Should a Central Bank Spend Part of Its International Reserves?

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In the past, we have argued that it is relatively easy to be a central banker during the good times. In most cases we have used many of the emerging markets' central banks as the example of how easy it is to be a central banker. They are also a good example of some of the common pitfalls that can ultimately lead to capital flows which cause a financial crisis and a large devaluation of the local currency. We have to apologize to the emerging economies' central bankers. They are not the only ones who make these mistakes. A recent article in *The Wall Street Journal* suggests that the Swiss could make such a mistake.

It is sad that politicians just want to spend money and will make an attempt to grab whatever money is available to them, even in a developed and well-functioning economy (up till now). To understand how this grab for some of the international reserves will put the Swiss central bank at the peril of capital outflows that could break the bank, we need to review the workings of an exchange rate system where the central bank attempts to prevent the currency from appreciating too much.

The Accumulation of International Reserves

Historically, the Swiss National Bank has done a good job of managing its exchange rate and domestic inflation rate. During the double digit inflation of the 1970's, Switzerland had a much lower inflation rate and was considered by many as a safe haven. Add to this Switzerland's neutrality and its banking laws, and it is easy to see why many people wanted the safety of the Swiss assets and, in particular, its currency. In recent years some of the attributes that made the Swiss currency and banking system so popular have been weakened. The banking laws and secrecy is one example. Another is a result of the geopolitical forces. Neutrality was not a big deal in a world with just one superpower. In addition, it seems that the geopolitical center may be shifting away to other parts of the world. Nevertheless, the fact remains that Switzerland is still a "safe place" with a well-managed and attractive currency. The Swiss National Bank has taken steps, successfully we may add, to prevent foreign capital inflows from disrupting the domestic economy.

The Mechanism

It seems that the central bank has come to the conclusion that a widely oscillating exchange rate or one that exhibits a large appreciation may cause some disruptions to the local economy. As a result, the monetary authorities have deemed it sensible to prevent the excessive appreciation of the franc.

Given that the exchange rate reflects the price of one currency in terms of another, it is quite easy for the central bank to prevent the appreciation of the currency. All it has to do is print more money and exchange it. This increases the supply of Swiss francs in the global economy. All else the same, the increase will result in a decline in the foreign exchange value of the Swiss franc. In effect, the Swiss National Bank acquired all the international reserves for free.

This is a good deal for the central bank, as it prints paper money and receives international reserves. That, in turn, has produced some interesting results. In its attempt to prevent the Swiss franc from appreciating above a certain level, the Swiss National Bank has amassed $750 billion worth of international reserves.

Politicians Want to Get a Piece of the Pie

The large accumulation of international reserves has tempted local politicians, who are trying to figure out how to get a hold of the loot that has accumulated at the Swiss National Bank. The argument they make may be a bit different than those made in other countries, especially emerging countries, at different points in time. The argument was made by the Asian Tigers and Latin Pumas during the 1990's when their currency had a tendency to appreciate. But in a preview of our conclusions, we have to point out that in those economies, the raiding of the central bank's international reserves did not end well. Then there is China's case, with its vast reserves. People would argue that there was no need to keep all those reserves idle and that the government could use them for domestic projects. Yet we know that while the economy was relatively open, China lost nearly a trillion dollars in a space of three to four months and had to reimpose capital controls. Given these experiences, there is no reason to expect that raiding the Swiss National Bank reserves will end with a positive experience either.

Prior to getting into the reasons why the above mentioned economies faced a financial crisis, it may be instructive to discuss whether there is a system that can prevent these crises.

What Happens When the Process Reverses: The Downside

The simplest way to discuss the system is to assume a fixed exchange rate, say a 2 to 1 exchange rate. Under these assumptions the central bank will have the obligation of preventing the appreciation or depreciation of the local currency in terms of the foreign currency, let's say the U.S. dollar. We already discussed what happened during a local currency appreciation period. An incipient appreciation will induce the local central bank to print more of the local currency. The net effect of these actions are twofold:

1. As the quantity of the local currency increases relative to its international currency, the exchange rate will tend to depreciate. Hence the central bank can prevent the appreciation above and beyond its target exchange rate.
2. In the process of preventing the exchange rate from accumulating, the local central bank will accumulate the international currency, i.e. international reserves.

Is this System Sustainable and Under Which Conditions?

The answer to the first part is affirmative. In principle, the system is sustainable and the conditions are quite simple. If for every 2 units of the local currency, the central bank has $1, then the system is sustainable.

To see that it is sustainable, all one has to think is what happens as the process reverses. When foreigners no longer want the local currency and want the central bank to give dollars in exchange, under the conditions outlined in the previous paragraphs, the central bank has 100% coverage of the international reserves and thus should have no problem meeting the redemptions or capital outflows in formal terms.

Is There Any Way to Insure the Condition is Met?

Again, the answer is in the affirmative. The simplest solution is to institute a currency board. The problem with the currency board is that the country has to relinquish an active monetary policy on the part of the central bank or monetary authorities. Under these conditions, it is the private sector--through its capital flows--that determines how much of the local currency is being issued by the local monetary authorities, for which the high-powered money has a 100% of international reserves.

Rationale and Causes for Less than 100% Backing of International Reserves

Once international reserves accumulate at the central bank, it tends to provoke a debate as to whose money is it anyway? And what should the country do with all that money?

A common response from local politicians is that a fraction of the reserves should be invested for the interest of the public and future generations. This means current expenditures or infrastructure investments. This raises several issues. The first one is whether the so-called investments have a positive net present value. Do the benefits of the investments exceed the resources spent? Then there is the question of the impact of the use of the funds on the international reserve coverage of the domestic currency. In so far as the coverage is less than 100%, we are guaranteed that a full blown speculative attack against the currency will be successful. Either the central bank will run out of reserves before all the local currency is converted into dollars or else the central bank will have to let go of the exchange rate. Either way, the country will experience an exchange rate crisis.

Another potential source of disturbance may occur when the central bank decides to diversify the international reserves and instead of holding dollar bills, it buys different liquid assets such as long duration bonds in search of a higher yield. The problem with this strategy is that such a diversification strategy could lead to portfolio gains/profits, as well as losses.

Yet despite the possibility of losses and speculative attacks, the local debate is for the central bank to diversify its investments and as it does and gains are realized, the politicians unambiguously go after these gains. For example, the profits of the Swiss National Bank (SNB) was $25.4 billion or about $3000 per capita. Proponents of using the profits point out that the SNB is not the only institution making a profit. The Fed earned nearly $100 billion from its bond portfolio. The Eurozone central banks have also recorded large gains. All of this brings us back to the question of to whom do the profits belong. Many in Switzerland believe that the reserves and their profits belong to the country. As such, the profits should at least be either spent on national projects that will boost long term growth or they should be devoted to building a sovereign fund for the benefit of the Swiss people. They point out that China and Singapore have sovereign wealth funds that were set up to manage foreign reserves.

An alternative view regarding the international reserves is that either losses of international reserves or capital gains losses of the diversified reserves that the central bank may hold will reduce the total amount of reserves held by the bank. If by chance there is an adverse shock that produces a capital outflow, the international reserves will decline further. If part of the reserves was already spent on domestic programs, as the capital flows out of the country, the reserve coverage ratio will decline and quite possibly accelerate, thereby increasing the likelihood of success of a speculative attack.

Speculative Attacks

The previous section presents an argument as to why no fraction of the international reserves should be spent on domestic programs. The critics may argue that this is a theoretical possibility, but how likely is the possibility of a successful speculative attack?

The post-war era has many examples. Let's begin with the U.S. during the Vietnam era. It was very difficult to raise taxes to finance an unpopular war. During that time, the Johnson administration was implementing the Great Society programs and that left only excess domestic money creation as a financing source. Under Bretton Woods, the U.S. was to guarantee the value of the dollar in terms of gold. The rest of the world could enforce the discipline by bringing dollars and demanding gold. France's Charles De Gaulle was insistent on doing so. Rather than adhere to the Bretton Woods discipline and stop financing the Vietnam war by printing money, the U.S. closed the gold window, devalued the dollar, and a decade of near double digit inflation ensued.

During the 1990's the world embarked on a freer trade, lower tax rate policy. As the emerging markets adopted many of these policies and enhanced property rights, their economies improved and the exchange rate soared. The stalwarts were dubbed the Latin Pumas and the Asian Tigers. The capital inflow produced an exchange rate appreciation in these economies. The local central banks limited the appreciation by printing local currency. As international reserves accumulated, politicians were quick to spend a fraction of the reserves. Yet they did not count on or anticipate a downturn. As the capital flows reversed, the reserves dwindled and people began to speculate against these economies' currencies. Most of these economies succumbed to the crisis. Their exchange rate depreciated, inflation rose, and the economy tanked.

The one exception was Hong Kong. The Hong Kong dollar came under attack by speculators. But as we know, under a currency board there is 100% international reserve coverage of the monetary base, insuring that there will be enough international reserves to cover the outflow and domestic money reduction. From this point of view, the speculative attack would not be successful. For that reason, the speculators used a two pronged attack. They figured that as the reserves left the economy, the domestic money supply--and thus bank credit--would decline and the credit crunch would have a negative effect on the financial markets. The speculators not only shorted the currency, but they also shorted the stock market. Their reasoning was simple. They figured they had a free lunch. If the Hong Kong monetary authorities let the fixed exchange rate go, the speculators would win. If the authorities defended the exchange rate and currency board, the money supply would decline and the credit crunch would reduce the Hong Kong stock market, which meant they would win. Either way they thought they would win. What they did not count on was that the Hong Kong monetary authorities would use international reserves to support the local stock market. This strategy broke the speculators back and the Hong Kong monetary authorities saved the currency board and Hong Kong fared much better that the Asian Tigers or Latin Pumas.

Even China is not immune to the policy mistakes associated with the spending of international reserves and bad monetary policy. We just need to point out that China lost approximately a trillion of dollars in international reserve over a 3-month span.

What Can the Central Bank Spend?

Using the Hong Kong monetary authorities as a base case scenario, we can address the issue of what the central bank can spend without any repercussions. The previous discussion shows that 100% coverage provides the necessary condition for a successful defense against a speculative attack. Any coverage below 100% coverage means that an attack can be successful. Hence, the central bank or monetary authorities cannot spend any of the principal or international reserves. This leads us to the answer to the question at hand. The central bank is only entitled to the interest earned by the international reserves. Hence the central banks are only entitled to the s*eigniorage* earned by the central banks or monetary authorities.

Once we conclude that the central banks cannot spend any of the principal or international reserves, we need to focus on how to hold these reserves. The safest and easiest way to hold the reserves is in terms of the international currency or, at best, short-term T-Bills in the currency. Under these conditions, the central bank combined with a 100% coverage ratio is guaranteed to meet any capital outflow, no matter the size of the outflow. There are no speculative attacks under these conditions.

For reasons that need no explanation, many of the world's central banks have expanded their balance sheet. Some voluntarily, others not so much. Let's take the case of those who have done so voluntarily. One wonders what has happened to their portfolios since they undertook these actions. The low central interest rate policy has resulted in an appreciation of longer duration fixed income instruments. Simply put, their bond portfolios have appreciated. Unfortunately, the central banks do not have a long history as fixed income managers, so it is hard to evaluate their track record. However, we find it hard to believe that the central banks will have a capital gains or profit year in and year out. This then raises the possibility that when the gains are distributed to the treasury, the coverage of the currency will decline during periods of capital losses. If sufficiently large and combined with an adverse economic shock, such loses increase the likelihood of a speculative attack. Yes it is true that the Swiss National Bank made money during the recent year to the tune of $25.4 billion, but one has to keep in mind that two years ago when the franc soared, its international reserve portfolio suffered large paper losses. Add to this the fact that the central banks are talking about returning to normalcy, then we would expect interest rates to increase and that means losses for long dated fixed income instruments. Just because it is the developed countries' central banks that are spending the profits does not mean that their experience will be any different than those of the emerging markets central banks when they spend a large fraction of their international reserves.

Victor A. Canto, Ph.D.
Chief Economist &
Managing Director Global Strategies