

## War and Peace among Currencies: Spillover of Monetary Policy in the age of Quantitative Easing

Takatoshi ITO

### **Abstract**

*“Currency Wars” was coined by Brazilian Finance Minister Mantega when the US adopted QE2 in 2010. This is a modern version of “beggar-thy-neighbor” policy. Adoption of 2% inflation targeting and strong quantitative easing, as a part of “Abenomics,” produced yen depreciation by more than 20% and stock price increases by more than 50% in six months. Critics may regard yen depreciation due to quantitative easing as an act of currency wars. However, the yen has appreciated from 110 yen/dollar just before the Lehman Brothers collapse to close to 75 yen/dollar in 2012. In December 2012, Mr. Abe became Prime Minister, advocating a package of economic policies (three arrows) which consists of monetary easing, fiscal stimulus and growth policies. Commitment to inflation targeting and strong monetary easing, the first arrow of Abenomics, produced large yen depreciation, moving from 78 yen/dollar to 102 yen/dollar in six months. This was partly due to correction of overvaluation and partly due to expectation of future easing. Spillovers of Abenomics (first arrow) are a focus of discussions in some circles. Advanced countries, such as G7, regard the Japanese monetary policy aiming at getting out of 15-year long deflation as an appropriate policy. Some relatively-high-income emerging market economies may be adversely affected by recent yen appreciation, but they have benefited from over-valued yen from 2009 to 2012. In sum, spillovers from policy actions in a large country do occur, but benefits from larger import due to growth likely outweigh costs of export loss from price competitiveness among other countries. Counter-cyclical policies in the large country are good for the rest of the world as well as for that country.*

### **1. Abenomics and depreciation**

Brazilian finance minister Guido Mantega popularized the word “currency war” in reference to quantitative easing of the United States, the United Kingdom and ECB putting appreciation pressures on emerging market currencies including Brazilian Real.<sup>1</sup> At that time, all advanced countries were recovering from deep recessions in the aftermath of the Lehman Brothers collapse. The central banks of the above

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<sup>1</sup> For example, see Financial Times (September 27, 2010).

mentioned three countries doubled and tripled the balance sheets in addition to driving down the policy interest rate to near zero. The Bank of Japan did not expand the balance sheet, which might be the reason for the appreciation of the yen at the time. The dollar, the British pound, and the euro depreciated against the yen, the Swiss franc and stronger emerging market economies. The Brazilian Real appreciated vis-à-vis the US dollar by 25% from the beginning of 2009 to the fall of 2010. This was the background of Minister Mantega's comments.

The yen has appreciated from about 108 yen/dollar just before the collapse of the Lehman Brothers in September 2008. It appreciated to 80 yen/dollar in October 2010. The appreciation magnitude of the yen was similar to the Brazilian Real. The yen further appreciated to 76 yen/dollar in January 2012. The yen started a sharp depreciation trend in mid-November 2012, when the Diet was dissolved. As the election date was set in December, the market anticipated a change in the government from DPJ to LDP.

Mr. Abe who would become Prime Minister in December 26, advocated the drastic change in monetary policy from doing little to fight deflation to a massive monetary easing with inflation targeting at 2%.<sup>2</sup> The Abe government pushed the Bank of Japan to accept the 2% inflation goal in January 2013. To solidify on the inflation targeting and quantitative easing, Prime Minister Abe appointed like-minded Mr. Kuroda, then President of Asian Development Bank, to Governor of the Bank of Japan in late March. On April 4, Governor Kuroda introduced a plan to buy assets to expand the balance sheet in the coming months, officially called as "quantitative and qualitative monetary easing," or QQE. In particular, the Bank of Japan announced to double the amount of JGB holding in two years. During all these process toward quantitative easing with inflation targeting, the yen continued depreciate. On May 9, the yen/dollar broke the 100 yen/dollar barrier.

In parallel with yen depreciation, the stock prices soared. The Nikkei 225 prices went up from just below 8,000 yen in mid-November to 15,000 yen in mid-May. The stock price increases raised consumer confidence, and consumption increase strongly contributed to the growth rate, 3.5% quarter-to-quarter annual growth rate, in the first quarter of 2013.

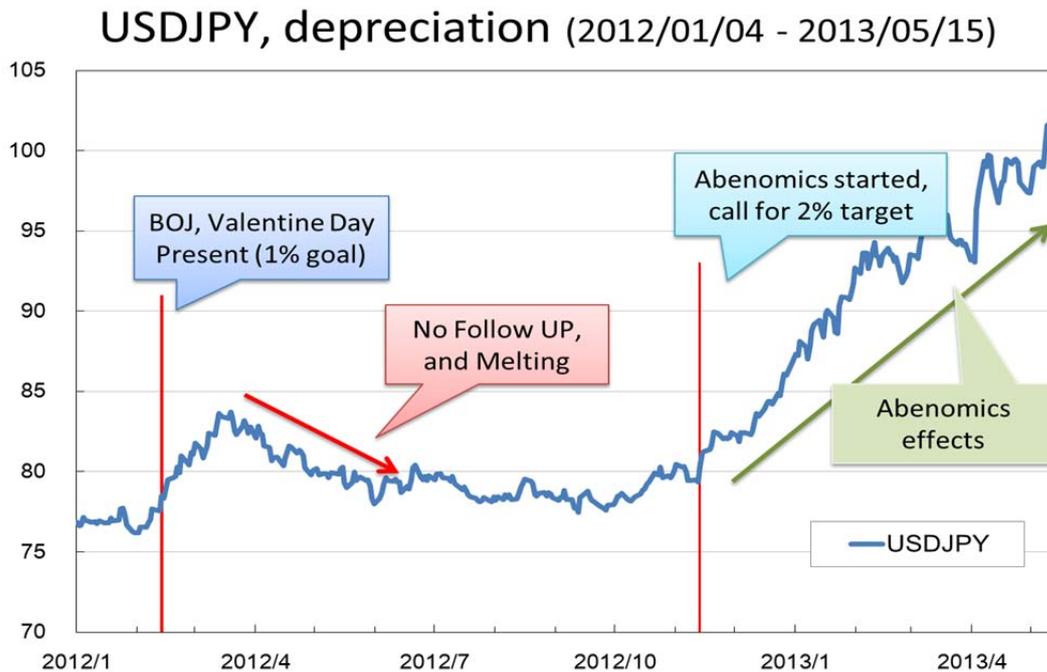
It was remarkable that the yen depreciated without any foreign exchange intervention and ahead of massive expansion of the balance sheet of Japan. the depreciation was engineered mostly through expectation. The yen was probably overvalued at 80 yen/dollar which prevailed from January 2010 to October 2012, as noted by World Economic Outlook of IMF. Moreover, the nuclear accident in March

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<sup>2</sup> The pressure on the Bank of Japan to adopt the inflation targeting and 2% goal sparked a few critical remarks from Russian and German officials, see Financial Times (2013).

2011 made Japanese energy imports to soar, making the trade balance in deficits. So, a part of depreciation was correction of overvaluation. However, many regarded that the correction was over by the time the yen reached 100 in May 2013. See Figure 1.

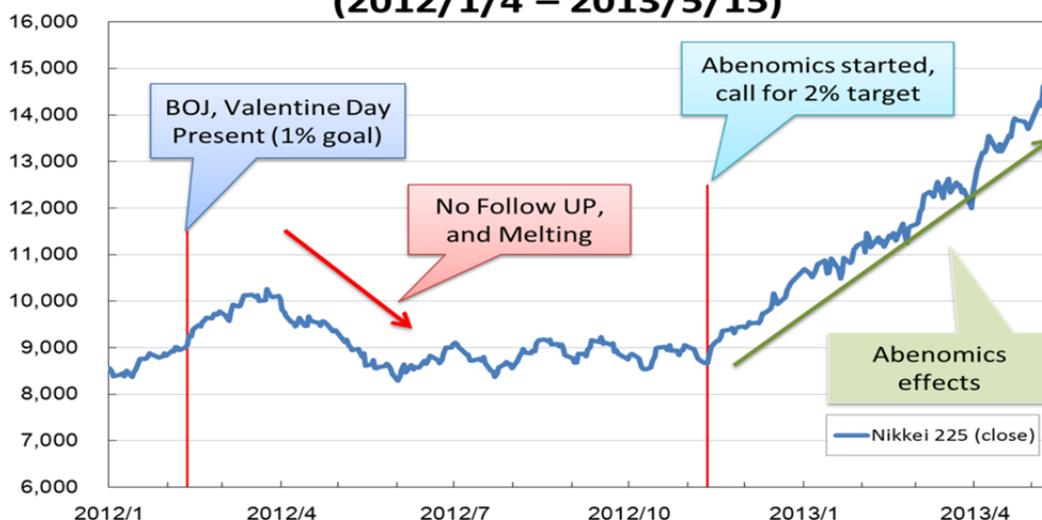
Figure 1:



Japanese exporters suffered heavily from the prolonged overvaluation of the yen. Yen appreciation made their profit to shrink from depressed margin, lower export volumes and a smaller paper profit of the foreign operations. The stock price hike along with yen depreciation was actual and anticipated correction. See Figure 2.

Figure 2

## Stock prices, Nikkei 225 (2012/1/4 – 2013/5/15)

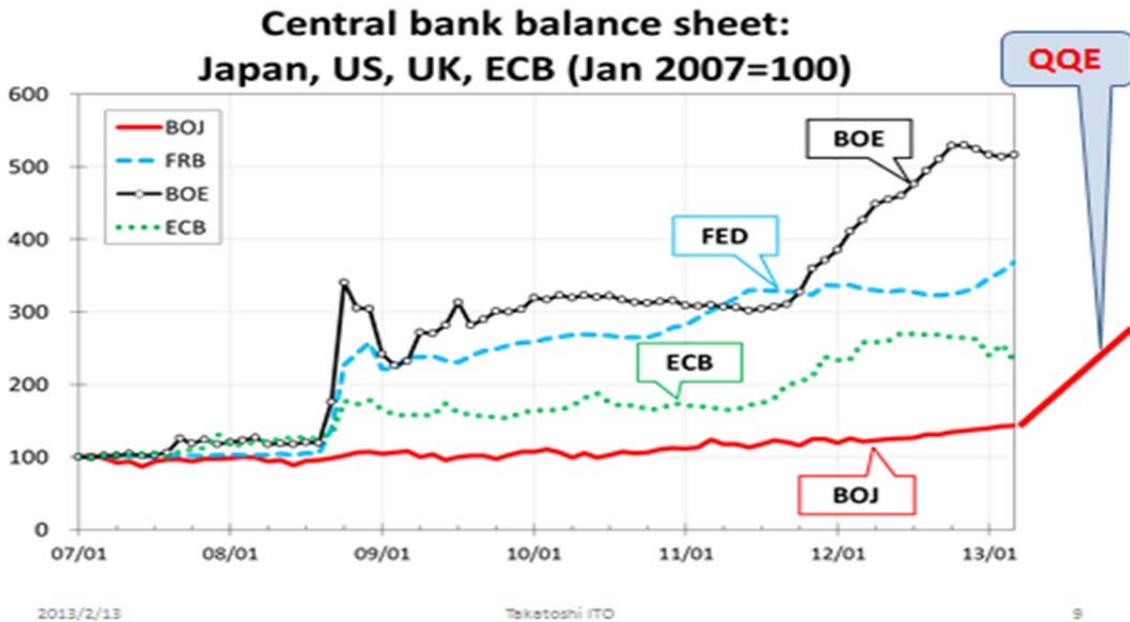


Exporters reported stronger profits for the fiscal year ending March 2013, due to yen depreciation. So, a large part of the stock price increases can be regarded as a result of yen depreciation. The first arrow of Abenomics, inflation targeting with commitment to future expansion of the BoJ monetary base seems to have succeeded through raising exporters' profit via yen depreciation and increasing consumption via the wealth effect.

Is Abenomics unique to Japan? Is Abenomics an act of currency wars? Most likely not. In any standard macroeconomic model with the floating exchange rate regime, monetary easing by lowering the interest rate will cause depreciation of the currency of the country. If the country is "small," by assumption, depreciation would be good for that country and the rest of the world would not see positive or negative effect from the country's action. However, when a large country cut the interest rate, capital tends to flow out of the country affecting the world interest rate and the configuration of the global exchange rates. That is not a problematic policy, so long as the exchange rate is explicitly targeted.

Recall that the QE2 by the United States invited a reaction from Brazil. One interpretation is that Japan lost a currency war in 2008-2010. The Bank of Japan did not expand the balance sheet while the US Federal Reserve, the Bank of England and ECB expanded the balance sheet. See Figure 3.

Figure 3

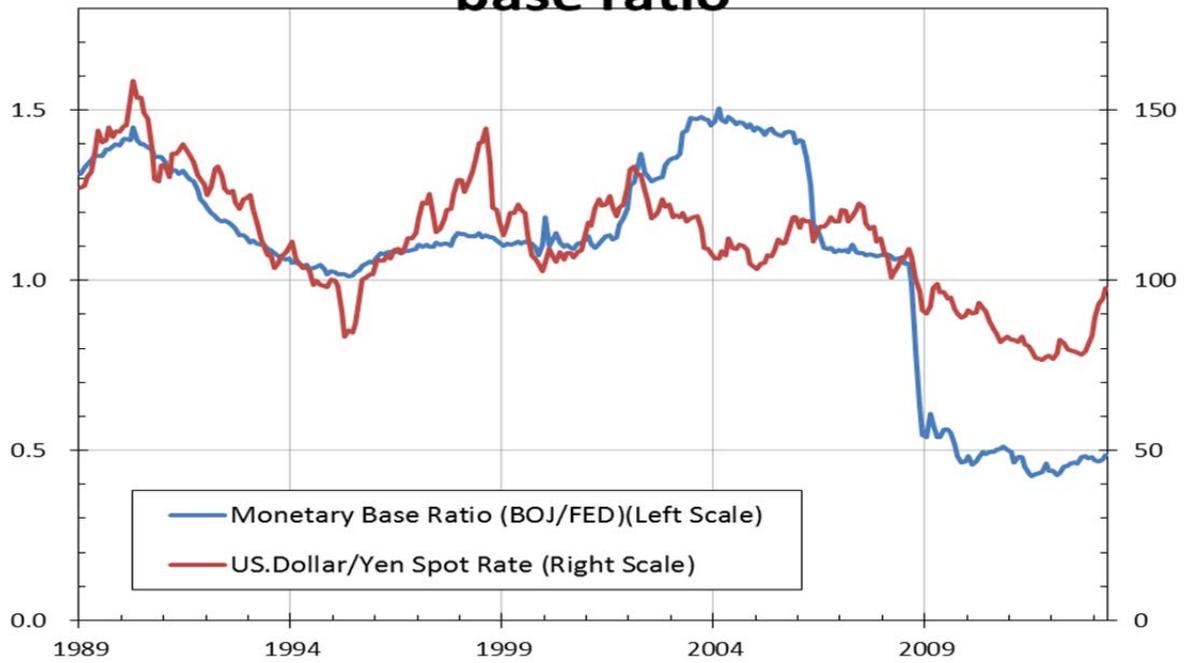


The Bank of Japan now announced that the balance sheet will be expanded in the next two years. The BoJ under new Governor is fighting to recover the lost ground, a result of non-action in the last war in 2008-2010. Let us examine whether this interpretation can be validated by data.

Figure 4 shows the relationship between the yen/dollar rate and the ratio of the BOJ monetary base to the FED monetary base. The data are from January 1989 to March 2013.

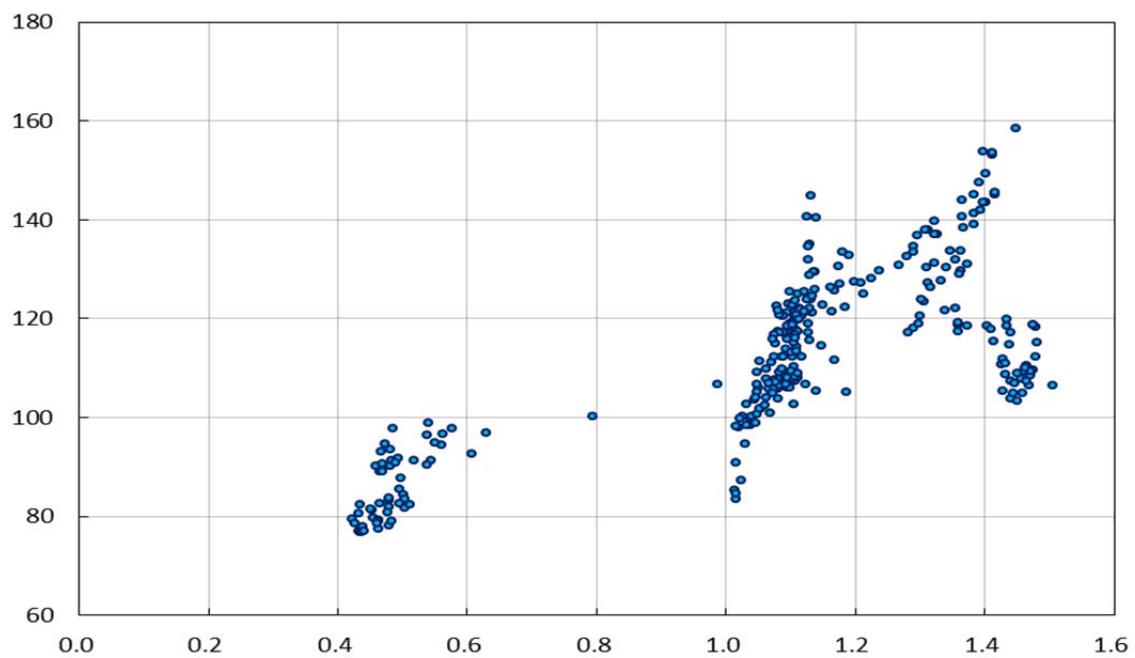
Figure 4

## Yen/Dollar and the monetary base ratio



The Figure 5 shows the scatter diagram of data in Figure 4.

Figure 5



The two figures show the positive correlation between the yen depreciation and the monetary base ratio. Namely, the BOJ inaction when Federal Reserve was expanding monetary base most likely contributed to the yen appreciation from 2008 to 2012. A unique feature of the first arrow of Abenomics is the yen depreciation sharply before the actual expansion of the BOJ started. So it is expectation driven depreciation. But, if it had not been followed up by action, it would not have been sustained.

## **2. Global QE as a way out of (near) deflation**

At the time when the US and European financial institutions found themselves in a deep hole of toxic assets in the fall of 2008, the US and the UK did not hesitate to expand central banks' balance sheets. Ben Bernanke, chair of FRB, is a scholar of the Depression, so that he clearly sensed the shadow of the Depression approaching the global economies. The lesson from the Depression was, when deflation (or deflationary shock) hit the economy, it is good to inflate the circulation of money. (See Eichengreen and Sachs (1985, 1986).) This was difficult in the gold standard economies in the 1930s. However, the major central banks are free to print money without "golden fetters" or the fixed exchange regime, an appropriate response is all central banks to expand their balance sheet in concerted actions. This is an argument of Eichengreen (2013).<sup>3</sup>

Although emerging market economies may object to a particular action of some central banks, as long as the global economies are simultaneously weak, then the overall benefits from global QE outweigh costs. Better growth in advanced countries should be welcomed. Thus, QEs by large advanced countries can be viewed as macroeconomic policy coordination, a la Hamada (1976).

## **3. Spillover**

In the wake of the Lehman Brothers collapse, the G20 Summit was formed, and leaders agreed to several important messages from 2008 to 2009. One of them was a commitment not to engage in competitive devaluation, which was the case in the 1930s. However, what defines competitive devaluation is not clear under the floating exchange rate regime. In response to immediate financial crisis, the FED, ECB and BOE provided massive liquidity to the market by purchasing risk assets as well as long-term government bonds from the fall of 2008 until present. These are not generally considered to be competitive devaluation. Hence, Japanese fight against the 15-year deflation by having the explicit inflation target of 2% cannot be regarded

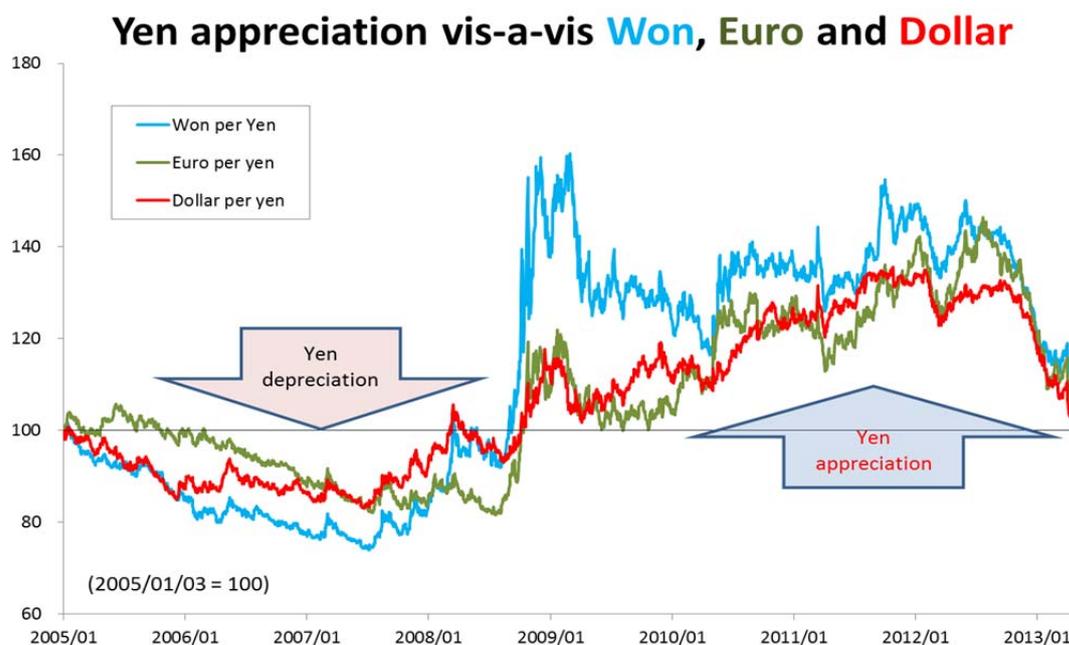
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<sup>3</sup> The Eichengreen paper is summarized and referred to in Economist (2013) and Financial Times (2013a)

as competitive devaluation. The yen has depreciated more or less to the pre-Lehman Brothers level—still a recovery in exporters’ competitiveness in the environment of trade deficits. So there seems to be a little problem in spillovers from Japanese monetary easing to other advanced countries like the United States.

Some concerns have been expressed from Korea about rapid yen appreciation. The Japanese electronic industries suffered from loss of price competitiveness from late 2008 to late 2012, because Korean electronic industries enjoyed massive depreciation of the won vis-à-vis the yen. Now after the rapid yen depreciation thanks to Abenomics, the Korean exporters are voicing concerns.<sup>4</sup> Figure 6 shows won per yen, euro per yen, and US dollar per yen. The upward movement is appreciation of the yen and downward movement is depreciation of the yen

Figure 6



Source:  
Note:

The figure clearly shows that the yen has appreciated against the three currencies, but to the Korean won most. Indeed compared to the low in mid-2007, the value of the yen doubled against the Korean won by the spring of 2009. This is because the yen appreciated in the wake of the Lehman Brothers collapse, while the Korean won depreciated in the same period. The yen was the safe haven currency,

<sup>4</sup> See Financial Times (2013b). The article stated that Korean finance minister Hyun Oh-Seok described won’s appreciation against the yen to be a larger issue than North Korean missile.

and the Korean won was risky emerging market economy. However, the Korean electronics industry was at par in technology and productivity with the Japanese counterpart. Hence, the massive change in the exchange rate affected adversely the Japanese electronics industry. The same figure also shows that by March 2013, the yen/won rate is almost back to the pre-Lehman level. This also shows that the first arrow of Abenomics is just restoring the competitiveness that was lost in the period between late-2008 and late-2012. So, spillovers may have happened, but it is symmetric. When the monetary policy is tight in relative to other countries, the Japanese yen appreciates losing advantage to others; and monetary policy is loose in relative to other countries, the Japanese yen depreciates, gaining advantage over others.

#### 4. Concluding Remarks

Abenomics has produced large responses in the global currency markets and stock markets in Tokyo. The transmission channels of quantitative easing include the asset price increase and currency depreciation, so this is nothing unusual. For the yen depreciation, this can be regarded as a recovery from too much appreciated levels from late 2008 to mid-2012. Making up the lost ground should not be labeled as an act of currency wars. Another way of describing QEs in the US, the UK, the euro zone and, belatedly, Japan can be regarded as policy coordination to prevent the Depression of the twenty-first century. The central bank policies, implicitly or intentionally coordinated, among the large advanced countries are like getting out of the gold standard that made the recovery in the 1930s.

In any measure, Abenomics as of this writing is good for Japan and the rest of the world. However, without direct intervention and without accumulating massive foreign reserves, counter-cyclical monetary policy, whether it is the interest rate adjustment or QE, cannot be viewed as an act of war. May the controversy rest in peace.

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