W A Wijewardena: Auditing the key policy functions of a central bank – views from the top

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The views expressed in this paper are those of the author and should not be construed as those representing the Central Bank of Sri Lanka.

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The primary objective of a central bank is to stabilise the value of its currency and continue to maintain that stability to facilitate long term economic growth. There could be other ancillary objectives assigned to a central bank, such as providing liquidity to the government to bridge its revenue and expenditure flows or refinancing banks' loans to priority sectors. But the primary objective of a central bank takes precedence over any such ancillary objective and, if there is a conflict between the two, a central bank should always give priority to its primary objective[1]. This is because the success or failure of a central bank is gauged by its attainment of the primary objective and not the ancillary objectives. Even if a central bank has done well in realising its ancillary objectives, but failed in the primary objective, then, that central bank is deemed to have failed in its operations. Hence, the key policy functions of a central bank should perforce be geared towards the attainment of its primary objective and all systems, within and outside, should be aligned to ensure it.

It is, therefore, necessary to review and monitor the working of the key policy functions of a central bank continuously in order to diagnose the impending risks and take appropriate prescriptive measures. This function requires a special type of auditing of the key policy functions of a central bank.

The irresponsible use of a central bank's discretionary powers

Central banks are privileged institutions in the sense that they can acquire assets by creating liabilities at their own discretion. No other organisation enjoys that kind of a discretionary power. If others are desirous of acquiring assets by assuming liabilities (in other words, by borrowing from others), they have to go along a tedious path. They have to do so by establishing their creditworthiness before prospective lenders and after complying with tedious legal and market-established procedures. The lenders too would lend them not because of being subject to any compulsion, but upon their free will, having assessed the risk and the profitability of the transaction involved. But, central banks could acquire assets just by making book entries. They could issue currency and get others to part with their assets in exchange for that currency. All that happens in a central bank's balance sheet is the creation of a liability item in the form of "**currency liability**" and an asset item representing the asset the bank has acquired. This would make both assets and liabilities to rise simultaneously. This extraordinary power is being enjoyed by a central bank due its functioning as the monetary authority of a country. However, the community has given such a power to a central bank with a non-violable obligation attached to that power: the responsible use of the discretionary power vested with it.

There are two reasons why a central bank should use its discretionary power of issuing currency responsibly.

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[1] This is valid even when the financial system stability has been made either a core objective or an ancillary objective of a central bank.

First, the issue of currency over and above the needs of the society will expand the nominal aggregate demand creating an excess demand for goods and services. Since the aggregate supply is inflexible to meet this demand in the short run, the excess demand will put pressure for prices to rise. If this continues year after year, it generates inflation, reducing the wealth of people in real terms and creating a series of adverse consequences that hinder the long term growth.

Second, in an open economy which most countries have today, the rise in the aggregate demand could partly be met out of imports. Unless the country makes a surplus in its current account, the payment for imports has to be made either through capital inflows (both debt capital and non-debt capital) or running down the existing foreign reserves. Both generate long term balance of payments problems and exert pressure on the exchange rate to depreciate.

Thus, the irresponsible use of the discretionary power of a central bank to acquire assets by creating a currency liability will lead to a depreciation of both the domestic value of its currency (domestic inflation) and the external value of its currency (continuous depreciation of the exchange rate). However, the fall in the external value of the currency is linked to, and preceded by, a fall in the domestic value. In other words, depreciating exchange rates are an effect and not the cause of domestic inflation. Hence, the continuous domestic inflation is a sign of a central bank's failing to fulfil its primary obligation to the community.

The new role of auditors of a central bank

The central bank auditors, both internal and external, have for long confined themselves to the financial type of auditing of the operations of a central bank. The objective of this auditing is to identify whether a central bank has complied with the set-financial rules and procedures, whether there are irregularities or malpractices in payments or recording transactions or whether frauds have taken place in the operations of a central bank. Internal auditors report on these aspects to the top management of a central bank, while the external auditors do so to alert both the management and the legislators. Such compliance auditing is necessary and useful, but not sufficient to gauge the risks faced by a central bank and, accordingly, to take early prescriptive measures.

A central bank may operate quite perfectly with regard to its internal procedures and systems. The accounts of a central bank may have been prepared having compliance to the best accounting standards. The external auditors may have given an unqualified certification to a central bank's financial statements. In the eyes of the public, a central bank may have been projected as a model institution to be emulated by others. Yet, all these salutary features which pertain to a central bank's past or current actions may hide the major risks it may be facing with regard to its future operations. It is the duty of the auditors to dig out these risk aspects and alert the management and, if necessary, the legislators, before it becomes too late to take any prescriptive measures.

This poses a daunting challenge to the auditors of a central bank. A central bank, with its unrestrained resources, may have staffed itself with the best technical talents in the main field of its operations. Auditors are now required to assess their work and make judgments about the adequacy and the consequences of such work. In doing so, they should exert utmost care not to make wrong or spurious judgements and give false alarms about an impending catastrophe in a central bank. To do their job effectively, auditors should be more knowledgeable of the technical side of the operations of a central bank than its internal technical staff. Moreover, they should arm themselves with knowledge of how other central banks are operating, how some central banks had got into difficulties due to irresponsible behaviour and the emerging global best practices of central banking. Hence, it is a continuing learning and knowledge enhancement process for auditors of a central bank. By any measure, this is not a simple challenge.

It is only with this superior knowledge base that auditors acquire the capability of making a proper risk assessment of a central bank and play their new role as a "**risk-alerter**" to the management and legislators. This requirement equally applies to both internal and external auditors of a central bank.

The major risks faced by a central bank

The policy failure risk, (that is, the inability to maintain the stability of the value of the currency on a continuous basis) and the associated reputation risk (that is, the public no longer trusts the central bank and its action) of a central bank are well known. But, a lesser known risk of a central bank is the "insolvency risk" which could loom over a central bank with or without the presence of the policy failure risk. In other words, a central bank can run the risk of being insolvent, even when it has been successful in maintaining the stability in the value of its currency.

The insolvency risk of a central bank is less obvious, because of the very nature of a central bank. A central bank, even if its capital is negative and its currency liability is not matched by an equivalent value of foreign assets or valuable domestic assets, could still continue to be in business unlike a private organisation. In the case of a private organisation, if the net-worth is negative, it has to be re-capitalised as an urgent need. If it does not happen, it cannot operate as a going concern and has to be liquidated on the ground of insolvency. However, a central bank can still operate with a negative net-worth, by continuing to issue currency as long as the members of the public are willing to accept such currency in exchange for the assets held by them. It could, in these circumstances, defer and hide the need for re-capitalising itself and continue to be in operation.

The fact that the insolvency of a central bank is not known to the outside world does not mean that a central bank is without problems. A central bank's operations are smooth and faultless, if its expenses are funded out of net interest income it earns on its foreign reserves or its domestic asset portfolio. But, if it has to meet its day to day expenses only by issuing currency, that is, by exchanging reserve money, its capital base gets further eroded reducing its ability to back the currency it has issued. Its continuous reliance on inflationary financing in this manner for running its affairs will ultimately render it a victim of its own irresponsible behaviour.

When a central bank has to be re-capitalised by the government by using tax payers' money, the bank would run a further risk. That risk is the loss of its independence. The legislators who now get an opportunity to scrutinise the bank's affairs may be tempted to tighten their control over the bank, because, in their opinion, the bank has failed due to the laxity of controls. The corollary would be for the central bank to lose the budget independence and, as a consequence of that loss, the policy independence as well. One cannot blame legislators or tax payers for demanding for greater control over the affairs of a central bank, because it is their scarce resources which are now used to re-capitalise a central bank. Since such scarce resources have better alternative uses, the temptation on the part of legislators to punish an errant central bank by tightening controls is unavoidable. But, for a central bank to conduct its policy actions properly, the budget independence is a must and if it does not have the budget independence, it cannot exercise the policy independence as well.

What are the early signs of insolvency of a central bank?

A central bank becomes insolvent when its capital is eroded to the extent that its net-worth turns negative. A central bank reaches such a catastrophic situation when it makes mounting losses year after year due to its engagement in imprudent financial transactions.

A central bank can always finance itself (and also the government) by inflating the economy. However, it also spawns the danger of a central bank getting trapped in an ever expanding

spiral of inflationary financing, if it does not pursue an inflation-fighting policy consistently. Economists have found that central banks, acting at the instance of their governments, have incentives to reverse the tight monetary policy after they have made some gains in controlling inflation. This is known as the "**time-inconsistency problem**"[2] or the "**prisoner's dilemma**"[3] faced by a central bank.

In the time-inconsistency problem, there is an unceasing battle between a central bank and the public for fooling each other. A central bank, in response to public's outcry against the high inflation, may pursue a tight monetary policy to lower the inflation rate. However, once the inflation rate falls and the public's outcry subsides, it no longer has the incentive to follow the same tight policy. Accordingly, in order to raise its expenditure levels (or alternatively, to provide more funding to the government), it may go back on its tight monetary policy and reflate the economy so as to extract real resources from the public. It, therefore, tries to fool the people by generating inflation without their knowledge. However, the public are also smart and aware that the central bank would reverse the course of its policy by inflating the economy after it has made small gains. This mistrust of the public about the policy actions of a central bank is well revealed by the exceedingly high inflation expectations they normally form about the future trends in inflation. Consequently, they also try to fool the central bank by asking for higher wages, if they are employees, or higher future contract prices, if they are producers, than the normal wage or contract price levels permissible under the now low inflation rate. This battle between the central bank and the people will trap the economy in a **high inflation-high wage spiral** making it a self-defeating enterprise for both the central bank and the public.

The high inflation in the economy now exerts pressure on the exchange rate to depreciate. Both the central bank and the government may harbour a false view in them that allowing the exchange rate to depreciate is equivalent to publicly accepting the failure of their actions, it would further raise the cost of living and it would worsen the budgetary outcome by raising the interest cost on the government's external debt. This false view may force the government to defend the exchange rate at the expense of the loss of foreign reserves of the central bank. At this stage, the auditors should notice a change in the composition of the assets of a central bank: a decline in the foreign assets and an increase in the domestic assets mainly in the form of lending to the government.

The change in the asset structure of a central bank leads to a series of unfavourable outcomes that raises the risk of insolvency of a central bank.

First, there will be a change in the composition of the income of a central bank. The foreign income will fall and the domestic interest income will rise.

Second, the decline in the foreign assets will force a central bank to borrow abroad on a short term basis, raising its foreign liabilities and interest out-payments.

Third, if the government is still bent on keeping the fixed exchange rate, even the borrowed funds would be used to defend the exchange rate, converting the net foreign assets of a central bank to a net foreign liability position.

Fourth, the defence of the exchange rate will create a liquidity shortage in the domestic money markets. The central bank may recoup the liquidity by expanding its domestic assets by lending to commercial banks and also to the government which is now unable to raise funds from the market due to the liquidity shortage.

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[2] Finn Kydland and Edward Prescott in their 1977 paper introduced this problem See, "Rules rather than discretion: The Inconsistency of Optimal Plans" *Journal of Political Economy, 85: 473-92*

[3] Alex Cukierman has chosen to call the problem "Prisoner's Dilemma". See, *Central Banking Strategy: Credibility and Independence* (1992), MIT Press, p 17-8.

Fifth, to pay interest on foreign loans and repay the principal, a central bank may be forced to make further foreign borrowings. This will enlarge the net foreign liability position and cause the interest payments to surpass the interest earnings. The losses so made will continue to mount, gradually eroding a central bank's capital base.

The end result will be the conversion of a central bank's net-worth from positive to negative. At that stage, a central bank will become technically insolvent. It actually becomes insolvent when it is unable to make further foreign borrowing and the domestic high inflation makes it impossible for it to fund itself by further issuing currency.

It is the duty of the auditors to be vigilant on the emergence of these signs and alert the management and legislators in time.

The actual insolvency of a central bank: the case of the Central Bank of the Philippines[4]

The Central Bank of the Philippines (CBP) became insolvent in late 1980s and had to be liquidated in 1993. The events that led to its insolvency are an exact replay of the story outlined above[5].

According to the data published by the CBP[6], it incurred losses from 1983 to 1990 year after year, making the total cumulative losses for the period equal to 144 billion Pesos. There were three sources of losses: losses arising from the foreign exchange swap arrangements which CBP entered with domestic banks; losses which CBP had to bear on account of providing forward cover for exchange risk involved in international borrowings of domestic corporations and interest rate losses arising from higher out-payments on foreign loans and central bank's own securities than domestic interest earnings.

The **swap arrangement** was a mechanism used by the CBP to boost its dwindling foreign reserves. When CBP lost its ability borrow abroad due to the continuously experienced balance of payments deficits and CBP's refusal to allow the currency to depreciate, it got the state banks and private corporations to borrow abroad under a guarantee by the government and swapped Pesos for the foreign currency loan proceeds. In the process, CBP assumed the exchange rate risk at the time the swap was reversed. Though this provided a temporary relief to CBP in the form of an augmentation of gross foreign reserves and a higher import cover adequacy, it forced CBP to take a huge loss amounting to 31 billion Pesos during 1983-90 on account of exchange rate risks. At the same time, the use of the foreign exchange balances so acquired for defending the currency led to an undue reserve risk by converting the foreign assets to a net negative position and forcing CBP to borrow abroad to settle its liabilities.

The **forward cover** was provided by CBP to local corporations, especially the oil corporation, by guaranteeing the exchange rate when they borrowed abroad in the wake of the balance of payments crisis. When CBP had to relax its grip on the exchange rate from time to time due to the non-availability of reserves, the forward covers given by CBP resulted in massive losses. The total of such losses for the period 1983-90 amounted to 20 billion Pesos.

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[4] There have been a number of central banks which had become insolvent due to the erosion of capital. For a survey, see, Kazuo Ueda, "The role of Capital for Central Banks", The text of Speech delivered at Japan Society of Monetary Economics on 25 Oct 2003. www.boj.or.jp.

[5] A lucid description of the events that led to CBP's insolvency is given by Mario B Lamberte in ***Central Banking in the Philippines: Then, Now and the Future*** Discussion Paper Series 2002-10, Philippine Institute of Development Studies.

[6] Various annual reports of the Central Bank of the Philippines. The author is grateful to Deputy Governor of BSP, Diwa C Guinigundo, for making available those annual reports and other literature on the liquidation of the CBP.

As mentioned above, the **net foreign assets** of CBP became negative from 1981 onwards due to the depletion of reserves and the increase in foreign borrowings. They were negative by 4 billion Pesos in 1981. But, the negative position progressively increased thereafter rising to a peak of 141 billion Pesos in 1990 and recording at an annual average level of 101 billion Pesos during 1982-90. The result was the payment of interest surpassing significantly the interest receipts. The total such losses amounted to 91 billion Pesos for the period 1983-90.

The net outcome of all these adverse developments was the decline in the **net-worth** of CBP to a dismal level of 2.6 billion by June, 1993 as against a total outside liability level of 605 billion Pesos and a domestic asset creation of 440 billion Pesos. The capital funds as a percent of domestic assets fell to an insignificant level of just 0.5% indicating that the entirety of the currency issue (monetary liability) had been backed by worthless domestic assets. By end 1993, the foreign exchange liabilities of CBP amounted to US$ 11.4 billion or 35% of the Philippine's GDP[7].

Thus, CBP became insolvent and had to be liquidated in July, 1993. A new central bank by the name of **Bangko Sentral ng Pilipinas** or **BSP** was set up under the patronage of the World Bank and the Export-Import Bank of Japan[8]. Arrangements were made to repay the liabilities of the old central bank in 25 years[9].

The issue at hand is how the oncoming signs of insolvency of CBP were not noticed by its auditors. The growing distress of CBP due to the wrong policy of defending the exchange rate at the expense of losing foreign reserves, accumulation of losses in CBP, rising foreign borrowings through unsustainable swaps and the depletion of net-worth of CBP were obvious to the auditors as early as 1985. It was simply the sad story of one mistake leading to another mistake and that mistake leading to a further mistake and so on. Once a policy making body gets entangled in an "**enmeshed policy paradox**" of this nature, it is impossible to escape the paradox without outside support. Had the first mistake, that is, defending the exchange rate at the cost of losing the reserves, were not committed, CBP would not have driven itself to insolvency. But, the auditors who were confined only to a compliance audit did not read the signs of impending risk build-up in CBP. Had the central bank management and the legislators been alerted at that time, CBP could have been saved from liquidation. But, the auditors failed to make that alert, because at that time, the audit programmes were confined to a simple financial compliance audit only.

What the auditors should look for

Since a central bank is a systemically important institution in an economy, the auditors of central banks should take extra care when the accounts of central banks are audited. The old maxim relating to the role of auditors is relevant here: "**an auditor is a watchdog and not a blood hound**". Accordingly, auditors are required to keep vigil on central banking activities and alert the relevant parties when there are signs of risks emerging. The central bank management and the legislators should take serious note of such alerts and take appropriate corrective and protective measures.

What are the signs of distress that auditors should look for?

First of all, a sign immediately visible would be the change in the structure of the assets of a central bank from foreign assets to domestic assets. The depletion of foreign reserves drives a central bank to a future risky situation. It will have to borrow abroad from foreign sources in

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7 As reported by *The New York Times,* June 14, 1993.

8 *Ibid.*

9 Ma. Cyd Tuano-Amador, "Central Banking in the Philippines since 1993", in *Money and Banking in the Philippines,* BSP, 2003, p 210

order to fund the immediate foreign exchange requirements raising both the income risks and foreign reserve risks.

The next sign will be the depletion of the capital base. In the current paper money systems with no backing of gold or foreign currency holdings, capital funds in a central bank serves to back the domestic asset creation. If the capital funds which are non-monetary liabilities are equal to the domestic assets (a hundred percent cover), then all monetary liabilities are backed by gross foreign assets similar to a currency board. Therefore, the auditors should look for the ratio of capital funds to domestic assets and if the ratio is above 100%, they could be complacent. However, the risk factor emerges if the ratio falls. The auditors should alert the central bank management and come to arrangement with it, to prevent its further depletion. If the ratio falls closer to 15%, the level prescribed in many central bank legislations as the minimum requirement, the auditors should issue a **red alert** to central bank managements. When the ratio falls below 15%, then, it is a matter of national emergency and urgent measures need be introduced to re-capitalise a central bank.

The third sign is the actual losses made by central banks due to larger out-payments.

The fourth sign is the necessity for issuing currency to finance a central bank's affairs, since it amounts to inflating the economy to meet a central bank's expenses.

Conclusion

The auditors of a modern central bank should play a different role today. That role requires them to be vigilant over the emerging risks in a central bank and alert all the concerned parties, management of a central bank and the legislators, so that early corrective measures could be taken to mitigate the risks. Since auditors are governed by the "**principle of public trust**", they would be liable for criminal negligence if a central bank becomes insolvent and auditors have not given early warning about it. To play this role effectively, auditors should endeavour to acquire the knowledge necessary for them to assess the work of a central bank and make judgments about the adequacy of that work. They should place themselves on a continuous learning programme so as to acquire not only the technical skills, but also the current global best practices relating to central banking. The central bank management on their part should heed to the warnings issued by auditors and make the necessary internal adjustments promptly.