

Economic Growth Rate Influences Canadian Dollar

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"The fact that the correlation between the Canadian dollar and the CRB index is -0.89 is also very high, further evidence that the correlation between the Canadian dollar and commodities is high."

As an energy exporter, Canada derives a large part of its foreign exchange income from oil export, and its share has been increasing in recent years. Data show that crude oil now accounts for more than 10% of Canada's total current account income. Gong Wenjia, a researcher at the world gold institute, said that crude oil is generally priced in dollars internationally, with 97 percent of Canadian crude going to the United States, and that changes in oil prices affect the amount of dollars flowing into Canada. In the era of high oil prices, Canadian oil exports to the United States, thus earning, the Canadian dollar against the U.S. dollar exchange rate rose; on the contrary, oil prices fell, Canadian oil exports to the United States decreased, the Canadian dollar against the U.S. dollar exchange rate fell. Because of this, the US dollar to Canadian dollar in the market will change according to the demand and price of crude oil, so the trend of the Canadian dollar is of certain reference significance for oil prices. At the same time, as a commodity currency, the change of Canadian dollar's exchange rate reflects and affects the world's commodity trade, while the close trade relationship between Canada and the United States makes it of great significance to study Canadian dollar. This study will analyze mainly from economic fundamentals.

I. Economic growth rate

1.1. Canada's own economic growth rate

The development of national economy affects the exchange rate of its national currency through its long-term and lasting influence on the balance of payments. The development of Canadian national economy is the fundamental factor for the long-term change of Canadian dollar exchange rate. Therefore, to study the currency exchange rate of Canadian dollar, it is necessary to analyze the development of Canadian national economy. When Canada's economic development on behalf of its economic strength is strong, high degree of dependence on its currency in the world, as well as its exchange rate will be relatively rise, conversely reflected international for its dependence degree is relatively low, the trend of exchange rate will decline, this study will mainly through GDP to reflect the country economic development level in Canada.

GDP from 1997 to 2017, Canada is basically presents ascendant trend, at the same time, Canada's GDP year-on-year growth rate of the volatile, but the basic is in a state of positive growth, before 1990 are high growth momentum, but a year-on-year GDP growth in 1990, in 2009, due to the influence of faulty goods crisis negative state, but in the rapid rebound in keeping the basic growth in 2010. In the long run from 1997 to 2017, the GDP of Canada increased significantly, reflecting its booming economy, increased national income and enhanced consumption capacity. In this case, the Canadian central bank is likely to raise interest rates and tighten the money supply. The country's good economic performance and the rise in interest rates will increase the attractiveness of the country's currency, thus increasing the exchange rate of Canadian dollar in the long run; at the same time, due to the impact of the subprime crisis in 2009, Canada's GDP growth showed a relatively large negative growth, indicating that Canada's economy was in recession in 2009 and its consumption capacity was reduced. At that point, the country's central bank will probably cut interest rates to stimulate the economy to grow again. As interest rates fall and the economy weakens, the currency will become less attractive and the Canadian dollar will fall. Therefore, generally speaking, high economic growth rate will promote the rise of the local currency exchange rate, while low economic growth rate will cause the decline of the national currency exchange rate.

At the same time, as an export-oriented country, Canada's economic prosperity and development are driven by the increase of exports to some extent, and the rapid economic growth is accompanied by the rapid growth of exports. Therefore, the worldwide demand for Canadian dollars will increase, resulting in the rise of its exchange rate.

1.2. The difference in economic growth rates between the United States and Canada

Because the unique position of Canadian dollar is that the bilateral trade volume between Canada and the United States is higher than that between any other two countries. 80% of Canada's exports go to the United States, so the value of the Canadian dollar is closely linked to the strength of the American economy. America's GDP growth in 1960-2016 is relatively stable and fluctuated slowing trend, while Canada's GDP growth volatility is larger, Canada and the United States GDP growth fluctuation trend to maintain consistent but Canada's volatility is relatively large, the United States indicates that the development of the economy to a certain extent influence the development of Canadian economy. From 1994 to 2002, the GDP growth rate of the United States remained at 5%, while that of Canada was much lower than that of the United States. From 2002 to 2007, Canada's economy was in a state of rapid growth, with the highest growth rate reaching 17%, while the growth rate of the United States remained at 5%-6% during this period, which was relatively slow compared with Canada's economy. Therefore, the Canadian dollar exchange rate showed a state of appreciation against the U.S. dollar. 2007-2009 from the subprime crisis in the global range, the economic growth rate in the United States and Canada are presented on a large scale drop, appear even negative growth of the state, and during that time, Canada's economy is strongly influenced by the subprime crisis, the economic negative growth (-11.5%) is larger than that of America (-2.04%), so the present value of the Canadian dollar depreciation; from 2009 to 2011, Canada's economic recovery made its economic growth rate higher. In 2010, the growth rate of 17.67% was much higher than that of the United States (3.78%). After 2011, the growth rate of Canadian economy slowed down and showed negative growth, while the U.S. economy slowed down but maintained a relatively stable growth (4%), so the Canadian dollar depreciated against the U.S. dollar.

II. International Payments Situation

2.1. Trade balance

Balance of payments is a systematic record of the total amount of a country's balance of payments to all foreign economic transactions in a certain period of time. A country's international balance of payments reflects its economic status in the world, and also affects the operation of its macro and micro economy, and finally affects the supply and demand of foreign exchange, thus affecting the exchange rate. General international trade surplus represents a high demand for its currency, the exchange rate rise; A trade deficit would cause the exchange rate to fall.

In 1988-1996, Canada's trade balance are rising volatility state, so it is Canada's international trade import and export more than earnings volatility rises, international trade surplus, foreign demand for Canadian dollars extra to rise, increase supply of foreign exchange supply exceeds demand at the same time, make the Canadian dollar and a rise in the ratio of foreign currency, at the same time increased confidence and in the international market demand, make the Canadian dollar exchange rate against other currencies during the present increasing trend; but from 1996 to 2007, its trade balance has large fluctuations, of which 1996-1998 margin less but is still in the position of trade surplus, so during this period fluctuations in exchange rate devaluation has a smaller range and devaluation is not big, but in 1998 to 2007, the Canadian goods balance of trade are at a higher level, trade surplus has become large, although during this time the balance of trade showed a trend of slow falling volatility but the balance amount is larger, so the foreign exchange demand still too supply, the extra demand for Canadian dollars in the international market is still large, so relative foreign exchange in the condition of high speed rise. And after 2007, Canada's merchandise trade balance appears larger fluctuation, exports less than imports in 2008, in the international trade deficit, Canada cope with currency debt is greater than the currency of creditor's rights receivable, Canada, the extra demand for foreign exchange increase, make the foreign exchange demand greater than supply, foreign currency and the ratio of exchange will increase. In the years after 2014, at the same time on the demand level, the global economy in addition to the United States, to restore the magnitude of the actual are slightly lower than expected, especially in Europe and the second half of China's economic slowdown, leading to a fall in demand for commodities, in this context, in most of the global commodity prices in the second half of a degree of retreat; In the supply of crude oil at the same time, the first is the shale oil production capacity, the other is a traditional oil-producing countries such as Libya and Iraq recover production started in 2014, the international within the scope of supply of crude oil has greatly increased, crude oil prices fell 50%, makes the digital continuous Canadian foreign trade deficit, and a sharp increase in the market for the Canadian dollar confidence and demand will be relatively large, so will accelerate the Canadian dollar devaluation.

2.2. Oil trading

As a commodity currency, Canadian dollar is the most export-dependent country among the seven western countries. Its exports account for 40% of its GDP, while its exports are mainly agricultural products and seafood. At the same time, the Canadian dollar is very typical dollar bloc currencies (the dollar group refers to those countries have very close relationship with the United States economy, which mainly includes the free

trade area or a free trade agreement with the United States, Canada, Latin America and Australia, as the main representative), 80% of its exports in the United States, with the United States economic dependency is extremely high. Therefore, this study will analyze the impact of crude oil trading between Canada and the United States on the exchange rate of Canadian dollar.

From 2001 to 2010, the average ratio of Canadian export income to GDP was 36.38%, reaching 43.54% at the peak. Taking 2011 as an example, the total export of Canadian commodities was 452.44 billion us dollars (GDP was 941 million U.S. dollars), and the export of commodities played an important role in the national economy. The export of commodities, including petroleum, metal minerals, grains, rubber, animal and vegetable oils and other international bulk commodities, accounts for nearly 50% of the total export. A large number of exports generate a large amount of foreign exchange income for Canada, and at the same time promote the vigorous development of Canada's economy and trade. It can be said that Canada's economic system mainly relies on natural resources dominated by commodities.

Canada, a country with a large oil industry and an export-oriented economy, is also the largest exporter of crude oil among developed economies. At the same time, comparing the price trend of crude oil and Canadian dollar (2012-2017), it can be seen that there is a high correlation between the two trends, that is, there is a high positive correlation between the two over a long period of time (2012-present). Therefore, the change of crude oil price can affect the change of Canadian dollar to some extent.

We discovered that, the major importers of American crude oil are Canada, Saudi Arabia and Venezuela in 2016, among which Canada accounts for 41%. Therefore, Canada is the largest importer of American crude oil, while Canada exports a large amount of oil, 80% of which is exported to the United States, so the United States is the largest consumer exporter of its crude oil.

Generally lower the price of crude oil (2003-2007), when the market demand for crude oil in the United States is opposite bigger, so the import quantity is relatively high, but when the price of crude oil rises (2010-2014), the United States imported quantity of crude oil also appears on a large scale drop, and from 2007 to 2009, the United States for crude oil import quantity reduction, Canadian crude export quantity has no apparent change crude oil prices collapsed at the same time, because at that time is affected by the subprime crisis, investors worry about the outlook for the us economy. Investors' concerns that a weak U.S. economy could further depress crude oil consumption have been a major drag on prices. The immediate cause of the collapse was the flight of speculative capital. In 2014-2015, at the same time because the demand for commodities in the global economic recovery slower less at the same time the United States and the Middle East and other countries to increase market supply of crude oil, the world within the scope of supply exceeds demand, the market drop in oil prices and U.S. crude oil imports for stable but still less, pressure increases for crude oil export country, Canada, to a certain extent reduce the profits of export trade, for Canadian dollar there is the risk of depreciation.

Because the price of crude oil will affect the total demand of importer, generally, lower oil prices will make the importer needs to expand, but on the other hand will also directly affect the export trade of crude oil and related products profits, low trade profits will reduce the enthusiasm of oil extraction enterprises, inhibition capacity, compression in supply, even if there is a big trade demand but the supply is relatively small, makes the crude oil supply countries also does not have a good foreign trade income expectations in Canada, Canadian dollar devaluation will happen in a certain extent; on the contrary, high oil price will reduce the demand of importing countries. However, since the elasticity of energy demand is greater in the rising price than in the falling price, the decrease of demand is not so obvious in the high oil price, and the high trade profit brought by high oil price will bring great profit growth to the supplier. In addition, when oil prices are low, to support oil prices than OPEC to limit production agreement, Canada's oil exports more affected by market factors, during the period of OPEC to leak, Canadian crude producers may also gained market share through production, in order to extract get bigger profit growth when the rise in oil prices, so when the rise in oil prices, will make the market for its foreign trade income expectations are optimistic situation, at the same time can also affect the bank of Canada for their expectations of economic conditions, thus to some extent, the rise in the price of oil will promote the Canadian dollar appreciation; A fall in the oil price would lead to a fall in the value of the Canadian dollar.

Therefore, the general oil price goes up, the Canadian dollar goes up; Oil prices fell, and the Canadian dollar fell.

III. Rate Of Inflation

The inflation rate is one of the factors that influence the exchange rate. If a country issues too much money, the amount of money in circulation exceeds the actual demand for goods in circulation, which will lead to inflation. Inflation reduces the domestic purchasing power of a country's currency and makes the currency depreciate internally. Under the condition that other conditions remain unchanged, the currency depreciates internally and will inevitably lead to external devaluation.

The bank of Canada is mainly using the core consumer price index(excluding food and energy prices) as the reference in actual operation, to assess potential inflation trend and better assess the change of the consumer price index in the future, so this study mainly through to the United States and Canada's core consumer price index were analyzed.

In Canada in 2008-2009 core CPI is smaller than that of America, but the core CPI is explained in this period showed a trend of declining inflation cuts, while Canada rising, core CPI grew larger, explain inflation began to rise, prices high, so in the meantime, Canadian dollar relative to the value of the dollar decline than before, the Canadian dollar has depreciated risk; in both 2011-2012 and 2014-2015, the Canadian core CPI showed a significant upward trend and was basically higher than the U.S. core CPI. The price level continued to rise, and the market psychological expectation declined. Therefore, the Canadian dollar was at great risk of depreciation. Meanwhile, during the period of 2014-2015, the core CPI of the United States maintained a relatively stable state, and the core CPI of Canada increased significantly compared with that of the United States. The inflation of Canada was more serious than that of the United States, and the value of Canadian dollar against the U.S. dollar declined, which further increased the risk of Canadian dollar devaluation.

This study believes that during the period of inflation, the reasons for the decline of Canadian dollar exchange rate can be mainly analyzed from the following three points:

(1) commodity and labor trade mechanism

During inflation period in Canada, the rise in the cost of domestic exports of goods services, will inevitably lead to the increase in the price of their goods and services international, which reduces its goods and services in the international market competitiveness, influence the foreign exchange income, market for its economy is expected to reduce to a certain extent, affect the Canadian dollar exchange rate, making Canadian dollar to a certain extent can appear the risk of depreciation. If there is no change in the short-term exchange rate, inflation in import will increase the profit of imported goods, stimulate the growth of import and foreign exchange expenditure, and thus increase the additional demand for foreign currencies, making Canadian dollar have the risk of further depreciation relative to foreign currencies.

(2) International capital flow channels

Hence higher inflation period in Canada, will make the country's real interest rates (nominal interest rate - the rate of inflation) is reduced, so that by the Canadian said real yields of various financial assets will decline, lead to international investors will capital outflow, appear a large amount of capital outflow phenomenon, to further increase the risk of currency depreciation.

(3) Channel of psychological expectation

If Canada continues to experience inflation, it will affect the market's expectation on the trend of the Canadian dollar exchange rate, and then there may be a phenomenon that foreign exchange market participants are reluctant to sell foreign exchange, waiting for a higher price, and there is no panic buying of foreign exchange, which will have an impact on the Canadian dollar exchange rate.

Therefore, generally, the inflation of Canada is higher than that of other countries (the United States), and the exchange rate of its Canadian dollar will decline, when inflation is lower than in other countries, the exchange rate tends to rise.

But the bank of Canada has a clear target for inflation. Inflation targeting has an uncertain time horizon and is a multi-year objective. Periodic review and selection of a suitable price index require trade-offs in terms of credibility and controllability. Canada's first inflation target was a 3 per cent annual increase in core consumer price inflation (excluding food and energy prices and indirect taxes), which would need to be achieved by December 1992. This target was revised to 2.5 per cent by mid-1994 and 2 per cent by the end of 1995. These targets had a range of plus or minus one percentage point, and then Canada announced that it would extend its inflation target range of 1-3% to the end of 2000. The government and the central bank plan to set appropriate long-term targets consistent with price stability by the end of 2001 to translate the authorities' long-term commitment to achieving and maintaining price stability into concrete action. At the same time, the bank of Canada allows the fluctuation of 1%, the target area of 1-3%, and the target system of 9%. The range makes inflation targets more resilient to supply shocks.

IV. Interest Rates

Foreign exchange is a kind of financial asset, people hold it, because it can bring capital gains. When people choose to hold their own currency or a certain foreign currency, they first consider which currency can bring them greater benefits. Yields on currencies are first measured by the interest rates in their financial markets. If the interest rate of a currency rises, the interest income of the currency will increase, which will attract investors to buy the currency. If interest rates fall, the yield on holding the currency decreases, making it

less attractive.

It could say, "interest rates go up, money goes up; Interest rates fell, and the currency weakened. "

For the foreign exchange market, the market interest rate is usually set based on the government bond yield, because the government bond yield of a country often reflects the interest rate expectation of the country, that is, the forward interest rate of the country, and the expectation of the interest rate affects the fluctuation of the exchange rate.

4.1. Analysis on the historical changes of short - term, medium - term and long - term bond interest rates in Canada

We analyze the data and know that in Canada, short-term (march), medium-term (5 years) and long-term (10 years) treasury bond interest rates all showed fluctuations and declines. Meanwhile, short-term treasury bond interest rates showed relatively large fluctuations, while long-term and medium-term treasury bond interest rates showed relatively stable fluctuations and declines.

And a country's level of interest rates affect the attraction of a country's financial assets, in the long range, the Treasury rates have fluctuated down status in Canada, so financial assets to foreign investors in Canada the appeal of the present state of decline, while other countries rise in interest rates will increase the investment in its appeal, and will make their own monetary capital outflows increased, resulting in a decline in Canadian dollars exchange rate to a certain extent; treasury rates fall at the same time, for the country's trade projects, the opportunity cost of domestic residents' consumption is reduced, lead to higher consumer demand at the same time the use of its capital costs fell, domestic investment demand will rise, domestic effective demand will make a higher level of relative increase of export less and import, thus reducing the Canadian dollar foreign exchange supply, increase the demand for other currency, making the fall of the Canadian dollar exchange rate. But the effect of interest rates on the exchange rate is short-term.

4.2. Canada, the United States long - term, medium - term, short - term Treasury bond interest rate change comparison

4.2.1 Long-term treasury bond interest rate comparison

From 2017 to 2018, the United States and Canada's 10-year Treasury rates tend to rise, at the same time, in the meantime, the 10-year bond yields rose by bigger and faster, that relatively Canada, U.S. 10-year treasury securities for their investment and other countries have more attractive, therefore, the world within the scope of the financial asset investment will be gathered to the United States, Canada's domestic financial investment capital will likely appear the phenomenon of outflow, so relative to the dollar reduced demand for the Canadian dollar, Canadian dollar exchange rate will decline.

4.2.2 Medium - term treasury bond interest rate comparison

Five-year U.S. interest rates in 2017-2018 was significantly increasing and rise significantly, while Canada five-year interest rate rise by slow wave state, or a relatively small, relative to the United States, Canada's five-year interest rate change is small, the five-year investors more attractive for the market, so the country's financial capital, Canada will appear the phenomenon of outflow to the United States, relative to the dollar on the market demand for Canadian dollars would reduce, the Canadian dollar exchange rate to a certain extent affected.

4.2.3 Short - term treasury bond interest rate comparison

From December 2017 to August 2013, the interest rate of 3-month treasury bond of the United States showed an obvious large-scale upward trend, reaching about 1.92% at the highest, with a large increase. Treasury rates and Canada 3 months at the end of 2017 to early 2018 has a massive rise, and in February have a massive drop in April, after a little growth, during this period, the United States three months bonds rose relative to Canada for 3 months debt rises, relative to Canada, the United States three-month Treasury has more attractive for investment, Canadian national financial investment capital will be may appear the phenomenon of outflow, so the market relative to the dollar reduced demand for the Canadian dollar, Canadian dollar exchange rate will decline.

V. Conclusion

From 2000 to 2018, the Canadian dollar exchange rate is mainly affected by the economic development of Canada's economy and the United States, Canadian dollar exchange rates increase in the period of the rapid economic development, and at the same time as the export-oriented countries, are greatly influenced by the international trade, which occupy the bigger factor, oil trade in the international trade surplus, rising oil prices period, Canadian dollar has a substantial rise in the trade deficit in oil prices. And inflation and interest rates for the Canadian dollar exchange rate have impact but less volatile and short duration.