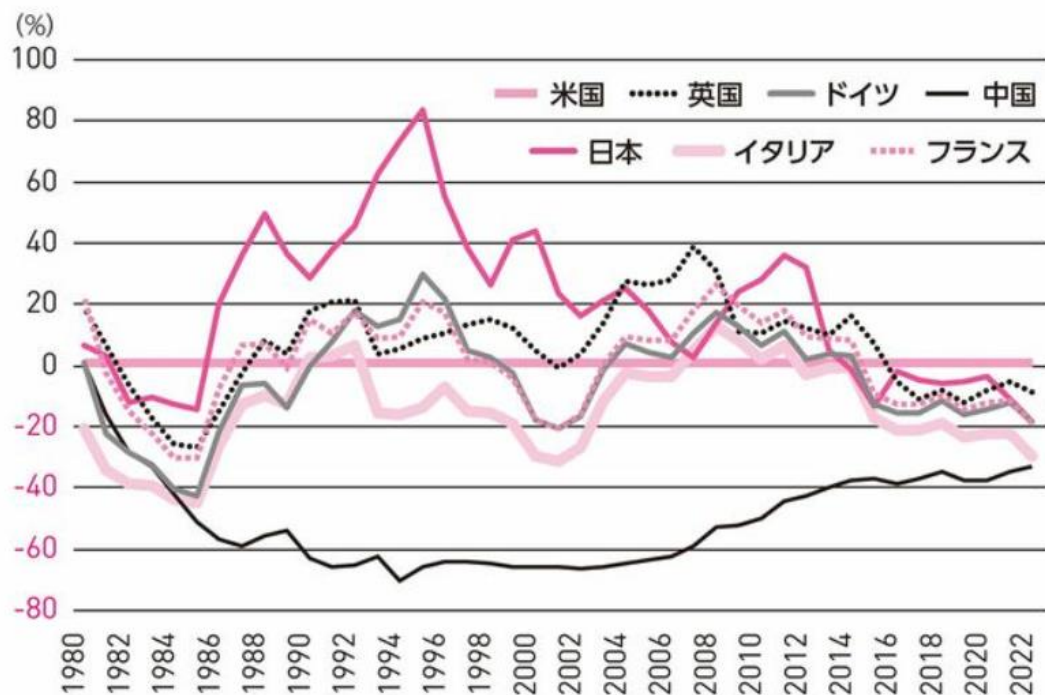


Market Rate and PPP

Economist Toshihiro Nagahama has created an interesting graph by calculating the divergence between purchasing power parity (PPP) and market rates for the G7 countries (excluding Canada) and China over the past 40 years. According to the graph, Japan's market rate deviated significantly above PPP (i.e., the yen appreciated) until around 2012, but the yen began to deviate toward depreciation from 2013 onward, resulting in the yen's current depreciation of nearly 20% below PPP. In China, in contrast, the yuan has depreciated over the past 40 years, with the market rate falling far below PPP. This has been the difference between the Chinese and Japanese economies for the past 40 years. A strong currency makes industrial locations more expensive, so capital flees to countries with cheaper currencies (where the market rate is below PPP), resulting in the hollowing out of industry. This is the supply-side explanation for Japan's economic woes. A strong currency, however, is not easily recognized as a problem because it is welcomed by the Japanese people, who can import anything from abroad at low prices and travel abroad at low rates. Conversely, a weak currency is a big advantage for domestic industry, but people are not likely to demand a weaker currency in their daily lives. On the contrary, in fact, food imports may stagnate in countries with cheap currencies, and public outbursts may lead to political upheaval. In a country like Japan, which imports large quantities of both resources and food, a weak yen, as is the case nowadays, leads to political distrust.

図表1 為替レートの購買力平価からの乖離率



(出所) IMF

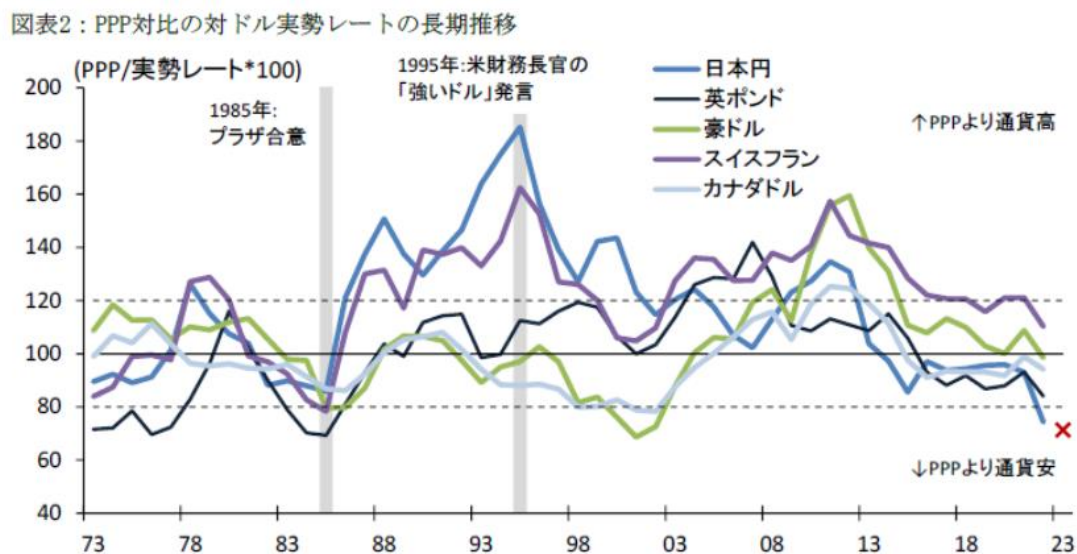
Reference: <https://president.jp/articles/-/65594>

Deterministic Cycle?

Is the weak yen an effect of Abenomics? It is usually believed that the yen weakened in Japan after the change of government from the Democratic Party of Japan to the Liberal Democratic Party at the end of 1992, when the Abe administration's newly appointed Bank of Japan Governor, Kuroda, initiated "extraordinary easing". But is this really the case?

Economist Kazuma Maeda wrote a graph focusing on the deviation of market exchange rates from PPP (purchasing power parity) (図表2). Interestingly, not only the Japanese yen, but the British pound, Australian dollar, Swiss franc, and Canadian dollar have all fallen against the dollar since 2012. The magnitude of the decline is not necessarily the largest in Japan, and the reason the Japanese yen

has fallen well below PPP is that the upward deviation at the start of the year was not so large. It is also interesting to note that the peaks of these currencies' deviations from PPP were observed as far back as 1979, 1995, and 2012, indicating a cyclical fluctuation of about 16 or 17 years. Japanese people somehow believe that Abenomics has weakened the yen, but other currencies have also fallen and appreciated against the dollar regardless of Abenomics. Moreover, this cycle of currency fluctuations shows a deterministic periodicity.



Reference: <https://www.dlri.co.jp/report/macro/278484.html>

Normally, currency value fluctuations other than policy effects are considered random walks, with no regularity. However, there is a concept called “political business cycles,” which states that U.S. government policies have a major impact on the global economy and that cyclical fluctuations can be observed because the U.S. political system is a two-party system and the administration shifts between the Democratic and Republican parties at approximately eight-year intervals. However, while 1979 was the year before the formation of the Republican administration, 1995 and 2012 were roughly midpoints of Democratic administrations with different presidents, and thus have nothing to do with a

change of administrations. If the cycle is a 16-year cycle, the next peak will come in 2028, and this year is 2023, so it would be strange if the dollar's appreciation should not peak soon, but it has not yet come. On the other hand, econophysicists point to the existence of deterministic cycles that are separate from policy. The physicist's argument is apparently related to the chaos studies in economics, but the impression is still in the realm of the occult (believe it or not, it's up to you).