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Explore the per capita GDP gap between China and developed countries

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Abstract. With the status of China in the world and the continuous growth of China's GDP, we can see a problem: in the developed countries, the per capita GDP is high, the price level is high; In developing countries, the per capita GDP is not high, the price level is low; In view of the gap between China and developed countries, the annual wage gap between Chinese taxi drivers and American taxi drivers is further explored. By exploring why there is such a big gap between China and developed countries, the paper recognizes the efforts that China can make in improving its per capita GDP. It is found that countries with high per capita GDP also need to have strong high-tech industries. In general, it is also necessary to recognize that the per capita GDP gap between China and developed countries exists but is narrowing, and China is moving toward the level of developed and rich countries.

Keywords: per capita GDP, China and developed countries, gap.

1. Introduction

Since the reform and opening up, China has been increasingly active in the world market, and under the trend of globalization, it is more active in opening up the world market. China's status in the world market has been rising, and it is playing an increasingly important role. In recent years, China's gross GDP and per capita GDP have been rising, but there is still a large gap with developed countries in the world, that is, there is also an income gap with developing countries. Compare the gap between China and developed countries, on the one hand, in developed countries, per capita GDP is high, the price level is also high; In developing countries, per capita GDP is not high, but price level is low; Why do countries with higher per capita GDP have higher price levels?

When this question is raised, it also raises another doubt. Isn't it actually contrary to absolute purchasing power parity? Under PPP, the exchange rate of two countries is supposed to be equal to the ratio of the price level of the two countries, so that the price of the same goods in both countries is the same. But why the deviation from PPP? The law of one price, as the basis of PPP, is closely related to PPP. The law of one price is specific to the situation of a single commodity, so it is pointed out to explore the reasons.The law of one price is sometimes true and sometimes not true in reality. It's not hard to find examples of gold, oil, and luxury goods as examples of the law of one price. Houses, transportation, and haircuts can also be taken as examples where the law of one price is not true. To put it simply, the law of one price holds for most traded goods in international transactions, while the law of one price does not hold for most non-traded goods. In theory, by definition, the law of one price states that in a competitive market without transport costs or official barriers, the same goods sold in different countries should have the same price in the same currency. In other words, the law of one price holds that goods should have the same US dollar price/China price, etc., wherever they are sold, otherwise arbitrage will occur, that is, if the currency is bought in a relatively cheap currency center, then the currency sold in a more expensive currency center can make a profit. Chapter 14 Foreign Exchange Markets and Exchange Rates: Arbitrage

2. Organization of the Text

In fact, in reality, there is no free competition market under the theoretical assumption, and there are many factors, such as government policies, trade barriers, market monopoly/regulation, tariff quotas. Generally speaking, the trade barriers and market monopoly of developed countries do exist and are lower than that ofdeveloping countries. In terms of government tax revenue, there is no obvious evidence that the tax revenue of developed countries must be higher than that of developing countries, so why is there a high price level situation? Then this can remove the influence of trade goods. Whether it is the impact of non-trade goods, we can expand the analysis:

Some people say that hard labor in China is better than working in an American restaurant; Driving a taxi in the United States, the annual income is 60,000 to 100,000 US dollars, driving a taxi in China is about 10,000 yuan a month, the annual income is about 120,000 yuan. In other developing countries, it might be $10,000; What accounts for the gap? It is clearly not due to differences in driving skills between countries. The higher the productivity of the tradable sector in the US itself as a high-income country, the higher the non-tradable sector wages in the US. This can be explained by the Balassa-Samuelson effect. This gap occurs when both of the following assumptions are true. The first assumption is that there are two sectors of the economy, a tradable sector and a non-tradable sector. The price of tradable goods that can be circulated internationally is determined by the international market, while the price of non-tradable goods is determined by the domestic market. The second assumption is that labor flows freely between the two sectors. Then,if hypothesis 1 and 2 are true, it follows that for developed countries, the higher the productivity of the tradable goods sector, the higher the wages of workers in the tradable goods sector will be. With free movement of Labour, wages in non-tradable goods will rise and prices in the non-tradable goods sector will rise. This would explain the non-tradable sector (i.e., the high income of taxi drivers) in the United States. The overall price level is made up of tradable and non-tradable goods, with one driving the other up.

In fact, the above research on the income gap between Chinese taxi drivers and American taxi drivers is a microcosm of the income gap between China and the United States. It is also the current situation of low per capita GDP and low price level in China.

According to the International Monetary Fund, the per capita GDP of the global economy in 2021 is 96.29 trillion US dollars and 125.2 million US dollars respectively. Among them, the economic size of developed countries is as high as 5.609 billion US dollars, accounting for 58.25% of the global total. The remaining US $40.2 trillion was generated by many developing countries, accounting for 41.75% of the global total. In 2021, as a developing country, China's economic scale will exceed US $17 trillion, and China's per capita GDP will exceed US $12,000, twice the per capita level of developing countries. And this result is not only beyond the usual developing countries such as India and South Africa, but also beyond the previous developing countries with a higher standard of living than our own, such as Russia and Malaysia. This also shows that there is a difference between China and other developing countries in terms of per capita GDP. If China's per capita GDP were to be excluded from them, the economies of other developing countries would be much smaller. In other words, the global economy is unbalanced and becoming more unbalanced.

From the above perspective, China is at the center of the balance board, with a per capita GDP gap compared to both developed and the rest of the developing world. According to the currency swap ratio/relative price of the two countries, that is, China (a developing country) and the United States (a developed country) at the market exchange rate, the United States is still the largest country in the world. China exceeded 10,000 US dollars in 21 years, and the per capita GDP of the United States has already reached 6.5 trillion US dollars. In terms of purchasing power parity, China is the world's largest economy; As mentioned earlier, if the law of one price holds true for all goods, then PPP holds as long as the benchmark basket used to calculate price levels in different countries is the same. China's total GDP is higher than that of the United States under the PPP method. In fact, the two are different from the US statistical method. The US GDP calculation takes into account real estate rents, etc., while China does not. The contradiction and conflict between the two have brought uncertainty to the world.

It is undeniable that China and the United States (developed countries) are different in terms of per capita GDP and total GDP. We should always be aware of the fact that China's per capita GDP is low. When will the conflicts between these two countries be resolved and the world pattern become more stable? This should be linked to changes in China's per capita GDP.

Per capita GDP represents the average level of labor force, and when China's per capita GDP keeps rising, it also means that the level of labor force keeps rising. When China's average labor force level is the same as that of developed countries such as the United States, there will be no incidents such as the supply cut off to Huawei. To judge China's future development potential, the most important thing is not to look at the absolute income level, but the per capita GDP gap between China and developed countries. Second, trade is win-win. International transactions in which residents of one country exchange goods, services or assets with residents of another country are by no means uncommon under today's global trade. Small economies benefit much more than large economies. When China's total economic size is larger than that of developed countries and its per capita GDP is growing, trade will bring even greater advantages to the developed countries with small economies. It is not absolute that trade is win-win here, and the problem of global trade imbalance often arises. As the world's largest trade deficit country, the United States spends all its income on consumption, which means it has a low savings rate and a high fiscal deficit ratio. So its trade balance is getting worse and its trade deficit is getting worse. The situation in which China has a trade surplus and the US has a trade deficit still exists. Chapter 13 Balance of Payments: International Transactions and the U.S. Trade Deficit

Then, to continue to explore why there is such a big gap between China and developed countries, I think there are mainly the following two points.

As mentioned earlier, China's GDP is very large. The reason why China has such a big gap with the developed countries is also due to the large Chinese population in the vast territory of China and the extensive labor market. However, China's large population also restricts its per capita GDP, and on average, China loses its advantage. If China's per capita GDP reaches the level of a developed country like the United States, and China's population is more than three times that of the United States, China's GDP will be more than three times that of the United States. However, if China surpasses developed countries, such as the United States, in terms of total volume, this is not the direction of efforts, but the direction of increasing per capita GDP.

The high per capita GDP of developed countries can be seen as a sign that developed countries are richer than developing countries. Developed countries are called developed countries, which is generally related to the high-tech industry of the country itself, or the country's per capita resources are abundant, and the innate resources can also be compared with rich technology. Here, from the high-tech industry of developed countries to elaborate:

For A country A, whether developed or developing, if money keeps pouring into the country, it does not mean that the country is getting richer. On the contrary, it may cause inflation. This is because if the rate of money entering is greater than the rate of money going out, there will be more and more money in country A, and the income and price level of people in country A will rise, but they have no purchasing power. Obviously, this is not wealth.

There are international transactions in the world, and the price of country A rises, but the price of other countries may not be as high as that of country A. When the products of other countries enter Country A and want to sell at A high price to seek profits, as A large number of cheap products flood into country A, the price of country A will drop and the purchasing power will increase.

A simple conclusion can be drawn from one or two: high wages and high prices can acquire other countries' goods cheaply, and you can have a rich life. This conclusion does not apply to every country. For example, South Africa has a flood of money. South Africa is not rich at this time.

Because what cannot be ignored in international transactions is the currency exchange rate. There are also cross rates and effective rates. Once the exchange rate between each of the two currencies and the US dollar is determined, the exchange rate between any two of those currencies is the cross rate. The effective exchange rate needs to be calculated correctly when a currency is appreciating or depreciating. Regardless of the category, every country does not have the same number of dollars per unit of foreign currency. If South Africa wanted to make itself rich with high wages and a high exchange rate, which seems to work but doesn't. South Africa could pay its workers hundreds of millions of rand a month. The high exchange rate is the same, but in reality it takes 17 rand to the dollar. The high exchange rate that South Africa gives itself and the high wages don't help. The official exchange rate is there anyway, and it doesn't depend on subjective changes in South Africa. The difference between six yuan to the dollar and 17 rand to the dollar is whether other countries think your exchange rate is worth it. If it is, the situation of 17 rand to the dollar can be changed.

If a country is strong enough, it can produce all kinds of advanced machinery, all kinds of products, all kinds of things you want. But in other countries you can't get these things but you need them. The exchange rate is obviously high, and no matter how high it is, other countries will buy their products with the converted money if they need it. Take the US dollar as an example. Although the exchange rate of each country is determined by the central bank of each country, the mechanism of exchange rate formation is generally pegged to the US dollar, maintaining a fixed exchange rate against the US dollar.

So if a country wants to be rich (it tends to have a high GDP per capita), its high-tech industry needs to be strong enough. And a strong high-tech industry is a prerequisite for a high exchange rate. When the exchange rate is high, when other countries come to buy their own products, because of the high exchange rate, others can pay more money to me to get the products, which is also the embodiment of the high exchange rate plundering the wealth of other countries. After this, rich countries are still rich, but ordinary countries may notbe rich.

The above two points are the explanation of the big gap between China and developed countries.

Following the above ideas, we can find a problem: in recent decades, China's wages have become higher and higher, the price level has also become higher and higher, and the currency exchange rate has also risen. As a matter of fact, China is on its way to becoming a developed country. We are referring to the rising wages, rising prices and rising exchange rate in China, which are not enough at this stage to make China a rich country, combined with the lack of mature high-tech industries ahead. If China has a mature high-tech industry and can compare with the developed countries in the world today, then China will also become richer and richer -- the first aspect of the increase in per capita GDP.

The second aspect of the increase in per capita GDP is the low income in China. The low income is reflected in the per capita GDP of China in 2021 at $12,500, which means that most of the domestic people are not even able to reach the level of $12,500. This brings us back to the question at the beginning of the article: why the annual income of driving a taxi in the United States is higher than that in China. An increase in per capita GDP is needed to move from middle-income to high-income status. But a middle-income trap arises. The middle income trap may make developing countries step further into developed countries, but it may also widen the gap between the rich and the poor at home, resulting in social unrest and other problems, that is, they cannot move forward to reach the level of developing countries. In other words, if the economies in the middle cannot join the high-income group, it is obvious that the per capita income will not increase. The cause of the middle income trap is the failure of low-end industries to transform. For China, its low-end industries are gradually transforming into high-tech enterprises, but the speed is not very fast, and the progress of science and technology is not achieved overnight, and China has gradually made efforts in high-tech industries, even though China has encountered difficulties, it does not mean that it has entered the middle-income country income trap. However, China must always be alert to this problem in the process of development. As a developing country, China's balanced income is different from that of developed countries because of the different economic structures of developing countries and developed countries. Although China has a longer history than the developed countries of the United States, the industrial revolution of the United States is earlier than that of China, and China started after the colonial period. The starting point of the developed countries of the United States and China is different.

There is a per capita GDP gap between China and developed countries, but it is also in a trend of narrowing the gap. This also implies a bright future for China. China has also set the goal of reaching the level of moderately developed countries in terms of per capita GDP by 2035. In the future, China will try its best to maintain sound and stable economic development and double its per capita GDP. In addition to paying more attention to the above-mentioned high-tech industries and per capita income, China's macroeconomic policies can also promote economic growth and bring more internal impetus. Monetary and fiscal policies are used to influence aggregate demand in the short and medium term, but they can also be used to stimulate long-term growth, especially in recent years when the economy has been affected by the epidemic.

At the level of monetary policy, monetary policy plays a role in maintaining monetary stability, and ultimately plays the ultimate goal of promoting economic growth, which is also the basic routine work to narrow the per capita GDP gap with developed countries. From the perspective of international trade, we should deepen market-oriented reform of the exchange rate and keep the RMB basically stable at a reasonable and balanced level. At present, the RMB exchange rate has become stable, and for the people, the stability of the exchange rate has brought economic prosperity. A reasonable balance of the value of RMB is an important basis for maintaining the stability of the value of RMB. It is also an important indicator for narrowing the per capita GDP gap with developed countries. A devaluation of the Chinese currency means a rise in the price of foreign currencies expressed in Chinese terms, and vice versa. The People's Bank of China is now gradually introducing regular intervention in the foreign exchange market, so market supply and demand play an important role in the course of the RMB exchange rate. China is gradually adhering to the market-oriented reform, which has enhanced the flexibility of the RMB exchange rate. We will give full play to the stabilizing role of the macro economy and the international balance of payments and promote internal and external balance. The balance of payments will also play a role. This can also be linked to GDP. Total GDP, i.e. Gross domestic product = market value of domestic goods - purchases of intermediate goods, can be expressed as $GDP=C+I+G+(EX-EM)=GNE+TB$. Where GNE stands for consumption, income, and government spending, and income is the key to increasing GDP per capita as mentioned above. TB indicates that China has a trade deficit if its exports are greater than its imports, and vice versa.

3. In general

The gap between China's per capita GDP and that of developed countries exists but is narrowing. China is moving towards the level of developed and rich countries. In the measures to narrow the gap, I think the most important thing is the development of China's high-tech industry, rather than using comparative advantage to explain the differences between developed and developing countries. This is because in international transactions, both developed and developing countries have given full play to their comparative advantages, that is, country A has abundant natural resources, while country B has wheat and other grains. Both sides have advantages in their respective fields, and then international transactions take place on the basis of mutual need. This does not make a developing country a developed country. Therefore, identifying the common reasons for the gap between China and more than 30 developed countries in the world will be more conducive to the improvement of China's per capita GDP.

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