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Discussion Paper No. 626

2/2009

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John M. Olin Center's Program on Corporate Governance
Abstract

Treasury Secretary Geithner announced a plan, which the Treasury is willing to finance with up to $1 trillion of public funds, to partner with private capital to buy banks’ “troubled assets.” The Treasury has not yet settled on the plan’s design, and its announcement has encountered substantial skepticism as to whether an effective plan for a public-private partnership in buying troubled assets can be worked out. This paper argues that, yes, it can. The paper also analyzes how the plan should be designed to contribute most to restarting the market for troubled assets at the least cost to taxpayers.

The government’s plan should focus on establishing a significant number of competing funds that will be privately managed and dedicated to buying troubled assets – not on creating one, large public-private aggregator bank. Establishing competing funds, I show, is necessary both to securing a well-functioning market for troubled assets and to keeping costs to taxpayers at a minimum.

Each new fund will be partly financed with private capital, with the rest coming (say, in the form of non-recourse debt financing) from the government’s Investment Fund planned by the Treasury. One important element of the proposed design is a competitive process in which private managers seeking to establish a fund participating in the program will submit bids as to what fraction of the fund’s capital will be funded privately. The government will set the fraction of each participating fund’s capital that must be financed with private money at the highest level that, given the received bids, will still enable establishing new funds with aggregate capital equal to the program’s target level. Overall, I show that the proposed design will leverage private capital to the fullest extent possible and will provide the most effective and least costly mechanism for restarting the market for troubled assets.

JEL classification: E5, G1, G2, H3, H5, H6, K2, N2
Key words: Troubled assets, Bailout, Financial Crisis, Banks, Financial Stability.
HOW TO MAKE TARP II WORK

Lucian A. Bebchuk*

I. INTRODUCTION

On February 10, 2009, Treasury Secretary Geithner delivered a long-awaited speech outlining the new administration’s approach to cleaning up and strengthening the country’s banks.¹ A key element of this approach is a renewed focus on enabling financial firms (and banks in particular) to sell the “troubled assets” clogging their balance sheets. The previous administration also initially focused on these troubled assets, proposing to spend $700 billion of public funds on purchasing them. It abandoned this plan, however, after encountering fierce objections that it would be difficult for the Treasury to value troubled assets and to avoid overpaying for them. Now the Treasury is back to purchasing troubled assets, but this time around it has announced its intention to partner with the private sector in this effort.

The Treasury is planning to establish, together with the Fed, the FDIC, and the private sector, a “public-private Investment Fund.” The plan is to establish a program that “will provide government capital and government financing to help leverage private capital” to “help start a market” for bank troubled assets. The project is ambitious in scope. The Treasury indicated that the program would ultimately provide up to $1 trillion in financing capacity, and would start on a scale of $500 billion.

While the Treasury announced its preliminary approach at a very general level, it indicated that it is still “exploring a range of different structures for this program, and will seek

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*William J. Friedman and Alicia Townsend Friedman Professor of Law, Economics, and Finance, Harvard Law School; Research Associate, National Bureau of Economic Research. For helpful comments and discussions, I would like to thank Gabriella Blum, Einer Elhauge, Tamar Frankel, Jesse Fried, Assaf Hamdani, Reinier Kraakman, Holger Spamann, and Eric Talley, and Andrew Tuch. For financial support, I am grateful to the Harvard Law School John M. Olin Center for Law, Economics, and Business. This preliminary draft is being circulated to facilitate discussion; I expect to issue a revision later this month. ¹See the text of Geithner’s speech available at http://blogs.wsj.com/economics/2009/02/10/geithners-opening-statement-to-senate-banking-committee.
input from market participants and the public” as it designs the program. The fact that no concrete design has been put forward has led to strong negative reactions. The preceding administration was forced to abandon its plan to purchase troubled assets after it became clear that it was not possible to design it to address effectively concerns about arbitrary valuation and potential overpayments. Perhaps partly due to this experience, the Treasury’s announcement of a plan without a concrete and detailed design met with skeptical reactions and doubts as to whether it is possible to design a plan that would partner public and private funding effectively to restart the market for troubled assets at an acceptable cost to taxpayers.

With the stock market reacting negatively to the Treasury’s announcement, one columnist observed that “[t]he market was right to worry because … nobody has yet devised a way to make such a scheme work.” Another report suggested that the market was “glum” because the announcement was “short on details – and no more so than on the critical question of how the government will address the problem of dealing with the toxic assets that have effectively rendered large portions of the nation’s financial system insolvent.” The editorials of both the New York Times and the Wall Street Journal stressed that the Treasury’s outline left key questions unanswered. Paul Krugman stated “So what is the plan? I really don’t know.”

This paper shows that, while the Treasury has not put forward a detailed plan, it is possible to design an effective plan for a public-private partnership to buy troubled assets. The

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2 The S&P 500 fell 3.4 percent and the financial sub-index fell 6.5 percent during the half hour that Geithner was making his speech, and some observers attributed this reaction at least partly to the lack of details in the announcement. See, e.g., Dash and Healy, Stocks Slide as New Bailout Disappoints, New York Times, February 11, 2009; Authors, “Geithner’s ‘Cunning Plan’,” FT.com, February 11, 2009.
paper analyzes how the plan should be designed to contribute most to restarting the market for troubled assets while imposing the least cost on taxpayers.

The analysis is organized as follows. Section II argues that the government’s program should focus on establishing many competing funds that are privately managed and partly funded with private capital – not on creating one, large “aggregator bank” funded with public and private capital and engaging in purchasing troubled assets. Section III analyzes how the government can best induce the creation of such competing private funds. In particular, I show how a market mechanism can be used to establish the funds in a way that would lead to maximum participation of private capital and involve the least cost to taxpayers. Finally, Section IV concludes that the proposed design can ensure that the market for troubled assets will function well and that the costs to the government from restarting this market will be minimized.

II. THE VALUE OF GETTING COMPETING NEW PRIVATE FUNDS

A. The Freezing of the Market for Troubled Assets

The premise of the Treasury’s plan is that the banks’ current problems are at least partly due to the freezing up of the market for many kinds of troubled assets. Banks can currently sell these “troubled assets” only at a very deep discount to face value, if at all. The banks have been largely avoiding selling assets at the low prices they have been able to get, and the market for troubled assets has seized up, making it difficult to attach a “market value” to many types of such assets. Because of the substantial presence of these illiquid troubled assets on banks’ balance sheets, the Treasury believes, the substantial uncertainty about the value of these assets makes it difficult for banks to raise additional capital and weakens their ability to carry out well their important role in financing the real economy.

There is general agreement that the fundamental economic value of most troubled assets – the discounted present value of their hold-to-maturity payoffs – has declined below face value due to decreases in the value of houses and other asset classes in the economy. Thus, many

7 In one transaction that received significant attention, Merrill Lynch sold a portfolio of CDOs to hedge fund Lone Star for 22 cents on the dollar. See Thain Takes the Pain, the Economist, July 31, 2008.
troubled assets can be expected to be priced below face value in a well-functioning market. The premise underlying the Treasury’s plan, however, is that the market for many types of troubled assets is not well-functioning at present, and that banks may be unable to sell them at prices reflecting fundamental economic values. In particular, the concern is that money managers that would otherwise be willing to purchase financial assets at any price below fundamental value do not have sufficient liquidity to keep prices from falling below such levels. The Treasury is therefore seeking to “restart” the market for troubled assets by introducing sufficient additional capital on the buying side of this market.

It should be stated at the outset that making this market well-functioning would not necessarily bring the banking sector to normalcy. A well-functioning market will convert some of the troubled assets held by banks into cash and, perhaps more importantly, provide more reliable valuations for the troubled assets that banks will retain. While this might confirm the claims made by some banks about the value of their assets, it might lead to realization that some other banks are insolvent or inadequately capitalized, which would require infusions of additional capital. Thus, restarting the market for troubled assets might well be insufficient by itself to solve banks’ problems, but, at the minimum, it would clarify matters a great deal, removing the clouds that currently hamper the activities of some banks while identifying those requiring an infusion of capital. In any event, for the remainder of this paper, I shall take as given the administration’s stated objective of restarting the market for troubled assets, and I shall focus on how this objective can be best achieved.

B. The Case against an Aggregator Bank

To introduce additional capital into the market for troubled assets, the preceding administration initially planned to spend $700 billion of government funds on buying such assets. But it abandoned this plan quickly after encountering widespread objections – including by myself\(^8\) -- to the government’s directly purchasing such assets. The central problem is that the heterogeneity of troubled assets and the considerable uncertainty about their value would

have made it rather difficult for the government to value them and to eliminate risks of massive overpaying. That direct purchases of troubled assets by the government are highly problematic has become so widely accepted that this approach is no longer on the table.

The current administration seeks to get around the valuation problem by involving private parties, which are viewed as better positioned, or at least better incentivized, to make good valuation and purchasing decisions. Getting private parties involved in the effort to restart the market for troubled assets is an approach that I advocated in an article published last fall, and I view participation by private parties as critical to a successful restarting of this market.

One approach that has been and might still be under consideration, and that has been extensively discussed by commentators, is that of a public-private partnership in a large “aggregator” bank, referred to as “bad bank.” Under this approach, an aggregator bank will be funded with, say, $500 billion, of public and private money. The bank will then use these funds to purchase troubled assets. Because the bank will be run by private managers, so the argument goes, it can be expected to make better purchasing decisions, and to produce a lower risk of overpayment, than purchases by the government on its own.

While getting private capital involved is desirable, I believe that creating an aggregator bank is a bad way of going about it. The key problem is that an aggregator bank would add only one additional buyer, albeit a big one, to the market. Suppose that, due to the current lack of buyers, banks can sell troubled assets of a certain kind at a price, say 20 cents on the dollar, which is substantially below fundamental economic value. To the extent that the aggregator bank will be run in a profit-maximizing way, the bank would push for a price as close as possible to 20 cents on the dollar, and the introduction of the aggregator bank would not result in the prices that effective competition on the buyers’ side would be expected to produce. Alternatively, if the aggregator bank is structured so that it will not seek to drive as hard a bargain as possible but rather pay the “right price,” we will be back to the problems of arbitrary valuation outside a

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9 See Bebchuk, supra note 8.

market context – the very problems that rightly led to rejecting the previous administration’s plan for governmental purchases of troubled assets.

C. The Case for Competing Private Funds

The plan for a public-private partnership in restarting the market for troubled assets, I suggest, should be executed through partnering not in one big aggregator bank but rather in a significant number of privately managed funds, each financed with both public and private capital. For government’s plan to avoid the problems of arbitrary price-setting, it is not enough to introduce one additional buyer, even if the buyer is privately managed. Rather, it is necessary to introduce a significant number of competing privately managed buyers armed with sufficient additional capital.

Suppose that the government wishes to introduce an additional $500 billion of public and private capital into the buying side of the market for troubled assets. Suppose that, rather than establish an aggregator bank with $500 billion, the government will establish a significant number, say 25, “bad bank” funds, each with a capital of $20 billion coming from both public and private funding. And suppose that each of the funds will be run by a private manager that will capture a share of the profits generated by the fund (above the yield on treasury securities) and possibly also bear a (lower) share of any losses produced by the fund.

The existence of such a significant number of private buyers armed with substantial capital will produce a well-functioning market for troubled assets. This will be a market in which many potential sellers (banks) face a significant number of potential buyers (the funds). The profit share captured by the funds’ private managers will provide these managers with powerful incentive to avoid overpaying for troubled assets. At the same time, the profit motive of the selling banks, coupled with the presence of competition among the private funds, will make it difficult for funds to underpay for troubled assets. As a result, we can expect the market for troubled assets to function well, with prices set around the fundamental economic value of purchased troubled assets.
In the article I published last fall, I put forward a plan for implementing the previous administration’s objective — adding $700 billion of public capital on the buying side of the market for troubled assets — through establishing a significant number of privately managed funds. With the administration then feeling confident it could provide sufficient public funding for this purpose, the plan I proposed involved the establishment of privately managed funds that would be fully financed by the government. Under that plan, the government would have fully funded a large number of privately managed funds dedicated to purchasing troubled assets, with each manager being compensated with a share, say 5%, of the profits generated by the fund. While such funds would not have had private capital, their private, well incentivized managers would have been sufficient to produce a well-functioning market for troubled assets.

The above plan, however, would not be an implementation of the Treasury’s current objective, which is to restart the market for troubled assets in partnership with private capital. Adding the participation of private capital to the plan can be useful for two reasons. First, with the substantial claims on government funds placed by the deepening economic crisis, getting private capital to participate will increase the total capital introduced into the market for troubled assets. Second, requiring participation of private capital in each privately managed fund established under the program will provide a private market check on the selection of the funds’ private managers: The managers running funds will be ones that private investors are willing to trust with significant amounts of their capital or that can invest their own capital and are willing to put it on the line.

For the remainder of this paper, then, I will take as given the objective of establishing a significant number of privately managed funds dedicated to purchasing troubled assets and funded by both private and government capital. How to induce the participation of private capital in these funds, and to do so at least cost to taxpayers, will be the focus of the next section.

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11 See Bebchuk, supra note 8.
III. GETTING PRIVATE CAPITAL TO BUY TROUBLED ASSETS

Because private capital has not yet flown in large amounts into the market for troubled assets, the Treasury is contemplating arrangements that will make participation by private capital worthwhile. This can be done by having the participating public capital assume more downside risk or, alternatively, capture less of the upside. The important question is how to do so to the minimum extent necessary to induce the desired participation of private capital. As one media report put it, the question is “how it is the Treasury will entice investors to do something they have been avoiding since the start of the crisis.”\(^\text{12}\) In the words of another media report, “[t]he Treasury is having trouble working out how to juice the market without giving away too much taxpayer money.”\(^\text{13}\)

Suppose that the government wishes not only to have the new funds dedicated to purchasing troubled assets run by private managers but also have the funds attract private capital. This private capital can be contributed by the private manager to the extent that the manager has sufficient capital. Alternatively, the private manager can line up investments from other private parties. To do so, the private manager may conclude with these private parties contractual arrangements that will govern how they split among themselves the payoffs left for the private side under the terms of the government’s program. For the purposes of this section’s analysis, it will be useful to think about all the private parties involved as a group, and I will refer to them collectively as the private manager.

The key insight put forward in this section is that, to ensure that the government does not overspend, private managers should not only compete for troubled assets after they obtain capital from the government’s Investment Fund but also compete upfront for the right to participate in the program and receive funding from the Investment Fund. This market mechanism will ensure


\(^{13}\) Eavis, “For Geithner, Taxpayers and Shareholders both have their demands,” Wall Street Journal, February 11, 2009.
that the government will provide funding at a level and under terms that will be least costly to taxpayers while still inducing the establishment of private funds with the desired amount of aggregate capital.

Below I describe a simple scheme under which the government’s Investment Fund will provide capital to the new funds in the form of debt financing. Under this scheme, the Investment Fund will finance a specified fraction of the capital of each fund participating in the program with a non-recourse loan. The terms of this loan will be similar to those used by the Fed in the facilities it recently established for funding pools of consumer loans: the loan will be paid first from the payoffs of the private fund, will be paid only from those payoffs (being non-recourse), and will carry a low interest rate.

To see how the availability of such debt financing can induce the participation of private capital in the private funds participating in the program, imagine that the government sets a very high level of 95% for the fraction of the capital of participating funds that will be provided in such debt financing. With such large government participation, it will presumably be easy to attract private managers that will be willing (possibly together with private investors partnering with them) to contribute 5% of the fund’s capital as equity investment. Consider a $1 billion fund established with a $50 million equity investment contributed by the private manager and $950 million in debt financing from the government’s Investment Fund. In this case, while the private manager will be the first to bear any losses of the portfolio, the private manager’s potential loss from the fund’s $1 billion portfolio will be capped at $50 million. On the upside, however, the private manager will fully capture any profits that the government’s capital of $950 billion generates above the loan’s low interest.

For the government’s Investment Fund to provide debt financing for 95% of a participating fund’s capital is thus likely to be more than necessary to induce private capital to the fund. Doing so would thus impose on taxpayers an expected cost than is higher than necessary. Let us denote by X% the government’s participation rate – the fraction of participating funds’ capital that the government will fund with debt financing, with the remaining (100-X)% of each fund’s capital contributed as equity financing by the private manager (and its
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group). How should the government set X%? It should do so through a competitive bidding process.

Suppose that, while the government wishes to have ultimately $1 trillion in purchasing power in the hands of funds dedicated to purchasing troubled assets, it will begin with a “pilot” round in which private funds with an aggregate purchasing power of $100 billion are established. The government should invite bids from private managers seeking to participate in this round. Each bid should indicate (i) the maximum fraction of the fund’s capital that the private manager will be willing to commit to contribute as private equity capital (rather than use debt financing from the Investment Fund for this purpose), and (ii) the size of the fund the manager seeks to establish. A private manager will indicate an interest in setting up a $1 billion fund if the government provides non-recourse debt financing for at least 50% of the fund’s capital only if the private manager is to be able to get private capital of up to $500 million invested in the fund.14

Because it is desirable to have a significant number of different funds in the marketplace, any given private manager seeking to establish a fund will be limited to seeking at most, say, 10% of the aggregate capital that the funds established in the initial round will get ($10 billion in the considered example). The government can also set, at least in the initial pilot round, a minimum level of equity capital contribution, say 10% of capital, below which private managers may not submit bids.

Once the bids are made, the government will set the level of its participation under the program (that is, the percentage of funds’ capital that the government’s Investment Fund will provide in debt financing) at the lowest level that can be set and still allow for establishing funds that collectively will have the total capital that is the target for the program’s initial round ($100 billion in the considered example). Thus, for example, the government will set the equity contribution percentage at 40% and the government’s debt financing at 60% if, given the offers

14 Bidders will have to adequately demonstrate their ability to raise the private capital that they are committing to contribute if their fund is allowed into the program. Such demonstration can take the form of showing that the capital is already committed or providing a significant deposit that will be forfeited if the proposed fund is allowed into the program and the private manager fails to come up with the committed private capital.
received from private managers passing threshold qualification tests, (i) the 40% level will enable establishing private funds that collectively will have $100 billion, and (ii) a higher level, say 42%, will not enable producing such an outcome (because one or more private managers are willing to participate at the 40% level but not at the 42% level).\textsuperscript{15}

The above scheme assumes a particular priority structure for the government’s capital contribution and the private manager’s capital contribution – when the fund ends its life and payoffs are realized, the government will be paid first and the private capital will come after the government’s investment is paid in full. But it is possible to adapt the scheme to allow for some equity participation by the government or for some debt participation. Whatever combination is chosen, it will be important to have the key parameter determining the government’s expected costs, such as the level of participation by private capital (and, correspondingly, the level of participation by the government) determined through a competitive process intended to keep the government’s expected costs at a minimum.

One reason to refine the simple debt-based scheme described above is to eliminate the possibility of a scenario in which the private manager will be left without any skin in the game at some point in time in the life of a fund. For example, if the government provides 60% of the capital as debt financing, with the remaining 40% financed as equity contribution by the private manager (and its affiliated private investors), then, in the unfortunate event that the value of the portfolio declines by more than 40% and is expected to remain below that level, the private manager will no longer have skin in the game and thus an incentive to manage the assets well. For this reason, it might be desirable to use a structure in which the private manager always has some skin in the game. For example, rather than specify that the private manager’s capital contribution will be fully in the form of equity capital, 25% of this contribution can come as debt capital with terms and priority on par with those of the government’s debt financing. With this specification, the auction can still focus on what fraction of the fund’s total capital will

\textsuperscript{15}The debt-financing scheme described above is based on an assumption that the government will provide debt financing without getting any share of the upside (above the interest charge on its loans) and that the dimension on which the auction will focus will be the percentage of capital contributed as equity capital. An alternative scheme would specify the level of government participation, say at 75%, and have private managers compete on the share of upside the government’s Investment Fund will get in addition to the interest on its loan.
come from the private manager (and its group), but the manager will always retain some skin in the game.

Before closing, I would like to comment on some other issues of design. As noted earlier, the private managers will not only choose which assets to purchase but also manage the portfolio they acquire and make decisions as to when and how to sell parts of it. These are all issues for which the expertise of private managers, and their being appropriately incentivized, are important.

Another issue of design concerns the investment horizon of the funds’ managers. Given the nature of the market, it is important for the established funds to have capital that may not be withdrawn for a substantial period of time, such as three or even five years. If capital could be withdrawn earlier, the funds’ private managers might be reluctant to purchase troubled assets that they know will appreciate in value in three or five years out of fear that capital withdrawals will force early liquidation of positions at a loss. Accordingly, when providing capital to funds participating in the program, the government should commit its capital for the specified period, and should insist that the private capital contributed to the fund also may not be withdrawn during this period. Of course, private investors contributing capital as part of a private manager’s group may be allowed to sell their participation to other private investors, with such transfer not involving a withdrawal of capital (and thus a forced liquidation of positions).

Finally, the funds established under the program will be dedicated to purchasing troubled assets, with funds’ managers having discretion which assets to purchase within the universe of troubled assets. It might also be possible to divide this universe into subsets, and to have separate sub-program for each subset. Thus, for example, rather than trying to get $500 billion to go after troubled assets in general, the government might seek to get $200 billion to go after CDOs, $100 billion to go after troubled mortgage assets, and so forth. Whatever approach is chosen, it would be desirable to limit the funds to purchasing those assets for which

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16 This discussion might be expanded in the next revision of the paper to respond to issues raised by readers or by others writing on the subject of buying troubled assets.
17 Relatedly, there will be the issue of what to do with cash produced when troubled assets are sold by the private manager before the end of the fund’s life. If the cash comes in early enough in the life of the fund, the private manager will be allowed to reinvest it in troubled assets. What will not be possible is to distribute such cash to equity contributors to the fund before the government’s debt is paid in full.
uncertainty of valuation and illiquidity are significant issues. This can be done by, for example, limiting funds to purchasing assets for no more than, say, 90% of face value, or to purchasing assets for which no significant transactions have occurred in the recent past. To the extent that the government has the relevant information, the government could also put together (possibly long) lists of assets that funds established under the program may buy.

Whatever definitional approach is chosen, problems of under-inclusion may be addressed by enabling funds to get the Treasury’s approval for purchasing assets not within the initially established list or definition. Note that this would not get Treasury officials involved in the type of business decisions best left to private parties with powerful incentives – such as which assets to buy and how much to pay for them – but only in decisions concerning whether a given asset belongs to the category of illiquid troubled assets for which the Treasury is seeking to restart a market.

IV. CONCLUSION

The government’s aim of setting up a public-private partnership that would restart the market for troubled assets should be pursued not through establishing a large aggregator bank financed by public and private capital but rather through establishing a significant number of privately managed funds, each financed by both private and public capital, that will be dedicated to buying troubled assets. This paper has shown how such a program can be designed in a way that will use the public funds dedicated to this effort most effectively and will restart the market for troubled assets at least cost to taxpayers. The proposed design is based on private managers’ competing at two levels – first competing for participation in the program and receiving partial government funding for the funds, and subsequently competing over banks’ troubled assets. The proposed design can deliver the results the Treasury has announced it is seeking. I hope that the paper’s analysis will be useful to public officials as final decisions are made on how to deal with the important and thorny issue of banks’ troubled assets.