REALTIME ECONOMICS

China's undervalued currency is driving its trade surplus higher

Joseph E. Gagnon (PIIE) and Nishtha Agrawal (PIIE)

November 9, 2026 9:00 AM

As Europe prepares to discuss exchange rates with China (while the United States is curiously silent), Chinese officials publicly downplay any connection between China's currency and its trade surplus. This is a repeat of Chinese arguments back in 2006–07, the last time China's currency was weak and its trade surplus on the rise. The data reject the Chinese position, both then and now. China's currency is undervalued by around 20 percent. Relative to the size of the world economy, China's trade surplus already exceeds the value reached during the "China Shock" of the 2000s, and it continues to rise, grabbing sales from manufacturers outside China and contributing to rising international tensions.

To get sustainable growth both in China and the rest of the world, China needs to consume a lot more of the goods and services it produces and more goods and services from abroad. That requires major domestic reforms, including to the social safety net, as well as making it easier for foreign firms to serve the Chinese market. It will also require a substantial appreciation of China's currency to level the playing field between Chinese and foreign producers. Despite some liberalization of China's foreign exchange market over the past 20 years, the government maintains multiple levers of control and any appreciation would require the active support of policymakers, explaining why European policymakers are keen to discuss the exchange rate with their Chinese counterparts.

In assessing the valuation of China's currency, it is important to control for inflation in China and in the rest of the world by using a real effective exchange rate (REER).[1]

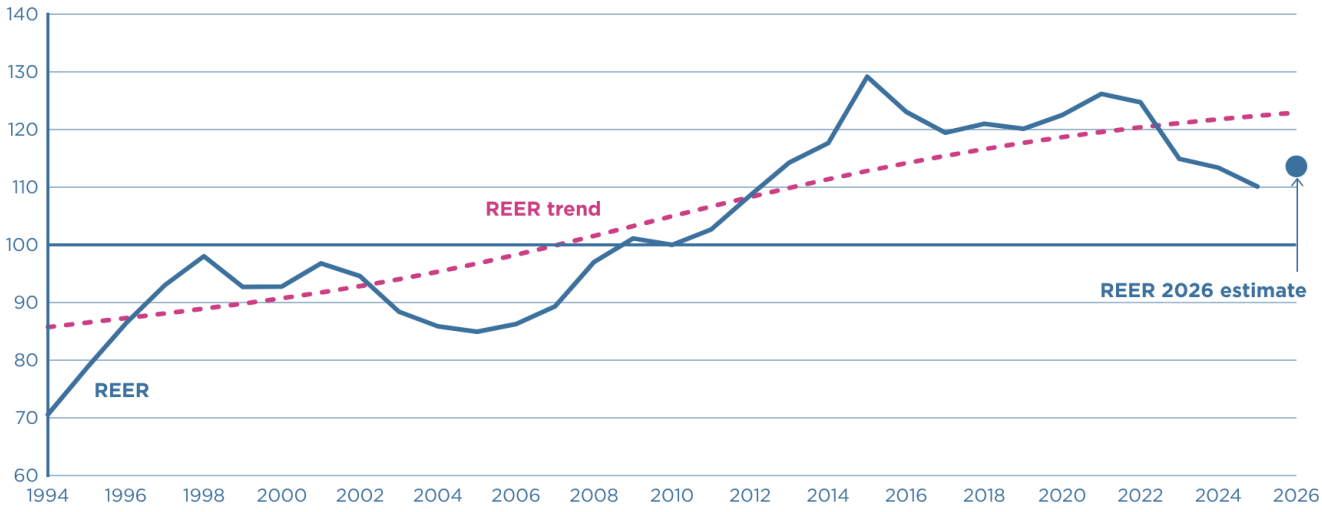
China's nominal exchange rate in US dollars has not changed much lately, but most of its trading partners had a burst of inflation, whereas China has been struggling with deflation. The result is a sharp decline in the REER since 2022, as shown in figure 1. This decline is especially significant when set against the trend increase in the REER over the past 30 years because of faster productivity growth in China than elsewhere, shown as the trend line (figure 1).[2]

In 2026, the REER is estimated to be about 8 percent below trend. But China's currency is undervalued by more than 8 percent because the trend value of the REER is historically associated with large trade surpluses, and thus the trend itself is undervalued. In order to gauge the true undervaluation, we need to measure how much the REER would have to rise to eliminate China's trade surplus.

Figure 1

China's currency falls below trend after 2022

China's real effective exchange rate (REER) and trend, 1994–2026 (index, 2010 = 100)



PIIE

Notes: "Real" means inflation adjusted. "Effective" means an average across trading partners. The dot is an estimate for 2026 based on the January-September data and assuming no changes in the last three months of the year. The trend REER is based on a regression of REER on the trend value of China's share in world PPP-adjusted GDP, which is defined in footnote 4.

Source: Bank for International Settlements, World Bank, and authors' calculations.

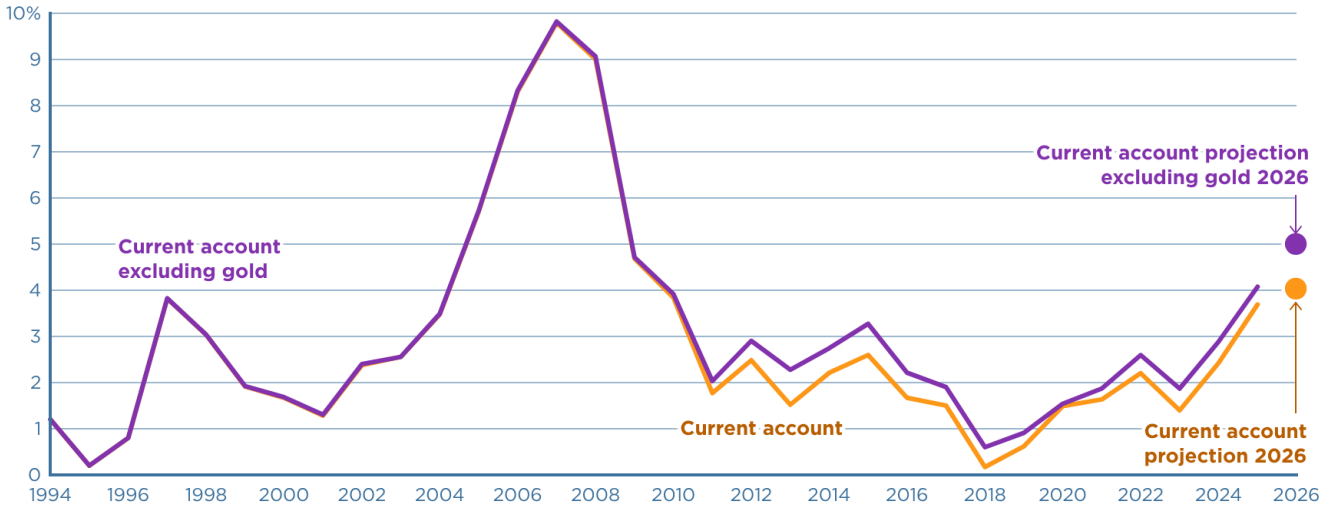
Before we take that measurement, we must grapple with the rapid rise of nonmonetary gold imports in recent years. Although these imports are included as a negative in the trade balance (current account),[3] they are primarily used as a

financial asset and arguably should be classified with the financial account. (Monetary gold is included as a reserve asset in the financial account.) The spread between the lines in figure 2 shows that net nonmonetary gold imports are on track to reach a record 1.0 percent of China's GDP in 2026.

Figure 2

China's surplus is rising rapidly, especially when gold imports are excluded

China's trade balance (current account) including and excluding nonmonetary gold, as a percent of GDP, 1994–2026



PIIE

Notes: The lower dot is the IMF current account projection for 2026. The higher dot is the IMF projection excluding nonmonetary gold in January-September at an annualized rate. Net gold imports before 2015 are calculated using data from China's trading partners.

Source: International Monetary Fund (IMF), World Bank, and authors' calculations.

The following simple equation explains 88 percent of the movements in China's current account balance excluding gold (CABXG, in percent of GDP) over the past 32 years. OPEN is the openness to trade of China's economy, defined as the sum of exports and imports of goods and services divided by GDP. REERGAP is the ratio of China's REER to its trend level. To allow for a lag in the effects of exchange rate changes, the regression uses the average of the 2-year and 3-year lagged values of REERGAP. The equation implies that movements in REERGAP have a larger effect on CABXG when trade is a larger share of China's economy. RELGDPGAP is the share of China's GDP in world GDP on a purchasing power parity (PPP)adjusted basis divided by its trend level.[4] Fluctuations in RELGDPGAP reflect different stages of the business cycle in China and the rest of the world. A high value of RELGDPGAP means

activity is relatively stronger in China, pulling in imports and pushing down CABXG. The coefficients are all highly significant, both economically and statistically. (Coefficient standard errors are shown in parentheses.)

$$\underset{}{\text{CABXG}(t) =} \underset{(0.1)}{2.8} - \underset{(5.0)}{62.9} * \text{OPEN}(t) * \log(\text{REERGAP}(t-2, t-3)) - \underset{(7.4)}{57.9} * \log(\text{RELGDPGAP}(t)) \quad R^2 = 0.88 \quad \text{Observations} = 32 \quad 1994\text{–}2025$$

This equation can be used to estimate what sustained level of REERGAP is required to set CABXG=0.[5] We note that OPEN=0.38 in 2025 and assume it remains at that level in 2026. We set log(RELGDPGAP)=0.0 because we want to measure the equilibrium value of REER.[6] Under these assumptions, the value of log(REERGAP) that sets CABXG=0 is 0.12. Given that log(REERGAP) in 2026 is estimated to be -0.08, the total undervaluation is thus around 20 percent.[7] This assessment is in accord with that of the International Monetary Fund's (IMF) 2026 *External Sector Report*, which finds that China's REER was undervalued by 21 percent in 2025. Other economists also find a significant undervaluation, including Brad Setser and economists at Goldman Sachs.

This analysis is similar in spirit to the longstanding work by our former PIIE colleagues William R. Cline and John Williamson on fundamental equilibrium exchange rates. Applying their framework to China's estimated 2026 CABXG and assuming a target CABXG of 0 yields an estimated undervaluation of roughly 20 percent.[8]

As important as currency appreciation is for rebalancing between China and the rest of the world, it is not a silver bullet. Policies to boost consumption inside China are an essential element for strong and balanced future growth.

NOTES

1. "Real" means inflation adjusted. "Effective" means an average across trading

partners.

2. Fast-growing economies typically have rising REERs. The trend growth rate of the REER is around 1 percent in the 1990s, rising to 1.5 percent in the 2000s and then falling to 0.5 percent after 2020 as China's growth slowed relative to growth in the rest of the world.

3. This post focuses on the current account, which is the broadest measure of the trade balance.

4. The trend is based on a Hodrick-Prescott filter with a smoothing parameter of 100 over the period 1990–2030, using IMF projections for values in 2026–30. Similar results are obtained using a centered 11-year moving average. Sources: IMF *World Economic Outlook* October 2026 and authors' calculations.

5. We believe 0 is a reasonable benchmark for China. As a fast-growing developing economy, it might be expected to have a trade deficit. But its rapidly aging population pushes up saving and thus the trade balance. The IMF 2026 *External Sector Report* sets a norm of 0.6 percent of GDP, but this is distorted upward by China's excessive official reserves, an issue that IMF staff plan to address in the next *Report*.

6. RELGDPGAP was reportedly very close to equilibrium in 2025. But there are strong reasons to doubt that measurement given the collapsing property prices and substantial undershooting of China's inflation target since 2023. If the true value of RELGDPGAP is deeply negative, that would be another factor pushing up China's trade surplus. The goods trade surplus in January–September 2026 came in notably higher than expected (link accessed on October 31, 2026), suggesting that the IMF projection for 2026 is likely to be too low.

7. The value of log(REERGAP) that sets CABXG=0 is robust to alternative specifications. We estimated eight versions of the equation based on the following assumptions: (1) the average of one-year and two-year lags or the average of two-year

and three-year lags of REERGAP; (2) including or excluding the lagged value of CABXG; and (3) including or excluding OPEN. In each case, the equilibrium value of log(REERGAP) lies between 0.11 and 0.14.

8. We thank Bill Cline for providing us with this result from his model.

DATA DISCLOSURE

The data underlying this analysis can be downloaded here [zip].

RELATED DOCUMENTS

2026-11-09-gagnon-agrawal.zip (360.11 KB)

chinas-undervalued-currency-driving-its-trade-surplus-higher.pdf (520.22 KB)