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Bank Nationalization: What is it? Should we do it?

Bank nationalization is the topic "du jour" in Washington and on Wall Street. Citigroup has essentially proposed a partial nationalization that would give the government 30-40% ownership. The stock market, for its part, is so concerned about the possibility of wider bank nationalizations that key Administration and Fed officials are spending much of their time trying to calm the markets by underlining their desire to avoid nationalization. Unfortunately, people often seem to be talking past each other in this debate.

Nationalization can be a confusing topic because it means different things to different people and there are a variety of reasons given by advocates for supporting such a move. This paper explains the various meanings and purposes of "nationalization," lays out a framework for evaluating the necessity and usefulness of bank nationalization, reviews the most critical implementation issues that would arise, and provides some recommendations. Please see also the author's previous paper, "Bad Bank", "Nationalization", "Guaranteeing Toxic Assets": Choosing Among the Options.

The following questions are addressed below:

- The background: Why might widespread nationalization be necessary?
- What does it mean to "nationalize the banks?"
- What would be the purposes of nationalization?
- What are the arguments against nationalization?
- How has nationalization worked previously in the U.S. and internationally?
- How could nationalization be implemented most effectively?
- What should we do now?

Overall conclusions

Full nationalization may prove necessary as a last resort for one or two of the larger banks, but should only be undertaken when, and if, it is clearly necessary. More widespread nationalization is unlikely to be needed unless the economy performs substantially worse than most economists expect. Although we all crave certainty, it would be better to wait until we knew that this pessimistic case was likely before nationalizing more widely, given the serious social and financial costs of that extreme step.

Beyond the one or two full nationalizations that might prove necessary, it may well make sense for the government to take substantial stakes now in additional large banks in a form that some may view as a partial nationalization. The Administration's plan to perform a rigorous, uniform "stress test" on the nation's largest banks is a good one. Those banks which the tests show need additional capital would be required to raise it privately in the short term. Failing that, the federal government would buy preferred

shares that would convert over time into common shares, unless paid down before then by new private capital or future profits. For the weakest banks, this could give the government a majority voting stake upon conversion of the preferred shares into common shares.

Federal Reserve Chairman Bernanke summarized the Fed's approach, which is also that of the Administration and other regulators, in Congressional hearings yesterday. He said, "I don't see any reason to destroy the franchise value or to create the huge legal uncertainties of trying to formally nationalize a bank when it just isn't necessary." He added, "I think what we can do is make sure they have enough capital to fulfill their function, and at the same time we exert adequate control to make sure that they are doing what's necessary to become healthy and viable in the longer term."

This is a sensible approach. However, if it becomes clear through a rigorous testing process that a bank is already insolvent or is at high risk of becoming insolvent, then it would be better to go directly to the step of full nationalization. This may require some payments to existing shareholders of such banks that are not yet insolvent, but that cost should be modest given the current very low stock prices of the most troubled banks.

This paper concentrates on the largest banks, since actions here will drive the economy. However, most of the conclusions would apply to mid-sized and smaller banks as well. The main difference is that the traditional approach of forcing weak banks to sell out to stronger ones is also a viable option for these smaller banks. We may have already reached the limits of that approach for the very largest banks, since none of them appear strong enough now to take on another major acquisition of a weak competitor.

The background: Why might widespread nationalization be necessary?

Before exploring nationalization in depth, it is worth reviewing why there is so much talk of it. Some of the discussion stems from the travails of Citigroup and Bank of America, which many observers fear will become insolvent without much more aid from the government. In Citigroup's case, management is even proposing an exchange of the government's preferred shares for common shares, which would effectively achieve a partial nationalization by giving the government up to 40% ownership. In addition, there are advocates of a widespread nationalization of U.S. banks based on the belief that the banking system will become deeply undercapitalized as a result of the current recession. This belief stems from a view of likely credit losses at U.S. banks, based on a view of the prospects for the overall economy.

It is instructive to compare the expectations for credit losses across the three most fleshed-out analyses that the author has seen, all from January 2009. The lowest estimate is from the International Monetary Fund (IMF) using their revised forecast. (See the IMF's "Global Financial Stability Report" from October 2008 and its "Global Financial Stability Report Market Update" from January 2009, for the details of their analyses. Both are available at www.imf.org.) Goldman Sachs has published estimates modestly higher than the IMF's, (contact Goldman Sachs directly for "US Economics Analyst, Issue 09/03".) Finally, Professor Nouriel Roubini of the Stern School of Business at New York University, has published the most pessimistic major forecast, (see www.rgemonitor.com.)

Table 1 shows the expected credit losses for U.S. banks and broker-dealers from each of the analyses, actual and potential sources of replacement capital, and the net effect on systemwide capitalization.

Table 1: Projected losses on U.S. credit risk and effects on total banking capital (\$ billions)

	IMF	Goldman	Roubini	Average
Estimated global losses on U.S. credit	(2,200)	(2,000)	(3,600)	(2,600)
Loss estimates for US banks and broker/dealers	(900)	(1,000)	(1,800)	(1,233)
New capital raised already ¹	510	510	510	510
Reduction of capital needs by US guarantees ²	20	20	20	20
Portion of TARP 2 assumed to be infused ³	200	200	200	200
Core bank earnings 2008-2010 ⁴	500	500	500	500
Cash dividends paid, 2008-2010 ⁵	(90)	(90)	(90)	(90)
Tax benefits on losses ⁶	50	50	50	50
Total change in capital	290	190	(610)	(43)

- 1. Average of estimates from Goldman Sachs and Roubini
- 2. Guaranteed amount * 80% reduction in risk-weighted assets * 6% "well-capitalized" tier 1 capital ratio
- 3. Author's estimate for allocation of second \$350 billion tranche
- 4. Author's estimate based on historic earnings plus credit charges at FDIC-insured banks
- 5. Author's estimate based on historic dividends at FDIC-insured banks, reduced for 2009 and 2010
- 6. Author's estimate based on historic income taxes at FDIC-insured banks

Each forecast starts with a projection of losses from U.S. credit instruments (both whole loans and syndicated/securitized products.) These loss estimates are substantially higher than those for "toxic assets" alone because many of the credit losses stem from more standard, conservative loan types, such as commercial and industrial loans. For example, Roubini's analysis projects that under 40% of the credit losses would come from securitized credit products. The proportion from "toxic assets" would be even lower, as some of these securitized products are not generally viewed as "toxic," since the percentage of losses on these products are expected to be fairly low. However, they add up to a large amount in total because there are large volumes of lower-risk products such as Prime Mortgage-Backed Securities and Investment Grade Corporate Debt.

It should be noted that all three analyses build up their aggregate figures from a category by category basis. This careful analysis is a key reason why the author emphasizes these three reports. For simplicity, however, the detailed figures are omitted here, as it is only the aggregate losses that affect bank capital.

Many of the credit losses will not hit U.S. banks and broker dealers because the risks were transferred to foreigners or non-bank buyers through securitization or loan syndication, so line 2 on the table is roughly half of line 1. Line 2 is shown in bold because this is our starting point, the projected aggregate effect of credit losses on the U.S. banking system.

These large losses will be offset substantially by several sources of new capital. First, there was approximately \$510 billion of capital raised by the U.S. banks and broker dealers through 2008, much of

it public money. Second, the government reduced the needed capital for Citigroup and Bank of America by agreeing to guarantee all but about 20% of the potential losses from specified large pools of their assets. This guarantee was reflected in a lowering of the capital required to back these assets, producing the same net effect as adding an equivalent amount of capital while keeping the capital requirement flat. Third, it appears that approximately \$200 billion of the second installment of the TARP program would be available for capital infusions.

Finally, the banks will accumulate substantial core earnings during this recession, prior to the effect of credit losses. We have already factored in the full effect of projected credit losses and should therefore not double-count by using net income that also reflects those credit losses. Not surprisingly, banking is very profitable even in recessions, if one ignores the effect of credit losses. One might object that the capital from these core earnings will not be available up-front, but it is important to note that the projected losses will also manifest over time and therefore will not diminish capital entirely on day one. This is true even without regulatory forbearance – some losses in this recession will not become evident until 2010 or even later.

In sum, the banking system can be restored to the capital levels that held prior to this recession, which were considered more than adequate at the time, if the economy and credit losses perform as the IMF or Goldman Sachs expects. These forecasts are roughly in line with the consensus economic view.

Professor Roubini, however, has a considerably more pessimistic forecast for the harm from this recession. For example, he is currently forecasting a 5% total drop in gross domestic production from peak to trough, while the consensus forecast is in the 3% range. (For those who follow economic numbers less closely, please note that the much-reported decline in the most recent quarter was, as always, given on an annualized basis, making it appear four times larger. The actual drop thus far in the recession is around 1%, a rate that, in very rough terms, is expected for the next couple of quarters, as well.) In addition, he estimates that housing prices will drop another 20%, at or above the high end of the range of most predictions.

This grim forecast drives his estimates for credit losses, which are much higher than from the IMF and Goldman. It is worth emphasizing this point. Roubini's methodologies for projecting credit losses appear to be generally in line with those of the IMF. His figures are so much larger primarily because his view of the economy is grimmer. If he is correct, there will be a much larger capital hole to fill than is available from currently foreseen sources, which increases the pressure for nationalization.

So far, this discussion has focused solely on the adequacy of capital for the entire U.S. banking system. Clearly, a major capital deficit for the banking system as a whole would necessarily imply that a number of individual banks were undercapitalized, raising the likelihood that nationalization would be necessary. However, systemwide capital problems are not necessary for individual banks to be in trouble; the distribution of capital across banks is also important. The system could be adequately capitalized, yet individual major banks could be substantially undercapitalized, offset for the system as a whole by extra

capital at other banks. In that case, one or more major banks might need to be rescued with such large capital infusions that it would make sense to nationalize them instead.

Unfortunately, it is extremely difficult to determine from the outside the true capital adequacy of the complex institutions that operate the nation's largest banks. Not the least of the problems is determining the fair value of securities and loans on a consistent and accurate basis, which might change the reported figures substantially for a number of these banks.

Table 2 is a very rough attempt to show the dispersion of capital adequacy across the key banks that participated in the first phase of the TARP's capital injections. The ratio of tangible common equity to total assets is shown for each of these banks, taken from their latest quarterly public filings. Tangible common equity is the accounting (or "book") value of the company's common stock, minus the book value ascribed to "intangible assets." Intangible assets generally represent the value placed on an acquisition, such as of another bank, over and above the book value of the acquired asset at the time of its purchase. These usually represent legitimate value since companies are often worth considerably more than their book value, because of their potential to generate strong future profits. However, the most conservative valuations of a bank's solvency generally exclude the value of intangibles, since it can be hard to obtain cash for those intangibles at a time of financial distress.

Again, it is important to stress that Table 2 is not intended to show relative capital strength in any definitive way. For one thing, the riskiness of the assets at each bank will vary. In theory, a bank with a lower level of tangible common equity to assets than another bank could still be better capitalized, because the assets it held were much less risky. However, this ratio does have value as a crude indication of the dispersion of capital adequacy across the industry.

Table 2: Ratio of tangible common equity to total tangible assets for selected large banks

	Bank of America	Merrill Lynch	Citigroup	Goldman	JPMorgan	Morgan Stanley	Wells Fargo ¹
Tangible common equity ²	2.8%	1.1%	1.8%	4.9%	3.8%	4.4%	3.5%

- 1. Includes Wachovia acquisition, which closed at the end of December 2008
- 2. Based on reported figures from each company for EOY 2008, plus author's calculations

Clearly, there is considerable variation in capital adequacy across the large banks. Further, it is no accident that the financial markets have focused on Bank of America and Citigroup as the two large banks that are viewed as most weakly capitalized. Please note that the Bank of America acquisition of Merrill Lynch occurred at the beginning of January, 2009. The combined tangible common equity ratio of the combined entity falls somewhere between the 2.8% of Bank of America at the end of 2008 and the 1.1% of Merrill Lynch.

The true capital adequacy will be better measured in the upcoming stress tests planned by the Administration and regulators, which may indeed reveal that one or more of the largest banks is sufficiently in need of capital that some form of nationalization may be necessary.

What does it mean to "nationalize the banks?"

Nationalization means transferring the ownership or control of one or more banks from the shareholders to the government. This is not a new policy for the federal government. Bank regulators have stood ready for decades to take over an insolvent bank, or one on the brink of insolvency, if it is not possible to find private capital to shore up the bank nor find a strong acquiOften applied to small banks, this practice has applied even to quite large banks in rare circumstances -- the FDIC took over Indy Mac bank in 2008 and Continental Illinois in 1984. The issues in question today have to do with whether the government should be quicker to do this, whether the practice should be more widespread, and how any nationalization should be implemented.

Nationalizations can vary on at least the following dimensions:

Full or partial nationalization? The government can take 100% ownership or simply a commanding majority stake. This choice depends heavily on what purposes the nationalization is intended to achieve, as discussed in the next section.

Temporary or permanent? There is a very strong consensus in the U.S. that any nationalization should be as short as possible to achieve the purpose. Indy Mac was sold again within a few months. On the other hand, the government's stake in Continental Illinois was sold down over a seven year period, despite hopes of a much quicker exit. Under current circumstances, there is a good chance that nationalization of one of the larger U.S. banks would involve government ownership for a period of years. These are complicated entities with problems that go beyond a set of well-defined "toxic assets," as is discussed further below under disadvantages of nationalization.

How will the nationalized banks be controlled? If a major bank were to be controlled for more than a short period, decisions would have to be made about ongoing operations. The first question is to what extent existing management would play a role. Beyond that there are a host of questions, such as whether to hold or sell foreign operations or various non-banking operations. These key questions are discussed in several places below.

What would the exit process be? Assuming the nationalization is intended to be temporary, a process would have to be put in place to determine how and when to exit. This would implicitly or explicitly involve difficult questions as to whether it is more important to return the bank to private hands quickly or to maximize the return to taxpayers, which might take longer.

What would be the purposes of nationalization?

The principal purposes of nationalization can be one or more of the following:

Avoid "throwing good (taxpayer) money after bad." It is feared that some banks receiving large quantities of government aid will never be able to support themselves independently again, bleeding taxpayer resources until they are eventually cut off by the government and taken over. In such a case,

the cost to the taxpayer may be considerably smaller if a bank is taken over quickly. Proponents of nationalization point to the positive experience of Sweden, which nationalized banks, as opposed to the "lost decade" faced by Japan, which tried not to do so. (See further discussion of the Swedish case below.)

Transfer control of operations away from managements of banks that have lost credibility and have a high risk of insolvency. The economy as a whole works better when there is a dynamic banking system which has the confidence of its depositors, borrowers, and trading counterparties. The banking system plays a key role in allocating funds to worthy projects. When this allocation falters, as it has over the last year, it can do major damage to the economy. Many observers have expressed concern that some of the largest banks are, or will turn into, "zombie banks" with no real future. Such banks could further endanger our financial system by continuing misguided policies or gambling on high-risk strategies as their only hope for salvation. Even if they avoid these dangers, the very existence of large zombie banks would make it more difficult to restart the flow of credit, since these banks would find it difficult to take on any additional risk for some time, possibly years. In the meantime, they would tie up deposits and other valuable resources that could have provided more support to the economy.

Save taxpayer money by forcing losses onto shareholders and creditors. Some advocates of nationalization believe that it is a mistake for the government to provide aid to banks without wiping out existing shareholders and causing creditors to share in the losses. That is, the government should force a weak bank to shore itself up by raising private capital. If this is not possible, as would be true in many cases, advocates argue that the government should seize the institution, eliminating the value for existing shareholders. In addition, some believe that the debtholders should be forced to bear some or all of any remaining losses, perhaps by going through a forced debt-to-equity swap, as often happens in bankruptcy for non-financial corporations.

Recover taxpayer money by capturing the "upside" potential from a bank revival. Some critics of the Troubled Asset Relief Program (TARP) believe that the government erred by not insisting on owning common shares, which represent an ownership stake in the company. If the banking system does indeed return to full functionality, such shares could be worth considerably more than the debt-like preferred shares into which the government has been investing. Buying large quantities of common shares in the more troubled banks would likely give the government a majority ownership stake, effectively creating a partial nationalization.

Avoid future moral hazard issues and punish managers of banks that took excessive or stupid risks. To the extent that nationalization destroys value for existing shareholders and creditors, it sends a signal that the owners and creditors of banks must be alert in the future to restrain managements from taking excessive or stupid risks. Most forms of financial rescue weaken this message by reducing or eliminating the harm to these parties. Similarly, if nationalization results if the loss of jobs by senior managers, it adds to the incentives for managements themselves to be more careful in the future. In addition to these lessons for the future, some observers believe that simple justice requires punishing managements and shareholders for the harm these banks have caused the economy.

Redirect bank policies towards socially desirable goals and away from bad practices. An ancillary advantage of nationalization, in the eyes of some advocates, appears to be the ability to influence bank practices away from actions viewed as bad (excessive compensation, for example) and towards the good (lending more freely to creditworthy customers, for example.) These advocates are frustrated by a perceived inability of the government to move banks in this direction, despite directing large amounts of aid to them. Actual ownership, through full or partial nationalization, would provide considerably more influence.

What are the arguments against nationalization?

The positives of nationalization were described above, but there are clearly a number of negatives as well, which is why it has taken an extreme financial environment to bring out the recent calls for nationalization. The long and sobering list of negatives leads the author to support nationalization only when it is clear that there is no other reasonable approach. The negatives include:

The government is almost universally considered to be worse at running banks than is the private sector. The central task of banks in our economy is to allocate funds to the projects with the greatest risk-adjusted returns. There is a strong consensus that, for all its flaws, private enterprise in a capitalist system performs this allocation process more effectively than governments do. For example, Paul Krugman, the Nobel prize-winning economist, and a supporter of nationalization, approvingly quoted the Obama Administration's position: "Robert Gibbs, the White House spokesman, believes 'that a privately held banking system is the correct way to go.' So do we all." It is just that Krugman and others feel that a return to a sound privately run banking system requires some nationalization along the way.

The large banks being considered for nationalization are huge and extremely complex. A nationalization of Citigroup or Bank of America, the two banks most frequently cited by observers as possible targets, would be a much larger undertaking than any previous nationalization. In fact, the difference in size is staggering – Citigroup has over \$2 trillion in assets, roughly 50 times the \$41 billion in assets that Continental Illinois had or the \$34 billion in assets at IndyMac Bank.

In addition to sheer size, the largest banks today are also complex organizations with many sub-components, including pure investment banking functions and international operations that did not exist in previous nationalizations. Nor is the Resolution Trust Corporation (RTC), for all its successes, a good parallel. That organization was established in 1989 to take over the assets of failed Savings and Loans. It faced a massive undertaking, but purely focused on maximizing the value of the assets it took over. This is very different from providing ongoing banking services working with existing customers and counterparties. The task could be simplified by halting ongoing operations, but there would be an enormous financial cost to curtailing profitable operations rather than working to find a buyer for them. This is what Chairman Bernanke was referring to when he warned against actions that would "destroy the franchise value" of these banks.

Transitional costs would be significant. Each of these banks has good, profitable operations within them. The taxpayers, as the new owners, would want to ensure that these profitable operations were disrupted as little as possible. However, this is not an easy thing to do in a government take-over, particularly if a number of top managers were to be replaced. The uncertainty alone would make it difficult to execute certain strategies that require coordination among multiple parties. In addition, of course, there would be good managers and traders who would choose to move to other firms, especially if their deferred compensation has been wiped out because their stock became worthless, removing a significant disincentive to changing jobs.

Multiple nationalizations at once would strain government capacity. Even if the government were capable of temporarily running one of these banks as effectively as existing managements, which admittedly may appear at the moment to be a low hurdle, multiple nationalizations might make this difficult. There are only so many government managers capable of an excellent response to this tough challenge. Bringing in staff from outside the government would almost certainly be necessary, but would add its own timing and logistical issues.

The government would likely own these banks for years. Virtually all American supporters of nationalization view it as a temporary receivership. Unfortunately, the complexity and size of the largest banks would almost certainly require major government ownership for many years, exacerbating the concerns about the government being a worse long-term owner than the private sector. First, there simply are no acceptable buyers at the moment with the wherewithal and interest in buying all or a major part of Citigroup or Bank of America at a good price. It will likely be some time before private capital is interested in re-entering the field in the necessary size. If anyone is lured in before then, it would almost certainly be as a result of a truly "fire sale" price. Second, the very complexity and interconnectedness of the parts of these large banks would require a long time to sort out, again unless the government were willing to sacrifice a great deal of economic value for speed.

It is worth remembering that it took the government seven years to completely divest Continental Illinois, despite the much more benign environment, including a roaring bull market for much of the period. Citigroup has 50 times as many assets and a much more diverse set of operations. Similarly, there was great hope of divesting many of AIG's operations quickly, especially as some of them are strong operations with their own well-respected brands. To date, however, there has been very little progress on this score, largely because everyone, it seems, is trying to divest operations at the same time.

Potential political pressures for uneconomic activities. Anytime the government runs a lending institution, whether a long-term wholly-owned entity, or a temporary nationalization, there is the risk that political pressures will cause the lender to make uneconomic decisions. On a large scale, pressure for the nationalized bank to lend freely in the middle of a recession has the potential to create massive losses. There will doubtless be a number of good loans to be made, but formal or informal quotas could create pressure to make more marginal loans that could backfire if the economy deteriorates further. On a smaller scale, it may be difficult for the bank to refuse loans to pet projects of key politicians and

bureaucrats. Whatever the validity of further lending to the auto sector, it is easy to imagine that a nationalized bank would feel pressure to step forward and take risks in this area.

Even if the intent of the Administration is to avoid political interference, the formerly private sector managers at the bank will be extremely focused on determining what they have to do in order to retain their jobs, or even advance, in the new regime. There will be a tendency to over-interpret even modest signals.

Large potential losses for the taxpayer. Even if the government takes the toughest approach and wipes out shareholders and causes some losses for bondholders, the taxpayers are likely to own the performance going forward. Owning 100% of a lending institution in the midst of the worst recession in decades would carry significant risks. Some of this risk might belong to taxpayers anyway under other rescue schemes, but the total exposure would almost certainly be higher under nationalization.

Disruption of existing relationships. Each of these banks has built a valuable web of lending and other relationships over the decades. There is a real risk that the best of these customers or partners will move their business relationships elsewhere, in order to reduce uncertainty. Even if they are comfortable in the short-run that the government will not take steps that hurt them, they will be on notice that the bank will be sold as soon as feasible, implying a second change in relationships for them.

Scaring shareholders and creditors of other weak banks. Once the first nationalization of size occurs, there will be a great deal of speculation by investors as to which banks may be nationalized next. This could weaken still further some banks that are otherwise healthy enough to survive, as they remain subject to the financial market's judgment, with its occasional recent bouts of paranoia. This issue would be exacerbated considerably if creditors of banks suffer a loss in the early nationalizations. Large depositors and trading counterparties would likely grow concerned that the weak bank would be unable to raise additional private funds at reasonable rates, due to creditor fears of losses in future nationalizations.

Pricing and fairness issues in the nationalization. It is clear that in a true insolvency, there is no requirement to pay the existing shareholders for taking away their bank. However, the stronger the bank is, the more likely it is that fairness and/or law may require some payment to the shareholders. The federal government was forced to pay out large sums to former shareholders of Savings and Loans that were taken over in the 1990's because there was a decision to reverse previous promises of regulatory forbearance. There could be another set of issues going forward, especially if the financial markets make an unexpected comeback that suggests the takeovers might not have been necessary. This is presumably what Chairman Bernanke was referring to in alluding to the "huge legal uncertainties" of taking full control.

How has nationalization worked previously in the U.S. and internationally?

There is a long history of bank nationalization around the world, including here in the U.S. Sometimes nationalization has been intended to be permanent, in order to achieve some larger policy objective, which is not something being advocated in any significant way in the U.S. This section will focus on nationalizations that were intended to be temporary and were caused by a banking crisis that required one or more major banks to be taken over, cleaned up, and re-privatized.

U.S. nationalizations

Nationalization has been a long-standing part of the repertoire of bank regulators in the U.S., however, it is rarely applied to the largest banks. The most prominent postwar nationalization was that of Continental Illinois in 1984. The bank had been a significant and well-respected competitor for many years when it decided to go for rapid growth in the commercial lending market. It ramped up its effort sharply in the late Seventies and into the Eighties, with the usual result that it found itself with many bad loans. (Rapid growth is often dangerous for financial institutions, since it tends to make lenders less careful and because they often have to compromise on credit quality to gain market share.) The general problem was exacerbated by an unfortunate relationship that was developed with Penn Square Bank in Oklahoma, which originated large volumes of fraudulent energy loans for Continental Illinois during the oil boom.

At its peak, Continental Illinois was the sixth largest bank in the U.S. with over \$40 billion of assets. (It is a measure of the low level of concentration of the banking industry of the time that \$40 billion was sufficient to give it that ranking.) This size led the regulators to conclude that it was indeed "Too Big to Fail," forcing them to step in with extraordinary aid, rather than simply closing it down, selling off the pieces, and allowing creditors to take losses. In 1984, the FDIC took an 80% stake in Continental Illinois, in exchange for a significant investment and liquidity guarantees. The bank was pushed to bring in new management, split into a good bank and a bad bank, and significantly reduce its size. Jim Swearingen, a well-respected former CEO of Amoco, was appointed to run the bank.

Continental Illinois is appropriately viewed as a success, as the intervention limited the cost to the taxpayer while preventing a crisis of confidence in the system as a whole and avoiding contagion that might have brought down some other large bank. However, it should be noted that the taxpayers did not manage to completely divest their stake for seven years, in spite of a reasonably healthy banking system and a roaring bull market for most of the period. This, despite the relative simplicity of the bank compared to a modern industry leader. As was noted earlier, Citigroup has approximately 50 times the assets that Continental Illinois did, as well as extensive foreign and investment banking operations.

The next major nationalization was last year, when IndyMac Bank, was taken over. IndyMac had \$34 billion of assets and a presence as a major mortgage lender. Its troubles were largely those of the whole industry, exacerbated by management mistakes and an unfortunate concentration in formerly hot housing markets that collapsed in 2007 and 2008. The government owned IndyMac for about half a year

before selling it to a group of private equity investors at the beginning of 2009. The extent of the cost to taxpayers is not yet known, as the government provided extensive guarantees on troubled assets.

One feature to note with IndyMac is that the FDIC used it as the base to try a new approach to mitigating mortgage foreclosures. Whatever the merits of the approach, which many have applauded, it does underline the likelihood that government-controlled banks would be used to further other policy objectives, rather than to focus purely on the bottom line.

Some have also referenced the RTC in the context of nationalization, since it was owned by the government and its gains and losses flowed through to the taxpayer. However, it must be emphasized that the RTC, which was formed to dispose of the assets of busted savings and loans, was a very different animal than a newly nationalized major bank would be. The RTC did not deal with ongoing operations, but solely focused on selling real estate and other assets taken over from the insolvent thrifts. This was a difficult task, but a very different one from trying to run a going concern.

Swedish Nationalizations

Many observers have pointed favorably to the nationalizations in Sweden in the early 1990's. Sweden's macroeconomic policies in the late 1980's had strongly encouraged bank lending, which consequently exploded. When the brakes were subsequently slammed on the economy, as a result of currency pressures, many of these bank loans went sour, endangering virtually the entire banking system.

In 1992, the Swedish government, with the full support of the Opposition, announced a combination of guarantees of bank debts and deposits and a tough capital regime for the banks. All banks were required to mark down their assets to realistic values and to raise additional capital if the mark-downs brought their capital levels below the existing minimum standards. Any bank that could not raise such capital privately was taken over in a manner that completely wiped out the value for shareholders. The threat of these tough measures caused several major banks to find a way to raise private capital rather than succumb to nationalization. Sweden only ended up taking over two out of the handful of large banks in that country, including one that was already partially government-owned. Both nationalized banks and some of the private sector banks used good bank/bad bank structures as a way to manage their troubled assets with the least disturbance to the ongoing banking activities.

Sweden's experience is generally considered a success because: (1) the cost was kept to an acceptable level, (2) the private sector nature of the banking system was left partially intact from the beginning and restored almost completely within a few years, and (3) the financial system continued functioning without major hiccups after the plan was implemented. While the cost was considered acceptable, it was not cheap. The capital infusions into the nationalized banks cost the equivalent of 4% of Sweden's GDP, although about half of this was recovered. (Some press reports have indicated that it was all recovered, but this appears to be based on miscalculations and an excessively low discount rate.) If nationalizations cost 4% of U.S. GDP, the cost would be roughly \$550 billion.

UK Nationalizations

The U.K. responded to the current crisis with capital injections, as the U.S. subsequently did, but with a crucial difference. The U.K. government bought common shares, which gave it majority or near-majority ownership of several of the leading British banks. These are voting shares and the government has also chosen to name members to the Boards of Directors. In line with this more active policy, the government has not been shy about pushing for greater lending, lower compensation, and other changes. It is too early to determine whether this approach to the crisis was optimal.

How could nationalization be implemented most effectively?

Implementing any nationalization well would be critical, since there are many complex decisions that would have important ramifications for the taxpayer and the economy. The most crucial issues are:

Designing an intelligent, clear set of criteria for nationalization. It is critical that banks and all of their counterparties understand when a bank will be at risk of nationalization and when it is safe to assume it will remain in the private sector. One of the biggest concerns of nationalization is that it will be contagious – every time one bank is nationalized there is the risk of triggering panic among the counterparties of the weakest remaining banks. It is also critical that the criteria push only the insolvent or extremely weak banks into government hands, given the many disadvantages of nationalization.

The Administration's intention to create rigorous, uniform stress tests using a quite pessimistic economic scenario has real promise. However, it would be better for the stress testing criteria to be public, despite current rumors that the tests themselves will remain confidential.

Synchronizing the first nationalizations. As noted, the first nationalization will in many ways be the most dangerous, since it could set off a tidal wave of panic across the sector. If there are several strong candidates for nationalization, it might be better for them all to be taken over on the same day, so that the government can send a clear signal that the remaining large banks are safe unless their conditions deteriorate markedly.

Setting out clear objectives. As noted above, there is much that is valuable even at the weakest large banks and it is important to preserve this value. Scattered throughout these firms are strong, profitable units; excellent customer and counterparty relationships; and good employees. Everyone involved needs to know as quickly as possible what will be kept, what will be sold or shut down, and how operations will differ going forward. Some of the most critical issues would be: (1) what should be done with investment banking operations, which are intertwined with commercial banking, but also distinct; (2) what will happen to non-core operations, such as insurance brokerages; and (3) what will be done with international operations. There may be a conflict between commercial logic, which may militate for continuation of these various activities, at least for the long time it may take before they can be sold for a good price, and public policy/political logic, which may argue for devoting effort only to a core commercial banking operation.

Another set of objectives that needs to be clarified quickly is what public policy objectives will now be integrated with the pure commercial objectives. For example, if the government intends to insist on increased lending in certain segments of the market, it needs to make this clear, as well as specifying when commercial objectives will override public policy ones. This may be one of the trickiest aspects of nationalization, since it involves balancing two sets of objectives, both potentially vague.

Deciding who is in charge. The government will need to clarify as soon as possible who will be running the show. This is not just a question of choosing a CEO, but also of being transparent about how the CEO will inter-relate with regulators and the Administration. Ideally this would mean picking a strong CEO who willingly operates under the objectives and constraints set by the government and who is given full support by key government figures. Letting someone in the government run the bank from behind the scenes risks fostering real confusion about who is in charge and having a distracted decisionmaker, since he or she would no doubt be senior enough to have other responsibilities. The CEO should also move quickly to confirm or replace top members of the existing management team. It will almost certainly be necessary to fire the existing CEO, unless they are so new as to seem blameless for the original mistakes. Beyond that, it would be best to make individual decisions based on the particular circumstances.

Avoiding political pressures. It is legitimate for a government-owned bank to be responsive to public policy considerations that purely private banks do not consider. However, these policy considerations should be made as clear as possible and integrated into the overall business plan, rather than being pursued in a reactive way that is open to political pressure and the appearance of it. It will be quite harmful if the impression arises that lobbying key people in Washington is the right way to win business or concessions from the bank.

Setting criteria for an exit strategy. Owning one of the largest banks in the U.S. is not likely to be a short-term undertaking. The size of these organizations means that there are few potential buyers of the total bank, or even some of the larger pieces. Further, the most logical buyers are generally struggling themselves at the moment or are foreign entities to whom the U.S. may be loath to sell. An eventual IPO is one viable option, but this is likely to be some years off. The best that can be done at the beginning is probably to lay out a strategy for recovery, including sale or dismantling of unwanted parts, and specifying the criteria by which an exit strategy will be developed as conditions improve. It almost certainly would be helpful to existing operations to underline that the government recognizes it will own the bank for some considerable time and therefore is intent on enhancing its value.

What should we do now?

Full nationalization may prove necessary as a last resort for one or two of the larger banks, but should only be undertaken when, and if, it is clearly necessary. More widespread nationalization is unlikely to be needed unless the economy performs substantially worse than most economists expect. Although we all crave certainty, it would be better to wait until we knew that this pessimistic case was likely before nationalizing more widely, given the serious social and financial costs of that extreme step.

Beyond the very small number of full nationalizations that may prove necessary, it may well make sense for the government to take substantial stakes now in additional large banks in a form that some may view as a partial nationalization. The Administration's plan to perform a rigorous, uniform "stress test" on the nation's largest banks is a good one. Those banks which the tests show need additional capital would be required to raise it privately in the short term. Failing that, the federal government would buy preferred shares that would convert over time into common shares, unless paid down before then by new private capital or future profits. For the weakest banks, this could give the government a majority voting stake upon conversion of the preferred shares into common shares.

However, if it becomes clear through the stress test that a bank is already insolvent or is at high risk of becoming insolvent, then it would be better to go directly to the step of full nationalization. Mid-sized and smaller banks should generally be treated in a similar manner. The main difference is that the traditional approach of forcing weak banks to sell out to stronger ones is a viable option for smaller banks, which is no longer true for the largest banks.

The right implementation will be critical to success. The author's suggestions are given in the implementation section above, but they can be no more than general principles – the actual decisions will need to reflect the particular circumstances of each nationalization and the economic and financial conditions of the time.