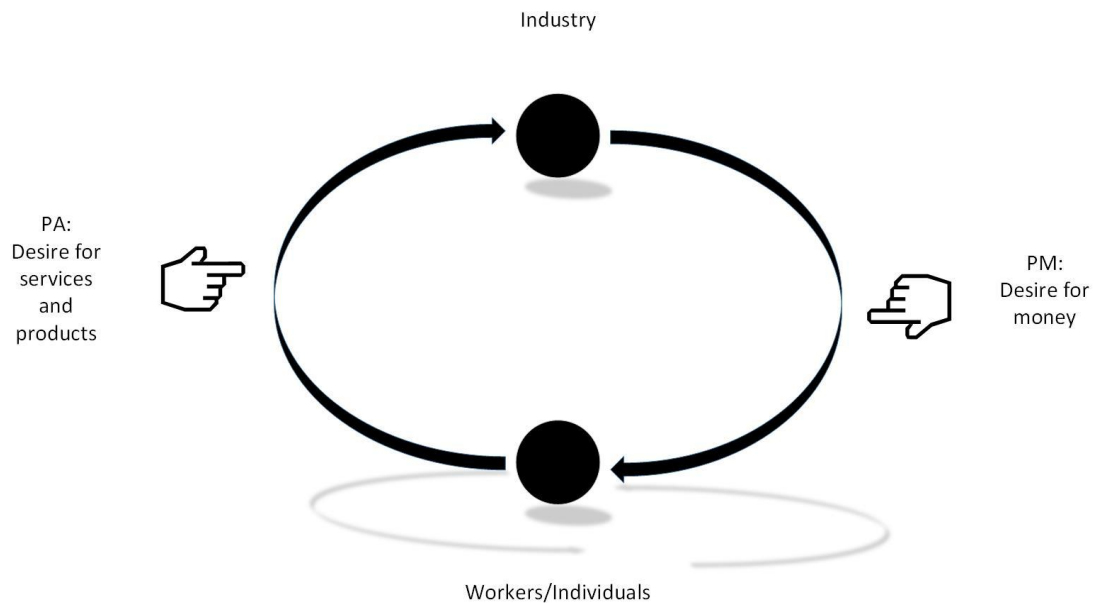
I define:

Invisible hand is the demand or desire of individuals, name it symbol P.

Invisible hand at supply is the need or desire of individuals toward money, name it symbol PM.

Invisible hand at demand is the demand or desire of individuals toward goods and services, name it symbol PA

Figure 3: Money flow under the effect of the invisible hand



According to Figure 3, we could know that, under the effect of the invisible hand at supply, individuals demand for money, or PM, individuals devoted themselves into industry producing activities and jobs, then they form the force of supply. Under the effect of invisible hand at demand, individuals demand for goods and services, or PA, individuals pay money to industry and get goods and services, they form the force of demand.

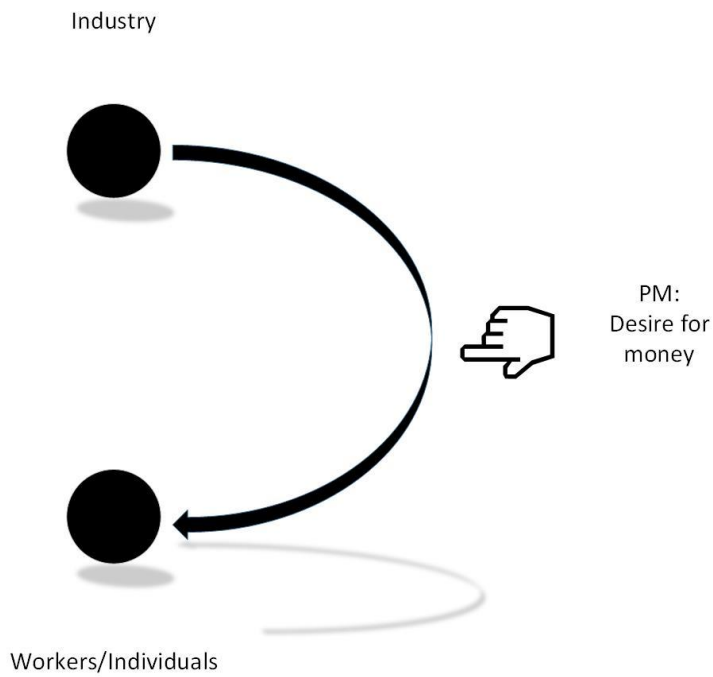
Under the effect of PM, money flows from industry to individuals, the process maintains the existence of employment.

Under the effect of PA, money flows from individuals to industry, industry gets revenue while goods and services flow to individuals.

4. The money flow under the invisible hand

I will draw picture to show how money flow under the force of invisible hand

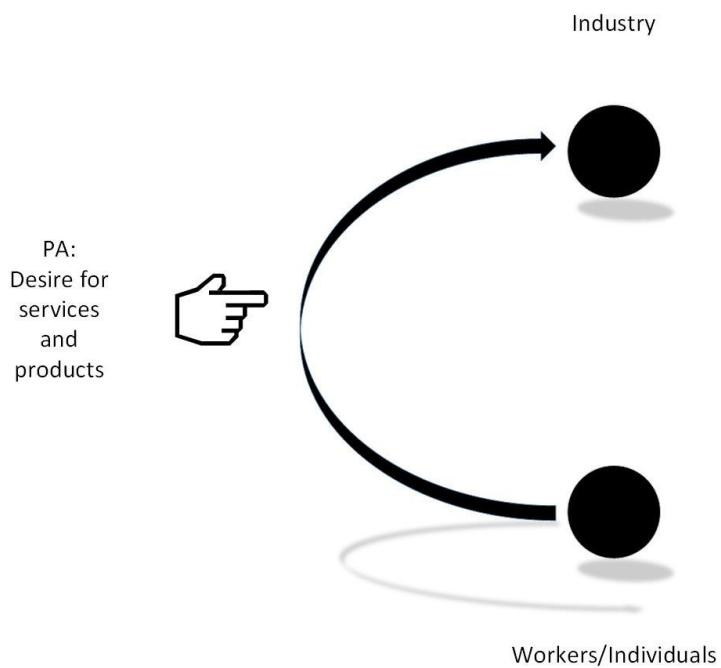
Figure 4: Money flow under invisible hand PM



State 1.

Money is at industry, which hires people to produce goods and services. Under the effect of people's desire to earn money, money flow from industry to individuals..

Figure 5: Money flow under invisible hand PA



State 2.

Money is at the individuals, individuals they have desire and they want to satisfy their desire, so they use money to buy goods and services. Under the effect of people's desire to spend money, money flows from individuals to industry.

Money is whirling in the circle.

5. Define basic processes for my model

From previous analysis we could conclude that there are 3 basic money flow processes during the economy circulation. All others are the combinations of them.

We define the Total Salary is in one moment the total salary(including workers salaries and entrepreneurs salaries) given to individuals from the industry in the market, the Total Consumption is in one moment the total consumption made by all individuals(including workers consumption, entrepreneurs consumption and industry costs) to buy goods and services from industry in the market.

We assume that there is an Equilibrium Total Salary (ETS) and Equilibrium Total Consumption(ETC) which are the critical point to determine whether all the individuals and industries are rich or not, or we can say at the ETS and ETC, people are neither poor or rich, they will keep their consuming habit. Considering the prerequisite *“people(industry) who are rich prefer to spend money while people(industry) who are not rich prefer not to spend money”*, we have:

1) We assume that the Real Total Salary is ETS and the Real Total Consumption is ETC, we have this called the Equilibrium State(ES), under this state, the industry total profit will not change, the Real Total Salary will not change, the Real Total Consumption will not change, the circulation continues without changing. The money flows inside the circulation without any speed and volume change.

2) Positive Feedback

We assume Real Total Consumption is above ETC and Real Total Salary is above ETS, we have that the industry profit will increase, then the industry can offer more positions or pay more salary, so the Real Total Salary will increase, the increase of Real Total Salary(RTS) will lead to the increase of the money hold by

individuals, then Real Total Consumption further increases, the circulation continues while RTC and RTS keep increasing to reach the maximum limit of the productive forces. Money flow speed keeps increasing inside the circulation.

3) Negative Feedback

We assume Real Total Consumption is below ETC and Real Total Salary is below ETS, we have that the industry revenue will decrease, after that, the industry will cut off jobs or give less salary. Then the total salary decreases, individuals get less money and Real Total Consumption further decreases, the circulation continues while RTC and RTS keep decreasing to a very low volume which just meets basic need of people in the market. The money flow speed is getting slower and slower then keep a very slow speed.

From previous analysis we could know that the movement of money inside market is a circulation, so it is possible that this circulation can be interrupted. If the flow of money in the market is interrupted, we could speculate that it is possible an economy crisis occurs.

Here I set two thresholds which are the critical point to interrupt the circulation of the money inside the market.

1. The critical total salary p_c .

When RTS is below the critical salary p_c , we have that the salary paid to individuals is unable to make RTC big enough. Then the industry will even not profit, it will cut off jobs or even go bankrupt. The circulation will be interrupted. Under this salary value p_c the money can't move along the path in Figure 2 and the economy crisis comes.

2. The critical total consumption c_c .

If the RTC is below c_c , there is nearly no money flow from individuals to industry, the industry will cut off jobs or even go bankrupt, then there is no money flow from industry to its workers. Then we could know that under this consumption value c_c the society will develop into a economy crisis.

To summarize, p_0 and c_0 are the values that can't make the circulation of money continue, they are values that lead to an economy crisis.

6. Factors that cause the economy crisis

From previous conclusion, we know that if the RTS is below p_0 or RTC is below c_0 , the economy crisis may occur. Based on this, we can get following:

All factors that could result in the discontinuation or interruption of the money circulation in the free market are the factors that lead to an economy crisis. Then we know that factors could be:

- 1) Most of people stop working, like going on strike. When this happen, the Real Total Salary is below p_0 and PM (individuals' desire for money) is no longer there. The invisible hand is destroyed.
- 2) Most of people stop consumption. When this happen, the Real Total Consumption is below c_0 and the PA (people's desire for products) is no longer there. The invisible hand is destroyed.
- 3) Natural disaster which could destroy both PA and PM, people are dead so there is no PA and PM.
- 4) The economy crisis caused by free market its own drawback(I will discuss this later)

And so on.

From these conclusions we could know that the economy crisis is unpredictable because there are many factors which could cause the money circulation stopping. These factors are unpredictable. What we could know is that some factors have a high possibility to cause a economy crisis, like a huge tsunami.

7. Drawback of the free market and the factors that lead to the economy cyclical changes

Here I will mainly discuss how the free market develops from normal into the

economy crisis due to its own drawback and the reasons for economy fluctuations.

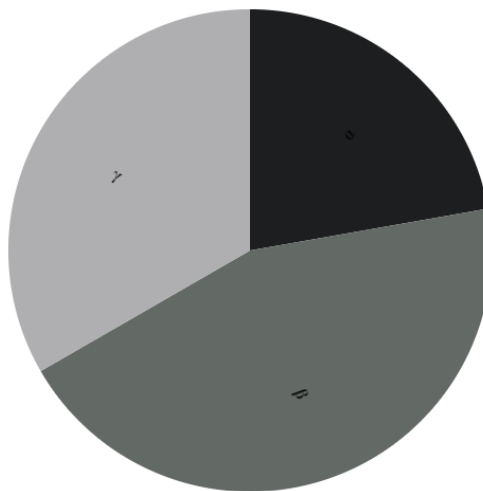
From the previous model we could know that once the Real Total Consumption is below the threshold c_0 , then the money circulation in the free market will be broke up. The economy crisis will come.

In a free market we know that individuals take part in different kinds of activities, like starting a business, like investing, like gambling, like stock trading. During these activities, some people may earn money, some people may lose money. So the money is flowing among different kinds of people.

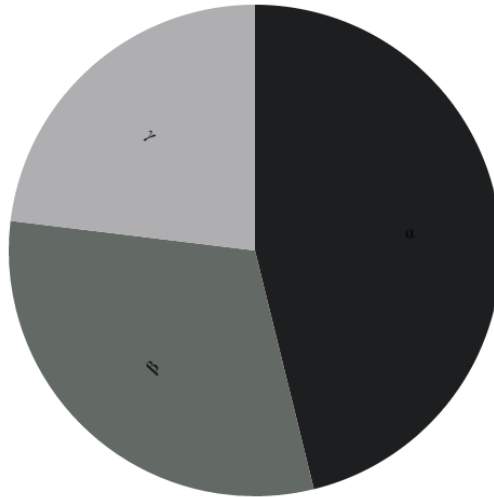
Assume that there are many groups of people, α , β and γ ... (α , β and γ could be industries which spend money as the costs) All of them form the market, sometimes α owns more money, sometimes β owns more money, sometimes γ owns more money...

Figure 6: Money distribution

Money distribution: β owns more money



Money distribution: α owns more money



Besides, we can know that people who earn more money may not spend the money. People who lose money may spend the money. Some people may even borrow money to spend.

Here we define the variable TC (Total Consumption), that is at one moment the total money spent by the whole groups of people in the free market, we could know that in a short time, the TC is an stable variable because the money distribution is not changing too much. But for a long time, TC will change because of the flow of the money. We could know that when TC is decreasing, the GDP goes into the trough; when TC is increasing, the GDP goes into the crest; and if the TC is below c_0 , the market goes into the economy crisis.

We assume that α will spend $r*100\%$ of all their money, β will spend $s*100\%$ all their money and γ will spend $t*100\%$ all their money, we have

$$TC = \alpha * r + \beta * s + \gamma * t \dots$$

From the formula we could know that the TC is always changing because the money distribution is always changing. Besides, r , s and t may change, too. But to simplify our analysis, we assume compared to money distribution, r , s and t is not changing too much. As α increases, the $\alpha * r$ also increases, and vice versa, which meets our basic assumption: ***“people(industry) who are rich prefer to spend money while people(industry) who are not rich prefer not to spend money”***

Here I will use an example to illustrate my theory.

We assume there are just three groups of people: α , β , γ .

α will always spend all money they have, that means $r=1$;

β will always spend half money they own, that means $s=0.5$;

γ will never spend money, that means $t=0$;

We have total money volume 3 unit in the market,

1) Situation 1.

From the starting point every group has money volume 1

We have the Total Consumption:

$$TC=1*1+1*1/2+1*0=1.5$$

2) Situation 2.

Because of the commercial trade and competition, β earns all money α has, so β has money volume 2. We have the Total Consumption:

$$TC=0*1+2*0.5+1*0=1$$

Here is the economy trough.

3) Situation 3.

Because of the commercial trade and competition, α owns all money β has, so α has money volume of 2. We have the Total Consumption:

$$TC=2+0*0.5+0*0=2$$

Here is the economy crest.

4) Situation 4.

Because of the commercial trade and competition, β owns all money α has, we have the Total Consumption:

$$TC=0*1+2*0.5+1*0=1$$

Here is the economy trough.

5) Situation 5.

Because of the commercial trade and competition, α owns all money β has, so α has money volume of 2. We have the Total Consumption:

$$TC=2+0*0.5+0*0=2$$

Here is the economy crest.

6) Situation 6.

Because of the commercial trade and competition, γ owns all money α and β have, we

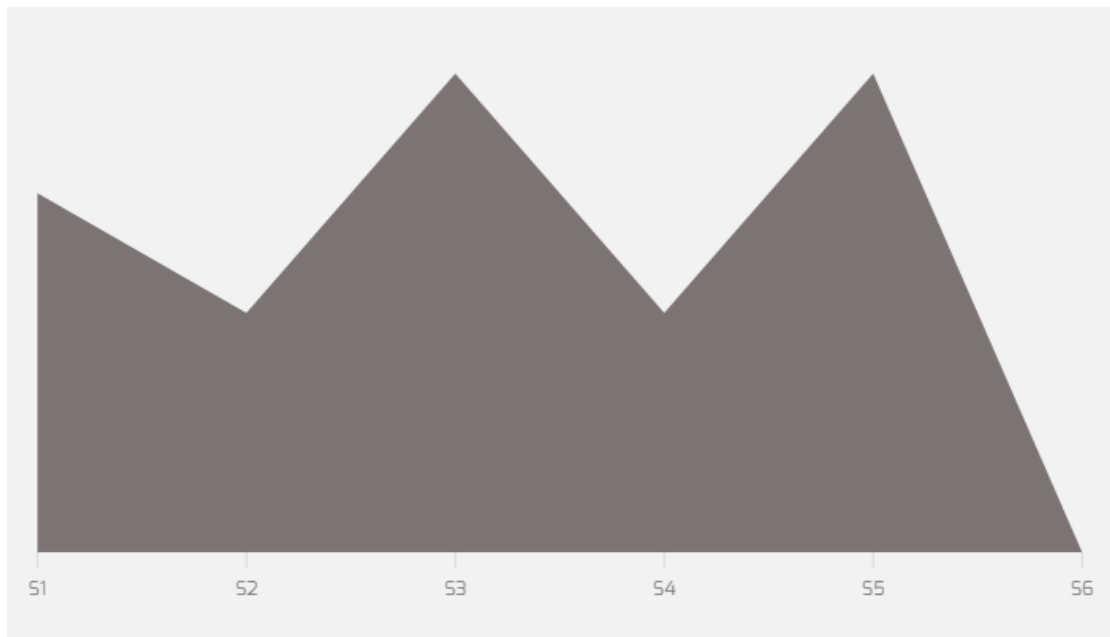
have the Total Consumption:

$$TC=0*1+0*0.5+0=0$$

0 is below the c. , here is the economy crisis.

We have picture like following:

Figure 7. Total variation



From our analysis, we could know that the TC is a transient variable. In real world, the GDP is the integration of TC with respect to time. So we know that toward GDP, we should also consider the consumption speed.

So we have:

$$dGDP=\alpha*r*u+\beta*s*v+\gamma*t*w\dots$$

u, v and w are the consumption speed of α , β and γ

$r*u$ is the consumption habit of α , $s*v$ is the consumption habit of β and $t*w$ is the consumption habit of γ .

So we have:

$$GDP=\int \alpha * r * u dt+\int \beta * s * v dt +\int \gamma * t * w dt\dots$$

$$=\sum_i \int \alpha_i * r_i * u_i dt,$$

α_i is the money volume of i , r_i is the consuming habit of i and u_i is the consuming speed of i , i is one customer in the market, i ranges from 1 to ∞ .

Then we could draw the conclusion that:

The reason for economy cyclical changes is that due to cyclically variation of money distribution and people's consuming habit, the Total Consumption cyclically changes.

The mechanism how a free market develops into an economy crisis is that because of the flow of money, the total consuming ability is changing, when it comes to a situation that people who have money don't spend money, people who want to spend money don't have money, then they could not satisfy their need. The PA (people's desire for goods and services) are impaired, there are nearly no money flow from individuals to industry, then the Real Total Consumption is below c_0 , the market goes into economy crisis.

8. Re-define the multiplier effect

There are so many deficiencies in the definition of the multiplier in modern economy area. Modern economy introduces this concept to describe the relation between investment and total national income. *Keynes believed that any injection of spending created a proportional increase in overall income for the population, since the extra spending would carry through the economy.* [2] But Keynes didn't point out why this would happen. According to my theory, "*any injection of spending created a proportional increase in overall income*" would happen because that any money spent in the market will go into the circulation in Figure 1. The increase of the total GDP is not because of the money's own effect but the outcome of the money whirling in the free market. Besides, GDP is a time related variable, Keynes didn't take this variable into his formula. For a country, its GDP for 1 year is different from its GDP for 1 month. So we must introduce this variable for better comparison.

In Keynes' book "The General Theory of Employment, Interest, and Money", Keynes put forward a new equation $Y=I/(1-b)$, Y is the income, I is the investment and MPC(marginal propensity to consume) is the b

*In his theory, he has equation $dY=k*dI$, $k=1/(1-b)$. That means any change in income will be k times the changes in the new investment. k is the multiplier.* [2]

Here we assume if the money in the new investment flows in the circulation for unlimited time without any loss, the change in the income will be unlimited.

So ignoring the time variable is the deficiency of Keynes' theory. Besides, it ignores another variable, that is the money flow speed in the market. (The money flow speed is not the physical moving speed in physics, but the speed of money position change between industry and people)

Considering the fact that the k or multiplier shows the relation between the income and the spending. I define the new multiplier like following:

Changes in the income dY, is determined by the money flow speed (money whirling speed), time duration and changes in Total Consumption dTC.

A thorny issue here is that people usually don't spend money at the same time, we can transform asynchronous spending made by all individuals in the market to a approximate synchronous spending made by all individuals in the market. Or we can say, if most of individuals get money and spend only some part of it instead of all of them, we can transform this situation to a situation that all individuals spend all money at a very slow average speed. If most of individuals get money then spend all of them at once, we can regard this situation as a situation that all individuals spend money at a very high average speed. Or we can see, we will group different kinds of people together and get their average consumption speed, so each independent part of " $\alpha * r * u + \beta * s * v + \gamma * t * w \dots$ " will be processed together, or we can say, we will analyze the issue from a macro view.

Assume that the change of total money consumption is +5000\$, time duration is 2 month and money flow speed is that all money in the market will whirl in the circulation once every half month (1r/0.5month).

We have that the total change in the income dY

$$dY = 5000\$ * 2\text{month} * (1/0.5)(r/\text{month}) = 20000\$$$

We have that the total income increase is 20000\$.

Then

$$k = dY/dTC = 20000/5000 = 4$$

We can infer if the time goes into unlimited, we could have that the k is unlimited.

$$\lim_{t \rightarrow \infty} k = \infty$$

Here money is whirling in the circulation for infinite time.

So we have k is determined by the time duration t (Unit: month) and money flow speed w (Unit: r/month)

So here is the formula:

$$k = t * w$$

$$dY = k * dTC \quad [dTC \text{ is the change in total consumption}]$$

$$dY = t * w * dTC$$

From this equation we could have that:

Given fixed time t, we know that the income increase is mainly depended on the w, which is speed of money whirling in the market, so here I put forward a conclusion:

If money flows faster in a society in commodities and services industry (Not financial industry), that society will be richer. And vice versa.

As dTC is the amount of money, w is the speed of money flow. So we could conclude that

1. the Negative Feedback is the process that the amount and speed of money flowing is gradually going down.
2. the Positive Feedback is the process that the amount and speed of money flowing is gradually going up.
3. the Equilibrium State is the process that the amount and speed of money flowing is staying the same.

Of course, the Equilibrium State is usually an ideal situation((It happens some time, think of Japan, its GDP has remained nearly the same for 10 years. So Japan now is in the Equilibrium State.). in real world, the economy often vibrates between Negative Feedback and Positive Feedback, it depends on the Real Total Consumption and the Real Total Salary. I introduce the concept Equilibrium State in order to distinguish the

Negative Feedback and Positive Feedback.

“people who are rich prefer to spend money while people who are not rich prefer not to spend money”, that is the reason for the Negative Feedback and Positive Feedback.

GDP equation

$$GDP=t*w*TC$$

t is the time duration, w is the whirling speed of the money in the market, which is determined by both the speed of people’s consuming and the speed of salary giving from the company, TC is the transient amount of total consumption in a market.

Let’s assume the money flow speed from individuals to industry is W_a , the money flow speed from industry to individuals is W_m

We have that the

$$w=\min(W_a, W_m)$$

So we have the final Equation for GDP for a period of time t

$$GDP=t*\min(W_a, W_m)*TC$$

Considering the fact that w and TC are not constant value in the real world, we use calculus to show the equation for

$$GDP=\iiint f(t, w, TC)dtwdTC.$$

9. How a society become rich?

In order to become rich, one society should make the most use of the invisible hand, toward the invisible hand at supply, we need industry to give salary to individuals as fast as possible, besides, we need to enlarge the productive forces. By using machine or new technology, we can enlarge the productive forces to a higher level. Besides, toward the invisible hand at the demand, every one should spend money as fast as he or she can. The faster the money flows, the richer the society will be.

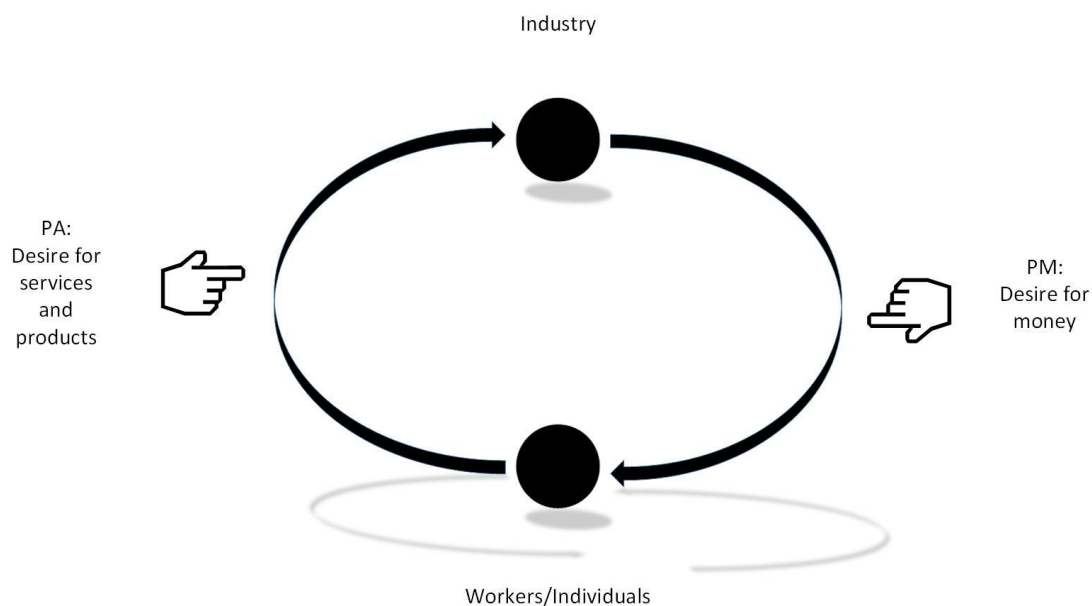
From the previous GDP equation $GDP=t*w*TC$, we know that the GDP is related to

the money whirling speed w .

I will use the following example to illustrate this conclusion.

Assume that we have a monopoly market, only one industry and one employee(entrepreneur, a people could hire himself or herself). The employee(entrepreneur) is also the only individual consumer in the society. There is no costs in this business activity.

Figure 8



1) We assume industry pay all its money as monthly salary to the employee and the employee spends all money once he or she gets the money.

Assume there are 1000\$ in the market, we have that in one year,

the employee total salary is $12\text{month} \times 1000\$/\text{month} = 12000\$$;

the industry total revenue is $12\text{month} \times 1000\$/\text{month} = 12000\$$;

2) We assume that industry each time only pay 50% of its all money as monthly salary to the employee and the employee spends all money once he or she gets the money., we have that in one year,

the employee first month salary is $1000\$ \times 50\% = 500\$$

the industry first month revenue is 500\$, and it has 500\$ in hand, total is 1000\$, it pays 50%, so the second month salary of the employee is 500\$

Then we have that the total salary of employee in one year is $500\$/\text{month} \times 12\text{month} = 6000\$\text{}$

The total revenue of the industry is $500\$/\text{month} \times 12\text{month} = 6000\$\text{}$

3) We assume that industry each time pay all of its money as salary to the employee, employee only spend 50% of his or her own money, we have that in one year,

The employee first month salary is 1000\$

The industry first month revenue is 500\$, the employee second month salary is 500\$, then the employee has 1000\$ total, he or she spends half of the whole money, then the industry second month revenue is 500\$

We have the total salary is $1000\$ + 11\text{month} \times 500\$/\text{month} = 6500\$\text{}$

We have that the total revenue for the industry is $500\$/\text{month} \times 12\text{month} = 6000\$\text{}$

4) What if the industry pays 1000\$ every half month, and employee spends all money as soon as he or she gets the money? (Assume the productive forces can reach this consuming speed or the price of goods in the market doesn't change)

We will have that the total salary of employee is $1000\$/\text{month} \times 12\text{month} \times 2 = 24000\$\text{}$

And the total revenue of the company is the same 24000\$

So we have that if money flows faster in a society, that society will be richer. Industry will have more revenue and individuals will have more salary.

So for a country to become rich, the most important thing is not save what you have produced but to work to produce as much as you could, and make what you have produced to flow to demand as fast as it could. That illustrates the Paradox of Thrift.

So we could know that what could really adjust the economy is not the government policies, but the money flowing speed in commodities and services industry, which is determined by the invisible hand PA and PM, or Real Total Salary and Real Total Consumption, or we could say all people's behaviors in the market.

Why the Keynes policies works is that when economy crisis happens, people who

have money don't spend money, people who want to spend money don't have money. By printing money and giving money to people who lack money to spend, government recovers the total consuming ability. It enlarges the amount of money flow from individuals to industry, then the Keynes policy recovers the economy.

10. Types of Economy Crisis

Here are different kinds of economy crisis:

Spontaneous Economy Crisis

The reason for the spontaneous economy crisis is that due to business activities, the flow of money, there is a chance that the Real Total Consumption is below the threshold c_0 , then the invisible hand at demand or PA is destroyed, people could not buy goods and services because they don't have money, the circulation of economy couldn't continue.

General Economy Crisis

The reason for general economy crisis is due to various kinds of factors, the invisible hand(PA and PM) and the money circulation in the free market is destroyed or interrupted.

11. Policies to rescue economy crisis

Firstly I will claim that the duty of the government(visible hand) during the economy and economy crisis is to recover or enlarge the effect of invisible hand.

The policy toward economy crisis:

1)Toward general economy crisis, what we should do is to recover the PA and PM, that is recover the invisible hand, so we should recover the supply and demand forces on both sides. Like recovering the productive forces, encouraging people to spend money.

2) Toward the spontaneous economy crisis in the free market, there are two situations:

1)) Spontaneous economy crisis without inflation, we can print money and give the money to the one who lacks it. Like in the example, we printing money then transfer consuming ability from γ to α and β , we recover the consuming ability then the Real Total Consumption is certain value above c_0 , we make the economy circulation work again.

2)) Inflation itself can cause the RTC below c_0 , when inflation happens, the price of commodities is high and the money owned by general people is not too much, people don't want to spend money, then an economy crisis may happen. Toward this kind of economy crisis, we can make use of invisible hand to recover the economy. That is the industry or the government try to find a way to make a lot of money flow from industry into individuals, like encouraging industry to try to give more salary, while encouraging people to try to spend as much money as they can. When the economy goes into the regular circulation state or even the Positive Feedback, the society will recover to become prosperous.

12. Application

I will use my theory to explain some phenomenon here.

1) How Keynes policies recover the economy?

In Keynes policies, the government invests and builds public constructions by printing money. During these process, the employment rate increases, so Real Total Salary increases, and because the government creates consumption, the Real Total Consumption enlarges. So both RTS and RTC have been enlarged, the circulation is pushed back to regular movement. So why Keynes policy works is because it uses the visible hand to recover the invisible hand PA and PM, the RTC and RTS.

2) How Japanese lost their ten years?

The lost decade is a phenomenon happened in Japan. After the real estate bubble burst

in 1990s, the country suffered from the economic slump. And it lasted for 10 years. From my theory, we could know that because of the free market drawback, the economy crisis happened in Japan, from then on that country went into the stage of Negative Feedback.

The Japanese government built large constructions which increased the RTC and RTS, but because there were more money in the market, there was an inflation. So the consuming ability of the general people was inhibited because of the high price (There is another factor, East Asian countries usually have a culture that claims frugality). When the government constructions were finished, there were no job positions, RTS would decrease. And RTC would decrease because there was an inflation and the fake need created by the government was no longer there. The economy went back to Negative Feedback, the unemployment rate increased again.

3)How Egypt goes into the economy plight?

After 2008, due to the economy crisis of the United States, the inflation happened in Egypt. People's saving lost their value while price of goods was extremely high. People preferred not to spend money. So the RTC was decreasing, then the profit of industry decreased, in order to survive, the industry cut off jobs, so Real Total Salary decreased, the economy went into the Negative Feedback.

4)Stagflation, how inflation and increase of unemployment happen at the same time?

When the government takes Keynes policy, there is too much money in the market, so there maybe an inflation. After the policy, because of the inflation, the price of commodities are extremely high, which impairs people's consuming ability, so the Real Total Consumption will decrease. The profit of the company will decrease, the economy goes into Negative Feedback, there will be more unemployment. Finally inflation and increase of unemployment happen at the same time.

5) Why China and Japan have the continual economy growth for 20 years or even 30 years?

It is just because their economies go into the stage of a continual Positive Feedback.

6) Why Venezuela's economy goes into economy crisis?

Because Venezuela's industry is mainly depended on the oil. When the oil industry was replaced by other forms of energies, the invisible hand PM of the Venezuela was destroyed. So there was no way for money flow from industry to the individuals, the Real Total Salary was below p_0 , then the circulation was interrupted and the country went into the economy crisis. In order to avoid this kind of economy crisis, one country should have many forms of industries, even if some industries were destroyed, there are other ways for money to flow from industry to individuals.

13. Inference

Why couldn't equalitarianism?

Equalitarianism will let people lose interest in making money so the PM and productive forces will be impaired. Because PM is impaired, supply will be impaired, which is harmful for the economy.

Why there should be welfare?

Because modern society, the productive forces are too high, so productive forces are not working all the time, by giving welfare, we enlarge the Real Total Consumption(Welfare will make more people spend money). Then RTC is enlarged, which is good for economy.

Why we should fight against monopoly?

In a none monopoly industry, because there are competitions, different companies try to modify the products and services to win the market. So there will be products and services innovation. The society will always be in progress.

Why we should fight against fake products?

People are not willing to buy fake products, if a society has a lot of fake product, people are not willing to spend money because they don't want to buy fake products. So the RTC will decrease, the money circulation speed will be slow down and impaired.

Why we should tax more toward rich people?

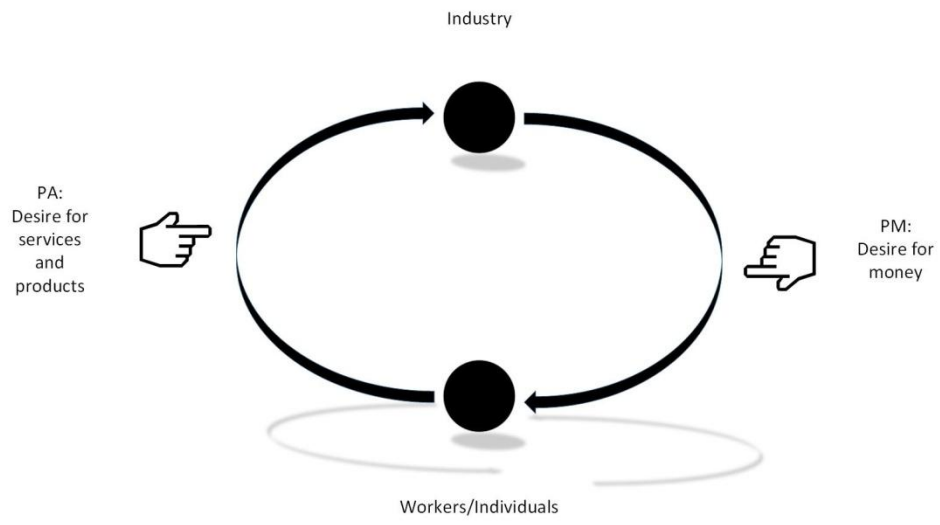
Middle class and poor people usually spend nearly all money they earn. Rich people they usually don't spend all money they earn and they don't speed money fast. So we should tax more toward the rich people and make this part of money flow into the market.

14. Summary

PA(Invisible hand at demand, the demand or desire of individuals toward goods and services

) and PM(Invisible hand at supply, the need or desire of individuals toward money) are just like two engines for the economy, all other factors influence the economy by influencing these two factors. PA determines volume and speed of money flow from customers to industry while PM determines volume and speed of money flow from industry to customers. Together they determine the money flow speed in a society or how rich a society will be. Under these two engines, the economy wheel whirls, the faster the wheel whirls, the richer the society will be. If it doesn't whirl, there will be the economy crisis.

Figure 9



Reference

[1] **Adam Smith**, The Wealth of Nations

[2] **John Maynard Keynes**, The General Theory of Employment, Interest and Money