

Conceptualizing the Process of Cleaning up Balance Sheets in Post-Crisis Thailand*

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To anyone surveying the Thai economic scene in, say the second quarter of 1998, it was clear that the critical problem was the quality of the balance sheets. If proper valuations were done on the assets in the balance sheets, almost all financial institutions and almost all corporations would be insolvent. This arises because at the time investments in these assets were made (mostly during the bubble), an overly optimistic scenario was imagined by the investors, and by the lenders who put up the money for the project. These expectations were now known to have been false. The assets that were bought during the bubble would now be overvalued, and at that valuation, they would not be competitive. On the liability side, for companies that borrowed overseas, the jump in the debt due to the exchange rate depreciation is sometimes sufficient to make many firms insolvent. If the servicing of the capital (debt and equity) used to acquire these assets were to be at the old set of values, firms would immediately run into severe cash-flow problems, and would be unable to continue to function.

Nonetheless, the physical capital was there – indeed, in many industries, Thailand at that point had brand-new equipment, embodying the latest technology. The problem was the valuation in their owners' balance sheets. Clearly, these balance sheets would have to be cleaned up. One useful way to conceptualize this cleanup problem is to conduct the following thought experiment.

Imagine an omniscient supercomputer with detailed knowledge of the Thai and the global economy, the details including assets and liabilities of every firm. This computer would be asked to compute the general equilibrium of the economy at full employment, given information available at a certain date, say in mid-1998. This computation would yield current and future prices for outputs and inputs, and therefore the values of all the physical assets in the economy. Most of these physical assets would be under the control of some firms or households. Included in the outcomes of the calculations would be the exchange and interest rates ruling in the economy.¹

Once that was done for the assets of all the non-financial firms, it will be found that many of them would be insolvent, or would have unhealthy debt/equity ratios. Adjustments to the liabilities would now have to be made, with the shareholders' equity naturally taking the first hit. Should that equity be reduced to a negative level, then the ownership pattern would have to be changed, after which the debts would have to be written down. Some conversion from debt to equity may have to take place. The computer will be programmed to make all these adjustments, with the following constraints imposed: the combined balance sheets of the firms must be such as to generate sufficient new investment to ensure full employment from that point on. At the equilibrium exchange rate, interest rate, wage rate and other factor prices to be calculated by the computer, some firms may have to be closed down as being unviable, under these new circumstances.

The adjustments on some of the firms' debts just described would naturally have an impact on their lenders' assets. The lenders' balance sheets will now have to be adjusted downward. A decline in the asset values would require a recapitalization of the banking system. Part of this would be diverted from household savings, channeled through the capital markets to the banks. But where the financial institutions become bankrupt, the recapitalization will in most cases have to be done by the government, on account of the deposit guarantee. This in turn will impose liabilities on the taxpayers. Some of the taxpayers will be households, but some of whom may be the corporations whose balance sheets had already been adjusted. A new adjustment would have to be incorporated in order to accommodate the new tax liabilities. This leads us naturally to the next iteration.

Once all the computations are done, the omniscient computer would have the "true" valuation of the items in everyone's balance sheets. If the task could be performed overnight, and if everyone obediently obeys the computer's instructions immediately, then the economy would just as promptly be on the new equilibrium

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path, which was set by design to be at full employment.² There would then be no recession.

In the Thailand of 1998 however, there was no omniscient computer. The adjustment was taking place in real time, and not in computer time. Company owners, managers, bankers who had lent to them, and the government that taxed them or underwrote deposit guarantees had to struggle with their own and others' ignorance to come up with some sort of "true" equilibrium valuation of assets – in a situation where it was not at all clear if there was any equilibrium. They then would had to struggle with each other, in countless meetings and in the courts, to effect transfers of ownership of various assets and eventually of bankrupt firms, at some prices. While these struggles are taking place, the clock would still be ticking, and some transactions had willy-nilly to take place, all at the current prices at the time. More to the point, some transactions would be *prevented* from taking place, because the balance sheets had not been cleaned up. The out-of-equilibrium economy would be more demand constrained than at equilibrium. It would thus be working at less than full employment level.³ Specifically, because many borrowers' balance sheets, not have been cleaned, would show them to be insolvent, they would not be able to borrow from the banks, nor obtain new capital from equity investors. A great deal of new investments would not take place, keeping the economy depressed.

In this view therefore, the downturn in the economy and the consequent delay in economic recovery was entirely due to the delay in adjusting the wrong valuations in the balance sheets. If the adjustments were taking place in real time, the "true" balance sheet values (that is, those calculated by our omniscient computer and which assume instantaneous adjustment) would recede into insignificance. The values as they emerged from the actual cleanup process may not even move toward the "true" equilibrium value generated by the computer, but would be affected by the time taken to get there and the events that took place during the delay. With the economy in recession, the asset values would be less than the "true" computer-generated value, which was set at full employment of the economy. The more delay there is, the greater the departure from these values. It was indeed possible that the economy may get sucked into a vicious cycle, as the delay in balance-sheet cleanup caused asset values to decline, making the cleanup slower and more contentious, causing them to decline further. This was the root cause of asset price deflation, or, even worse, of the asset market freezing up into immobility altogether.

From this analysis, one strategy suggests itself. This strategy, which I shall call the neoclassical strategy (sometimes also called the market-based approach), was to mimic as much as possible the computer procedure outlined above, that is, have everyone go through the process of bankruptcy procedures, foreclosure, asset sales, debt write-downs, recapitalization and all the rest. But the government had to make sure that the adjustment processes were as speedy as possible. More concretely,

in Thailand, legal reform of the antiquated bankruptcy and foreclosure laws should be rapidly implemented. This was, by and large, the route taken by the Thai government, at least when Tarrin Nimmanhaeminda was finance minister, with the support and encouragement of the International Monetary Fund. In a sense, the auctioning off of assets from the closed finance companies by the Financial Sector Restructuring Authority (FRA) described above was also in keeping with this approach.

The alternative strategy would have been to "warehouse" temporarily all the bad loans somewhere in the system, and have the banks resume their operations unaffected by the state at least of their own balance sheets, or even of their customers' balance sheets. Indeed, if the affected firms run into working capital shortage, the banks would continue to supply them with liquidity. Similarly, the central bank would also continue to supply the banks with liquidity for this exercise. This allows non-financial firms to continue investing without being unduly affected by their current debt status. The economy would thus continue ticking over and indeed start to recover immediately, completely ignoring the misaligned values of the balance sheets in the system.

After taking over the assets from the banks, the organization that serves as the "warehouse" could tackle the cleanup of the balance sheets. But by rearranging the sequence does not imply that the pace of the cleanup work could be slowed down. That work must be done expeditiously. Warehousing the bad loans should not be the excuse for postponing the cleanup process indefinitely. Else the assets would sharply deteriorate.

In this approach, there is in the beginning no loss in income and little loss in value that arises from awaiting the resolution of the debt workout, and on this ground it has much to commend it. Because of its appreciation of the problems raised by real-time equilibrating process, and the role of income rather than price adjustment, this approach is best described as Keynesian, although, as far as I am aware, the great man never pronounced anything on this subject.

However, the Keynesian approach has its own set of problems, the main one being moral hazard. First of all, the temptation would be very strong to forget the problem-loans that have been warehoused – a case of "out of sight and therefore out of mind." No one really has an interest in worrying about them, clearly not the insolvent firms; not the banks, now that the government has taken the load off them; and not the government, for trying to clean up the balance sheets also entail some very unpleasant and unpopular decisions.

Second, even if somebody does worry over the loans, there is an inherent contradiction in this approach. To keep the recovery going, borrowers cannot be penalized while the workout process is going on – they have to be supplied with liquidity to continue operations at the old level. Under such circumstances, they can use the new borrowing to acquire new assets and move them around, while stripping the pre-existing assets down to minimize repayments on the original loans.

Now, combine these moral hazard problems with the fact that the warehouse usually would have belonged to the government, which in Thailand is particularly prone to corruption, and it can be seen why there was a reluctance to apply the Keynesian approach here. Nevertheless, since the advent of the Thai Rak Thai government in January 2001, this approach is being revived. A Thai Asset Management Company (TAMC) is now being set up.

But because TAMC arrived at a different sequence from their counterparts in other countries – Malaysia and Korea are often cited as exemplars – its role is necessarily different. Much of the damage to the economy and therefore to asset values had already occurred. The firms and assets that could be kept intact had already gone through either the Corporate Debt Restructuring Advisory Committee (CDRAC) process or the bankruptcy courts. The assets that remained would only command break-up values. TAMC would therefore play more of a role as an asset disposal unit, not unlike the FRA, with an additional wrinkle. Whereas the FRA was in charge of disposing of financial institutions' assets, with its buyers still having to go collect on the loans given to the debtors, TAMC will itself directly deal with the debtors, in many cases, if not in most, actually foreclosing on properties. Consequently, unlike the FRA, a key feature of the TAMC law is to empower it to grab these assets.

ENDNOTES

¹ Krugman (1999) has shown that in a simplified but similar model that multiple equilibria are possible, which could lead to a jump between equilibria characteristic of crises. For our purposes, it suffices that our omniscient computer will select the full-

employment equilibrium, which will fix the exchange rate.

- ² Theoretically inclined readers may wish to compare the above thought experiment with Walras' tatonnement process.
- ³ Theoretically inclined readers may notice the similarities of this argument with the group of models pioneered by Clower (1965) and Barro and Grossman (1971), but these concentrate on non-clearing labor markets, while the problem cited above concerns non-clearing real asset markets. Actually, if such an approach is taken further, and different degrees of rigidity or flexibility in the asset markets introduced, then Dornbusch's (1975) analysis of exchange rate dynamics can perhaps be adapted to cover the currency market turmoil in the year after the baht was floated.

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