The Foreign Exchange Policy of China – Is the Country a "Currency Manipulator"?

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THE FOREIGN EXCHANGE POLICY OF CHINA – IS THE COUNTRY A "CURRENCY MANIPULATOR"?

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Abstract: *China's exchange rate policy has been one of the most contentious economic issues in present times. The large open economy with a state-led development model has been often accused of deliberately keeping its currency undervalued, thereby conferring unfair competitive advantages to its exporters, and fuelling global imbalances. The experts' opinions on that however are greatly divided. The paper's main goal is to evaluate whether China has been manipulating the exchange rate of the RMB through its exchange rate policy over the last decade. Based on various indicators, the results show that there is no evidence of China engaging in currency manipulation to the detriment of its trading partners.*

Keywords: *renminbi (RMB), undervalued exchange rate, currency manipulation, foreign exchange reform*

JEL: *F50, F31, F33*

1. Introduction

In 1978 China initiated an economic reform that has gradually started changing its economic system from a centrally planned towards an increasingly market led. In 2001 the country joined the World Trade Organization. The integration into the global economy in combination with the specific characteristics of China's economic model has brought huge benefits to the country. It has managed to substantially expand its contribution in global GDP - from 3.9% in 2001 to 17.4% in 2020, simultaneously surging its share in world merchandise trade by 9.1 p.p. to 13.1%.[2] Since 2009 China is the No 1 exporter of goods in the world, and it has turned to be the largest manufacturing powerhouse surpassing by far the previous leader the USA.

The miraculous economic success of China has had some important side effects for the global economy. Its export-oriented development has been accompanied by persistent current account surpluses and given the size of the Chinese economy they have contributed significantly to the accumulation of global imbalances. A number of prominent scholars attribute these global imbalances as being among the major roots of the Great Recession in 2007-2009 (Obstfeld & Rogoff, 2009).

In this context, the chronic positive trade balance of China and its increasing international reserves have given rise to concerns over the origin of China's competitiveness in international trade. Running an undervalued exchange rate has been traditionally used by outward-oriented economies to gain a competitive edge on the world market. Western countries, led mostly by the USA, which has experienced a dramatic increase in trade imbalance in the Sino-US trade

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[2] Own calculations based on UNCTAD data

relations over the last two decades, have largely accused China of using its exchange rate policy to get an unfair advantage in international trade. These accusations have become especially pronounced with the President's Donald Trump election campaign and subsequent coming into office.

On August 5th, 2019, the US government designated China a "currency manipulator" for the first time after 1994 (U.S. Department of Treasury, 2019) amidst already tense US-Chinese relations characterized by a looming trade war. In January next year, prior to signing a "phase one" agreement, aiming at deescalating the trade conflict, the USA has reversed its decision to label China a "currency manipulator" (BBC news, 2020). Nonetheless the issue is not permanently settled. The global COVID-19 pandemic, that started in the beginning of 2020 and has not yet fully abated, could be an important factor resurging currency manipulation around the world (Cagnon and Sarsenbayev, 2021).

Thus, the question whether China's currency (the Renminbi – RMB) is kept undervalued continues to be highly pressing. It has pertinent global political economy implications being tightly related to issue of the compatibility of the Chinese socialist market economy with the liberal world economic order. If China is found to be continuously manipulating its exchange rate in a neo-mercantilist fashion to the detriment of its trading partners, that would represent a major blow to the multilateral trading system and the level-playing field it tries to sustain.

In addition to the high importance, this is one of the most controversial economic issues of our times. Different economic studies have reached non-conclusive and very often opposite conclusions on the matter (Zhang, 2017). This is due not only to the different research approaches used but obviously due to the political charge and bias inherent in the studies. Therefore, an impartial analysis based on objective indicators utilizing up-to-date data is very much needed.

The main objective of the paper is to shed light on the contentious issue whether China manipulates the exchange rate of the RMB through its exchange rate policy in order to confer its exporters a competitive advantage over its competitors.

To that end, the following tasks have been set:

- to provide a definition of a currency manipulator;
- to identify relevant measures of currency manipulation;
- to present the evolution of the Chinese exchange rate policy in the recent years;
- to check whether the RMB is undervalued and if China could be branded as a "currency manipulator".

In methodological terms the paper rests on desk research of papers and official documents and applying commonly used indicators to measure currency undervaluation.
The paper proceeds as follows. First, a short overview of the multilateral and the U.S. national framework addressing the problem of currency manipulation is provided. The relevant criteria for determining currency manipulation are exhibited. Next, the evolution of the Chinese exchange rate policy is presented. Finally, the outcome of the indicators measuring currency manipulation with regard to the RMB exchange rate is discussed.

2. Currency manipulation designation

2.1.Frameworks to confront currency manipulation

After the WWII, committed to avoid the mistakes from the pre-war period when there was an absence of international cooperation, countries created the International Monetary Fund (IMF) to oversee the international monetary relations. Nowadays the IMF has almost a universal membership and it is within its competence to address exchange rate issues. Within the Bretton Woods system, that lasted between 1946-1971, the problem of currency manipulation was well dealt with. The fixed parity exchange rate system precluded countries to amend their currency rates by more than 10% without prior approval from the IMF. Furthermore, just correction of Balance of Payments' fundamental disequilibrium was a legitimate reason to allow countries to propose a change in the par value of their currencies.

The Bretton Woods monetary system collapsed in 1971 after the key founder devalued the exchange rate of its currency twice without turning to the IMF. The new regulations adopted in 1978 through an amendment to the IMF Articles allowed countries to use exchange rate system according to their preferences (fixed or floating/market-based). The Fund still had to approve the exchange system countries adopt but it could no longer influence the relative currency values determination (Sanford, 2011, p.2).

The IMF Articles of Agreement ban currency manipulation to improve trade competitiveness, but the IMF has no capacity to enforce that prohibition. The IMF can provide economic advice and discuss how changes in countries' exchange rates might be in their own interest. It can set a forum, where other countries can try to persuade a country to change its exchange rate procedures. However, ultimately, it is up to the country alone to make the change. (ibid.)

As the IMF cannot force a country to change its exchange rate, while the World Trade Organization (WTO) has the capacity to adjudicate trade disputes but has never dealt with currency manipulation cases via the WTO dispute settlement process, countries like the USA have addressed the problem under domestic trade laws.

Such a legislation was passed back in 1980s. The 1988 Omnibus Foreign Trade and Competitiveness Act requires the Treasury Department to analyse annually the exchange rate policies of foreign countries. The Treasury should evaluate whether they manipulate their currencies against the U.S. dollar for purposes of preventing effective balance of payments adjustments or of gaining unfair competitive advantages. If the analysis shows that such manipulation concerns countries with: "1) material global current account surpluses and 2) significant bilateral trade surpluses with the United States, the Treasury Secretary has to initiate negotiations with such countries in the IMF or bilaterally to ensure that they regularly adjust the exchange rates between their currencies and the U.S. dollar" (U.S Congress, 1988).

New provisions on currency manipulation were adopted in 2015 in the Trade Facilitation and Trade Enforcement Act. It defined which countries could be considered as currency manipulators and should undergo enhanced analysis of macroeconomic and exchange rate policies. These are major trading partners of the United States that have:

"(I) a significant bilateral trade surplus with the United States;

(II) a material current account surplus; and

(III) engaged in persistent one-sided intervention in the foreign exchange market." (U.S Congress, 2015).

The Act mandates actions to counter currency manipulation. Specifically, Treasury is to engage in enhanced bilateral engagement and, if currency manipulation persists longer than a year, enact a number of remedial actions, such as raising the issue at the IMF and prohibiting procurement contracts with the country in question.

2.2. Indicators for currency manipulation

Based on the mandate given by the Trade Facilitation and Trade Enforcement Act of 2015 and the adopted three criteria for currency manipulation, the U.S. Treasury has used four benchmarks to identify currency manipulators in its latest report. They are summarized in table 1.

Table 1. U.S. Treasury Thresholds for Currency Manipulation Under the 2015 Act

criteria	*benchmark*	*threshold*
Significant Bilateral Trade Surplus with the USA	Goods and Services Surplus with the USA	$15 billion
Material Current Account Surplus	Current Account Balance or Estimated Current Account Gap	3% of GDP (1% of GDP)
Persistent, One-Sided Intervention in FOREX	Net FX Purchases	2% of GDP
	Persistence of Net FX Purchases (months)	8 of 12 months

Source: U.S. Department of The Treasury (2021, p.3).

Countries that meet all the three criteria during a given review period are designated by the Treasury as currency manipulators, while those which meet two of the three criteria are placed on a "monitoring list". Throughout the last years the indicators for identifying currency manipulators have undergone some modifications. Yet, they remain ambiguous and suffer from significant flaws.

A major flaw of Treasury's designation of manipulators is related to the inclusion of the bilateral trade criterion. Bilateral trade imbalances do not capture currency manipulation – they would exist even if every country had balanced trade and there was no currency manipulation. Bilateral trade patterns reflect differences in resource endowments, economic structures, and historical commercial links that are independent of currency policy (Gagnon and Collins, 2019). Furthermore, Treasury's criteria lack any measure of reserve adequacy. In times of crises countries should possess enough reserves to counteract, therefore they should not only be allowed but even motivated to hold foreign exchange reserves. However, if their total stock exceeds certain value, it could signal deliberate state's action.

Cognizant of the above-mentioned caveats, the Peterson Institute for International Economics (PIIE) uses slightly different criteria than the Treasury in its section on currency manipulation.

According to the U.S. based think-thank, a country could be labelled as a currency manipulator if in a given calendar year it meets all of the following criteria:

- The current account surplus exceeds 3 percent of GDP;
- Net acquisitions of official foreign-currency assets (net official flows) exceed 2 percent of GDP;
- Foreign exchange reserves and other net official assets exceed three months of imports of goods and services;
- Foreign exchange reserves and other net official assets exceed 100 percent of short-term external debt, public and private;
- Net official flows exceed 65 percent of energy exports minus production cost; and
- The country is classified as a high-income or upper-middle-income country by the World Bank. (Bergsten and Gagnon, 2017)

The PIIE dropped the Treasury's bilateral trade criterion and added indicators on the reserve adequacy of countries and their income status (indeed it doesn't make much sense to accuse a poor developing country of being a currency manipulator). However, the PIIE's criteria are still far from being problematic - they include the current account balance, which tells us whether a country's spending to the rest of the world is higher than the incoming payment. If a country maintains a large surplus, that means that it is saving more than it invests in the home economy, and this does not necessarily stem from currency manipulation.

Alternative way to evaluate whether a country is manipulating its currency is to look directly at its exchange rate misalignment. This approach is based on the PPP hypothesis and the law of one price (LoP), which states that in the absence of trading barriers and transaction costs competition equalizes the prices of similar bundles of tradable goods across economies. If e is the nominal exchange rate, P^* the foreign price index and P the domestic price index, then with no misalignment, the same bundle of goods would have the same price across countries denominated in a common currency. Thus, based on the ratio of the price levels of two countries we can derive their equilibrium exchange rate.

In 1986 The Economist magazine has invented the so-called Big Mac Index, demonstrating the concept of purchasing power parity in a cheerful and easy to grasp way. Since then, it has been used as a rule of thumb to determine the over- or under-valuation of international currencies.

Despite its simplicity and usefulness, the Big Mac Index has some significant shortcomings. The Big Mac is a global product, identical across borders, but the LoP assumes that there are no restriction and costs on goods movement, but the hamburger is not really an easily exportable product. Most importantly, the hamburger cost of production does not include just tradable inputs (meat, buns, vegetables, ketchup, etc.) but also labour and other local inputs required for preparing and serving the item. Thus, for countries whose income levels are lower than the benchmark currency country (the USA), the Big Mac estimated exchange rate is smaller than the exchange rate determined in the goods market (Yang, 2014). Recognizing this limitation, The Economist has addressed the criticism stemming from the lower labour costs in poor

countries leading to cheaper average burger prices in developing economies than in the developed ones, by releasing a GDP-adjusted version of the Big Mac Index.

Another drawback of the Big Mac Index is its lack of diversity and also treating the equilibrium exchange rate only versus one foreign currency (the US dollar). The index is made up of one item only: the Big Mac, thus it lacks the diversity of other economic metrics such as the Consumer Price Index. It measures misalignment with US prices but does not say anything about the currency relations with the rest trading partners.

To overcome these issues, a widely used indicator for currency under/overvaluation is the real effective exchange rate (REER). According to the IMF (2022) the REER is a measure of the value of a currency against a weighted average of several foreign currencies) divided by a price deflator or index of costs. An increase in REER implies that exports become more expensive, and imports become cheaper; therefore, an increase indicates an overvalued exchange rate which incurs a loss in trade competitiveness.

3. Evolution of China's exchange rate policy

3.1.Changes in the exchange rate policy of China

Together with an intensification of the overall economic reform, China has initiated a major reform in its foreign exchange regime in 1994, adopting a market-based and managed floating exchange rate system. The country has set a goal for the currency to become convertible for current account transactions. It has unified its dual-track exchange rate by merging the official exchange rate and the swap rate. The merged rate was set at 8.7 yuan to the dollar at the beginning of 1994, in conformity with the swap rate, a better reflection of supply and demand in the foreign exchange market. In April 1994, China's foreign exchange trading centre, located in Shanghai, started operation and marked the commencement of China's inter-bank foreign exchange market. Starting on December 1, 1996, China adopted currency account convertibility, a significant step toward fulfilling the agreements of the IMF. (Yang, et al., 2007, p. 123)

During the Asian financial crisis China adopted fixed nominal exchange rate vis-à-vis the US dollar. Major currencies from the region depreciated sharply against the U.S. dollar. The RMB was under immense pressure to devalue to maintain price competitiveness in the world market. Yet, the RMB remained unchanged and proved to be a pillar of stability in the international monetary system. (ibid.)

A new exchange rate regime was adopted in July 2005 when the Chinese government announced that it would revalue the RMB by some 2% and shift from its dollar peg system to a managed floating exchange rate regime "based in market supply and demand with reference to a basket of currencies". The basket of currencies consisted of the US dollar, euro, yen, pound, won, Singapore dollar, Malaysian ringgit, ruble, Australian dollar, Thai baht and Canadian dollar, but the weights of the currencies in the basket were not publicized. The new regime has been described as "band (±0.3%), basket, crawl (± 1.5%)". (Kwan, 2005)

Since the announcement of a move away from a fixed exchange rate 2005, China started taking regular steps towards a more flexible currency, though exchange rate stability continued to be a priority. Over time the RMB exchange rate has become more flexible, nevertheless still carefully managed. A flexible exchange rate, determined by the market, is needed to help absorb external shocks and maintain the People's Bank of China's (PBC) ability to use monetary policy to affect domestic economic conditions (Das, 2019). However, China has always preferred to carry out reforms very prudently, in a gradual way that is consistent with its economic aspirations and conditions.

The PBC decided to further increase the flexibility of the RMB-to-USD exchange rate midrate quoting mechanism in August 2015. This way the market determination of RMB exchange rates was amplified, giving market supply and demand an even greater role in exchange rate formation. (IMF, 2022a. p. 3)

Since June 2018 China's de facto exchange rate regime has been classified as other managed arrangement. The de jure exchange rate arrangement is managed floating with a view to keeping the RMB exchange rate stable at an adaptive and equilibrium level based on market supply and demand with reference to a basket of currencies. The aim is to preserve the stability of the Chinese economy and financial markets. The floating band of the RMB's trading prices is 2 percent against the U.S. dollar in the interbank foreign exchange market: on each business day, the trading prices of the RMB against the U.S. dollar in the market may fluctuate within a band of ±2 percent around the midrate released that day by China's Foreign Exchange Trading System (CFETS). Despite the continued exchange controls to most capital transactions, RMB's use in international transactions has increased over time. Since October 1, 2016, the Chinese currency has been determined to be a freely usable currency and was included in the SDR basket as a fifth currency, along with the U.S. dollar, the euro, Japanese yen, and the British pound. (ibid., p. 2-3)

3.2. Is the RMB exchange rate manipulated?

Before looking at the dynamics of the various indicators commonly used to determine if a certain country is a currency manipulator, it is informative to check the opinion of international economic institutions on the matter of the RMB's exchange rate. In the year 2019 when the US Treasury designated China as a currency manipulator, the IMF, through its annual staff report for the Article IV Consultation, disclosed China's external position as well as its REER to be broadly in line with fundamentals. (IMF, 2019) That basically means that the IMF did not validate Treasury's statement.

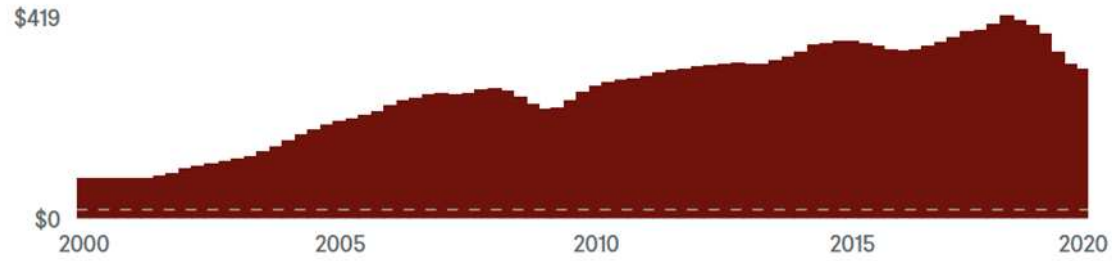
Now let's have a look at the various indicators and see if we can find evidence of currency manipulation by China in the last decade.

3.2.1. The U.S. Treasury criteria

To check whether China meets the U.S. Treasury criteria for currency manipulation, we are going to make use of an interactive tracker provided by the Council for Foreign Relations

(CFR). The tracker is updated quarterly, on a trailing four-quarter basis. It analyses data on the three variables the U.S. Treasury uses to assess countries for manipulation. Indicator values are highlighted in red when they exceed the Treasury threshold, or in brown when the overstep is by more than 100%.

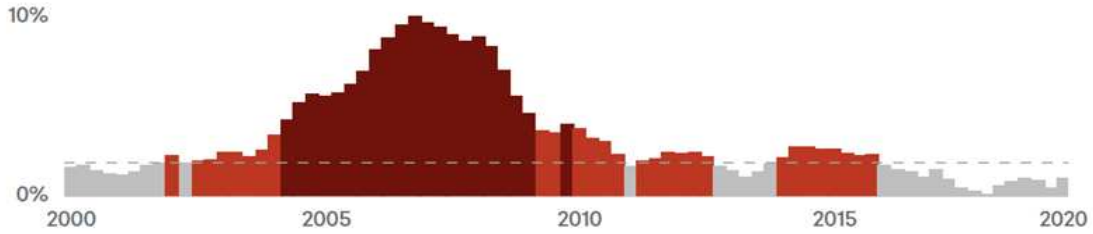
Figure 1. China's bilateral goods trade balance with the USA *(billion USD)*



Source: Council on Foreign Relations (2022).

When looking at the first indicator – bilateral trade merchandise balance – it is obvious that throughout the last two decades the USA is recording almost constantly growing and massive negative trade balance. The value of this indicator exceeds far and away the threshold. However, this is the only one of the three indicators that has been constantly met.

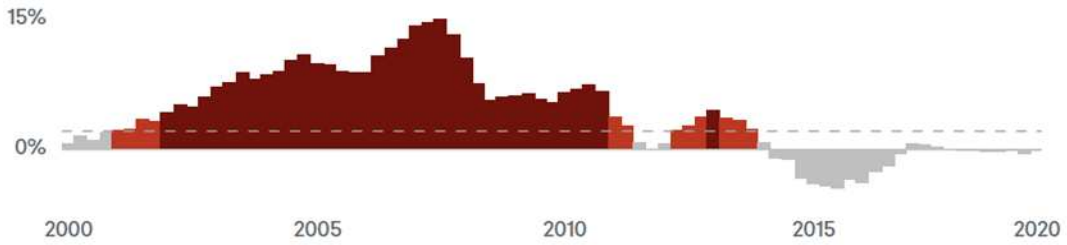
Figure 2. Current account balance of China *(% of GDP)*



Source: Council on Foreign Relations (2022).

When it comes to the second indicator – the current account (CA) balance of China – it has been in a huge excess in the period Q1 2005 – Q4 2009. Afterwards it has gradually declined. The last time it exceeded the threshold was in Q3 2016. Similar is the status of the third indicator – foreign currency intervention. It has greatly exceeded the benchmark between Q4 2002 – Q3 2011. Ever since Q4 2014 the indicator is below the threshold. What is even more, in the Q1 2015 – Q3 2017 period and then after Q3 2018 China has been on net selling dollars. Thus in the last couple of years China has been keeping the RMB from weakening and thereby supporting American rather than Chinese competitiveness.

Figure 3. China's foreign currency intervention *(% of GDP)*



Source: Council on Foreign Relations (2022).

3.2.2. The Big Mac Index

The Big Mac Index (BMI) has been widely used by policy makers and business executives alike in support of their assertion that the RMB is undervalued. Indeed, if one looks at the Raw BMI it is clear that the Chinese currency has been consistently undervalued in the last ten years and this undervaluation is quite significant (over 40% for most of the time). However, the Raw BMI has significant limitations, therefore the Economist magazine has introduced a GDP adjusted version of it, taking into account the differences in income per capita among the different countries.

Table 2. Raw and GDP-adjusted Big Mac Index for the Chinese RMB

time	local_price *(RMB)*	XR *(per 1 USD)*	dollar_price (USD)	dollar_ppp	under (-)/ over (+) valuation in %	gdp adjusted under/ overvaluation
Jan-22	24.4	6.37	5.8	4.2	-34.0	4.8
Jul-21	22.4	6.5	5.7	4.0	-38.8	-0.1
Jan-21	22.4	6.5	5.7	4.0	-38.9	2.5
Jul-20	21.7	7.0	5.7	3.8	-45.7	-6.5
Jan-20	21.5	6.9	5.7	3.8	-44.9	-8.4
Jul-19	21	6.9	5.7	3.7	-46.9	-11.8
Jan-19	20.9	6.8	5.6	3.7	-45.3	-3.9
Jul-18	20.5	6.6	5.5	3.7	-43.8	-3.6
Jan-18	20.4	6.4	5.3	3.9	-39.9	0.7
Jul-17	19.8	6.8	5.3	3.7	-45.0	-9.6
Jan-17	19.6	6.9	5.1	3.9	-44.1	-6.5
Jul-16	18.6	6.7	5.0	3.7	-44.7	-8.6
Jan-16	17.6	6.6	4.9	3.6	-45.6	-9.2
Jul-15	17	6.2	4.8	3.5	-42.8	-9.3
Jan-15	17.2	6.2	4.8	3.6	-42.2	-5.2
Jul-14	16.9	6.2	4.8	2.7	-43.1	-6.4
Jan-14	16.6	6.1	4.6	2.7	-40.7	1.2
Jul-13	16	6.1	4.6	3.5	-42.8	-6.5
Jan-13	16	6.2	4.4	3.7	-41.1	-4.2
Jul-12	15.7	6.4	4.3	3.6	-43.4	-5.9
Jan-12	15.4	6.3	4.2	3.7	-41.9	-0.4

Source: The Economist (2022).

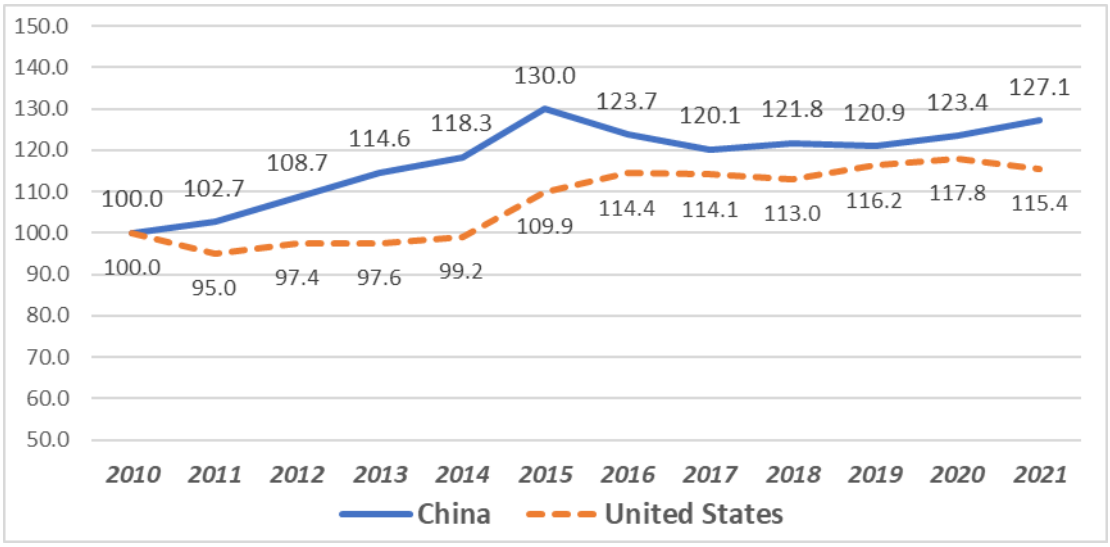
The data in the last column of table 2 shows that when taking into account the much lower GDP per capita in China than in the USA, the undervaluation of the RMB decreases quite

substantially. On top of that, in some periods (*Jan 2014, Jan 2018, Jan 2021, Jan 2022*) the nominal exchange rate of the RMB turns out to be overvalued.

3.2.3. The Real Effective Exchange Rate

Data about the real effective exchange rate of the Chinese yuan shows that it has appreciated by 27.1% over the last decade. That is a higher appreciation in comparison with the dollar, meaning that in relative terms China is losing comparative cost advantage in comparison with the USA and cannot be claimed that it manipulates the exchange rate to stimulate its exports in that period.

Figure 4. REER index of China and the USA *(2010-2021, 2010=100)*



Source: IMF (2022b).

4. Conclusion

China has one of the most contested exchange rate regimes in the world. The way China manages its national currency is subject to constant interest and comments from the country's main trading partners, and mainly from the USA. The US president Donald Trump has pledged to designate China a currency manipulator status right after coming into power. He achieved that in 2019 obviously by putting solid political pressure on the U.S. Treasury as at that time China did not meet the necessary three criteria for the designation according to the U.S. regulations. The analysis in the current paper, based on the U.S. criteria, the adjusted Big Mac Index and the Real Effective Exchange Rate indicator, has confirmed that there is no evidence that China has manipulated its currency throughout the last decade. Therefore, labelling it as a currency manipulator is not justified and pursues populist objectives. Yet, the country has a long way of reforms to go to achieve a market-determined exchange rate.

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