

# **Sjaastad on Deposit Insurance: A Comment**

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Larry Sjaastad has done what is hard to do. He has written a provocative paper on a subject that has been thoroughly researched and much discussed. The paper begins with a bang. Fractional reserve banking, he tells us, (1) "has changed little over the centuries," (2) "is inherently unstable," and (3) "totally irrational". To preserve fractional reserve banking, despite these flaws, governments have developed deposit insurance and the lender of last resort function. He thinks a better solution would eliminate fractional reserve banking by requiring 100% reserves. This change, he claims, would eliminate the inherent instability.

I am not sure why he thinks the system has changed little or is irrational. Proposals for 100% reserves systems have a long history. One reason that they have not been adopted is that bankers and depositors have incentives to share the private benefits of producing more loans and deposits from a given amount of reserves. Society can, of course, increase reserves at zero cost provided the country is on a fiduciary standard. This could be done by having the Central Bank issue reserves either as a pure transfer or by buying bonds from banks until all deposits have 100% reserve. For countries with modern financial systems and relatively low legal reserve requirement ratios, the latter method of changing to 100% reserves would require a rather substantial change in the ownership of debt. The case for debt neutrality is not strong enough to lend much confidence that a change of this kind would not have lasting real effects that should be explored.

Before turning to three issues that are often neglected in discussions of deposit insurance, I want to reinforce some of the paper's comments about supervision and moral hazard but give a different interpretation. The paper argues, correctly in my

judgment, that eliminating deposit insurance is unlikely to be credible. Such a policy would be seen as time-inconsistent for either of two reasons. When losses occur, pressure from domestic depositors encourages the government to spread the losses over the taxpayers instead of concentrating losses on the depositors. Many countries have flinched when they faced the problem of making domestic depositors share the losses at failed banks. In Uruguay and Chile in the early 1980s, foreign lenders pressured the local government to underwrite the banks losses, and the government did. Taxpayers may object to paying the bill, as in Japan recently, but there are few protests when the government announces that depositors will be paid in full.

Sjaastad concludes that "even the more ardent free market economist might find regulation to be inevitable." This is correct, but partial and misleading. Friedman (1960), following Simons (1948), proposed 100% reserves. A more complete statement would note that regulation, supervision and examination are neither necessary nor sufficient to prevent banking panics and losses. One reason is that supervision and regulation, typically enforced by audits and examinations, has most often failed to find problems in a timely fashion. Benston (1973). No less important, when problems are identified, supervisors and regulators have been pressured by politicians to engage in forbearance. This is a main reason that closures and failures have been much less common than taxpayer bailouts in many countries.

Recognizing the pressures for forbearance, several countries -- Chile, New Zealand, and the United States are examples -- have sought to reform supervision and regulation by moving toward market based regulation. Some countries have followed the proposals made by Benston and Kaufman (1988) to internalize the cost of bank failures using capital or loan markets to price the risk. We do not have enough experience with such arrangements to know whether the new arrangements will work as intended.

A main virtue of these plans is their recognition that widespread use of deposit banking and organized lending markets has social benefits. However, small depositors have little incentive to monitor their banks and lack the ability to do so. By writing rules that require the bank to close before all the capital has been lost, market

based regulation tries to maintain the benefits that comes from wide use of banking services while avoiding some of the social costs. Chile has gone further by supplementing the rules that seek to close the bank before it fails with rules that require future repayment of any taxpayer funds that may be used to restore solvency.

The Chilean rules recognize some of the problems in these arrangements. Losses may accumulate too quickly or governments may engage in forbearance, in effect waving the rules.

Sjaastad, following many others, proposes 100% reserves, or a narrow bank, as one solution. Although he does not give many details, the usual proposal separates deposit-taking from lending. All deposit-taking and payments are made by banks that hold only default-free assets such as short-term Treasury bills. Depositors pay a fee equal to the cost of providing payment services net of the earnings on Treasury bills. All lending is done by capital market institutions that finance their activities by selling bonds and equities. Banks and lenders may belong to the same group or holding company, but the services are provided separately and independently.

Three problems can cause banking or financial distress even under the assumed conditions. First, holding 100% reserves eliminates default risk when holders convert domestic deposits into domestic currency but, with a fixed exchange rate, it does not eliminate the risk of a run on foreign exchange reserves if holders of domestic money (or assets) shift to foreign money (or assets). Second, a 100% reserve against deposits does not prevent gross claims from exceeding deposits or reserves. A bank or its customer may sell one foreign currency and buy another. The net deposit or reserve position may be unaffected, but a default by one party can lead to default elsewhere. This is the so-called Herstatt problem. Third, small countries may have to choose between insufficient diversification, if the financial system specializes in domestic lending, and foreign exchange risk, if the financial system seeks to diversify its portfolio by investing abroad. Let me consider some of these problems more fully.

The first of the three problems is the easiest to discuss, in part because it is

familiar from recent Mexican experience. In a fixed exchange rate regime, domestic residents or foreigners, concerned about domestic conditions such as inflation or political instability, shift into foreign assets. The larger the initial reduction in foreign exchange reserves, the larger is a subsequent reduction likely to be unless the authorities act promptly and effectively. Other factors such as the frequency of past devaluations, the size of current budget or current account deficits, the populist rhetoric of a newly elected government, or weakness in the financial system contribute to the problem.

The second problem requires a lender of last resort even if there is 100% reserve behind deposits. The reason is that, in current financial practice, there is a large volume of overdrafts; an institution's gross purchases or sales, hence its exposure, may be large relative to its cash or net worth. Since most transactions are not settled bilaterally but clear at the end of the day, or in the foreign exchange market at the end of the second day, there is settlement risk. If a large institution failed, settlements would be disrupted, and other institutions might default.

The failure to pay at settlement is no different in principle from the failure that would occur if I pay with a check drawn against insufficient funds. I have the asset that I purchased. The seller has a claim against that asset. If the seller defaults on payments during the interval in which I have not discharged my debt, other defaults may occur. This hypothetical and improbable sequence in the case of my bad check is more likely to cause systemic failure in a system with many users of overdrafts that clear only once a day.

This problem presently arises most acutely because collateral requirements do not fully remove default risk on foreign exchange transactions, and central banks have been reluctant to underwrite the risk by offering to serve as lenders of last resort. In contrast, central banks have reduced or eliminated systemic risk on many domestic transactions. The Federal Reserve accepts the risk on Fed Wire and holds a reserve against a default on the CHIPS network. The Bank of England requires a securities reserve as collateral for users of the CHAPS network. I believe Germany and France are moving to central bank guarantees for domestic wire transfers. Developing

countries have less technology but, I believe, they also have fewer explicit guarantees. I will return to this issue below.

The third problem can arise if there is insufficient diversification domestically. If a dominant domestic industry in a small country experiences a large negative shock that causes default on loans, many lenders can fail. This problem can be reduced by allowing branches of foreign lenders to compete in the domestic market and allowing domestic lenders to hold foreign assets or branch abroad.

### **Options and Choices**

A welfare maximizing policy would reduce risk to the minimum inherent in nature and market arrangements. Financial firms would be allowed to fail, but systemic failures of the payments and asset transfer systems would be reduced by the lender of last resort function. The purpose of policy is to protect the system (or systems), not the financial institutions.

To perform this function without subsidizing risk, the lender of last resort should announce a penalty rate system -- the modern analogue of Bagehot's (1873) proposal. The central bank announces the range of collateral against which it lends. Each class of collateral would be accepted at a penalty rate -- a discount rate in excess of prevailing market rates. Borrowing would be a right. Financial institutions, whether banks or non-bank financial firms, could borrow as long as they could offer acceptable collateral. Since the central bank charges a penalty rate, the central bank would only discount if, or when, there was a market panic.

This proposal seeks to use market pricing of risk to avoid either subsidizing or penalizing risk taking. Electronic transfers would be subject to the same requirements as any other transfer; the central bank would use open market operations to reduce risk of systemic failure in periods of distress and would offer discount facilities, at a penalty rate applicable to that security, to anyone discounting acceptable securities.

Chile and New Zealand have found it useful to supplement market pricing of risk with rules requiring public disclosure of prospective losses. Examiner's ratings are published in the press. And in Chile the Superintendent of Banks is prohibited

from offering forbearance.

To encourage market pricing of risk, countries should, as in Argentina, allow financial firms to offer deposits in domestic and foreign currencies and permit foreign currencies to be used in payment. The pricing of foreign and domestic deposits would provide useful information about perceived risks.

No system of regulation, supervision, or market pricing of risks can, by itself, reduce risk to a minimum. My reading of history suggests that macro-economic stability is a necessary condition for financial stability. The last two decades remind us that financial regulation has been unable to compensate for the effects of large changes in real exchange rates or a cycle of inflation followed by disinflation or deflation.

### **Some Final Comments**

To return to the paper at hand, let me agree that we should seek to get rid of deposit insurance. This requires institutional change that both gets rid of time inconsistency and recognizes that small depositors cannot be expected to monitor their banks.

For the United States, reform is relatively easy to design. If restrictions were removed on the number or size of checks that can be written on money market funds that hold only Treasury bills, we would have a payments system with 100% reserves and no separate deposit insurance. This system could compete with regulated banks or other payments systems including conventional banks that now rely on FDICIA, a weak version of the Benston-Kaufman proposal. The public could choose the preferred system by placing its deposits in money funds with 100% reserves in Treasury bills or banks under FDICIA without deposit insurance. With changes to strengthen the rules against taxpayer financed bailouts, as Chile has done, and to permit payments in foreign deposits, as in Argentina, the system would seem a useful model for many countries.

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