Joint Economic Committee

Senator Sam Brownback — *Ranking Republican Member*

Representative Kevin Brady — *Senior House Republican Member*

Valuing the TARP Warrants

June 24, 2009

Using three programs within the Treasury Asset Relief Program (TARP), the U.S. Treasury made cash investments on behalf of taxpayers in financial institutions in return for a combination of dividend-paying preferred stock and warrants to purchase common stock. The three programs within TARP are: the Capital Purchase Program (CPP), in which hundreds of billions of dollars of funding was provided to over 600 banks; the Systemically Significant Failing Institutions (SSFI) program, consisting of funding for AIG; and the Targeted Investment Program (TIP), consisting of funding for Citigroup and Bank of America.

On June 9, Treasury announced that 10 of the largest financial institutions participating in the CPP had met requirements for repayment of funds. Under the CPP investment agreements, institutions that repay preferred stock that Treasury obtained through capital injections have the right to repurchase, at "fair market value," warrants that Treasury also received. This report discusses how the warrants are valued in the CPP agreements and alternatives to Treasury's procedure of selling them back to the issuing institutions at some agreed upon fair market value.

What are the Warrants? The warrants are options Treasury received to purchase common stock in an institution at a pre-determined "exercise price," over a 10 year period. The exercise price was set at the average trading price of a share of an institution's common stock during a 20 day period prior to the selection of the institution by Treasury for the CPP. The shares that Treasury could purchase by exercising the warrants were set at 15% of the face value of Treasury's preferred stock investment. For example, if Treasury purchased $10 billion of preferred stock, the warrants would permit it to purchase $1.5 billion of common stock. The warrants were immediately exercisable, subject to a reduction feature.

Overall, in the TARP, Treasury received warrants allowing contingent purchases of millions of shares of stock in financial institutions, and the overall value of the warrants amounts to billions of dollars. The value received by Treasury upon sale or exercise of the options will determine what compensation (or loss) taxpayers receive on Treasury's risky TARP investments.

How do the Warrants Work? The warrants allow Treasury to participate in a potential increase in the stock price of a financial institution because the warrants generate a gain whenever the stock's price rises above the exercise price. If the share price on a stock for which a warrant allows a purchase rises above the warrant's exercise price, the warrant is said to be "in the money." In such a case, the warrant allows the holder to purchase common stock at the exercise price. The stock could then be sold at the prevailing higher market price, generating a gain. For example, if warrants are issued at an exercise price of $10 per share, and the share price on the stock rises to $12 per share, the government can purchase common stock at the specified exercise price of $10 and then resell it in the market for $12, generating a gain of $2.

If the share price is below the warrant's exercise price, the warrant is said to be "out of the money." For example, if the warrant's exercise price is $10 and the share price is $8, exercising the warrant in this case would mean that the holder would be purchasing stock at an exercise price $2 above the current market price, generating a loss. Most warrants held by Treasury as part of the CPP are currently out of the money, but that does not mean that they have no value. There is value in having the option to purchase common stock in an institution, because of the chance that the stock's price will rise above the exercise price in the future.

How Can the Warrants be Valued? Warrant values can be estimated using option pricing methods that are widely employed by financial market participants. The model-generated values depend on a number of inputs, including the current stock price, exercise price, "risk free" rate of return, expected future volatility of the stock price, dividend yield on common stock, and the number of warrants outstanding relative to the outstanding shares of stock. Other features specific to the TARP warrants would also have to be included in the analysis.

An alternative to using option pricing models to estimate the warrant values would be for Treasury to set up market auctions of the warrants, selling them off to whoever is the highest bidder. Yet another alternative to immediate valuation and liquidation by Treasury of the warrants would be to hold them to capture the upside potential that the underlying stock prices will rise above exercise prices, generating gains upon exercise.

How Would Some Financial Institutions Like to Value the Warrants? In an April letter to Treasury Secretary Geithner, a representative of the American Bankers Association (ABA) essentially argued for forgiveness of the warrants, writing that:

> *"Many banks participated in the CPP reluctantly and at the urging of their primary regulator. The public backlash and media portrayal of the recipients of federal funds has caused many participants to conclude that the burdens associated with the program far outweigh its benefits. These institutions believe it is in the best interests of their customers, shareholders, and communities to repay the funds. However, to do so the company must repay not only Treasury's investment in the bank plus accrued and unpaid dividends but also an additional profit for Treasury equal to 5% of the investment (for non-publicly traded companies) or the fair market value of the warrants (for publicly traded companies). For a very short term investment, this amounts to an onerous exit fee, not a proper return on investment…As long as the bank's primary regulator agrees that the bank will remain able to meet the needs of its community in a safe and sound manner, there is no reason for Treasury to impose such a punitive obstacle to exiting the CPP."*

The manner in which the TARP has been implemented leaves some things to be desired. Nonetheless, the argument that not all banks enjoyed signing up for the TARP and should be allowed to exit TARP without meeting the contractual obligation to pay for warrants, should the institutions choose, must be weighed in light of substantial risks that taxpayers took on in providing capital to banks. Taxpayers deserve compensation for taking the risks. One historical precedent for not forgiving the warrants comes from the 1979 Chrysler bailout, when the government made loans to Chrysler and received warrants for common stock. After Chrysler subsequently recovered and repaid the loans, it sought warrant forgiveness. The government ultimately rejected Chrysler's plea and auctioned the warrants off, realizing a return for taxpayers. Chrysler ended up purchasing the warrants through Solomon Brothers Inc.

How Will the Warrants be Valued According to the TARP Agreements? The terms of the Treasury warrants are spelled out in standardized contracts with TARP fund recipients, and the terms are largely the same in all of the CPP deals. The preferred share purchase agreements contain a mechanism for repurchase of warrants by TARP fund recipients upon their repayment of the CPP preferred share capital injections. According to the agreements, the banks can cause Treasury to sell the warrants back at "fair market value," defined as follows:

> *The fair market value of such security as determined by the Board of Directors [of the TARP fund recipient Company], acting in good faith in reliance on an opinion of a nationally recognized independent investment banking firm retained by the Company for this purpose and certified in a resolution to the [Treasury Department].*

Consequently, the initial determination of the value of the warrants is made by the financial institution that received TARP funding. If the institution and Treasury disagree on value, an appraisal process ensues, as spelled out in the contracts:

> *Two independent appraisers, one chosen by the Company and one by the [Treasury Department], shall mutually agree upon the Fair Market Value…If within 30 days after appointment of the two appraisers they are unable to agree upon the Fair Market Value, a third independent appraiser shall be chosen within 10 days thereafter by the mutual consent of such first two appraisers. The decision of the third appraiser so appointed and chosen shall be given within 30 days after the selection of such third appraiser. If three appraisers shall be appointed and the determination of one appraiser is disparate from the middle determination by more than twice the amount by which the other determination is disparate from the middle determination, then the determination of such appraiser shall be excluded, the remaining two determination shall be averaged and such average shall be binding and conclusive upon the Company and the Investor [Treasury]; otherwise, the average of all three determinations shall be binding upon the Company and the Investor. The costs of conducting any Appraisal Procedure shall be borne by the Company.*

So, the TARP recipient assigns a value to its warrants and, if acceptable to Treasury, that is the fair market value. If Treasury disagrees and arrives independently at a different value, a third appraiser is brought in. Three valuations would then be on the table: the Company's; the Treasury's; and the third appraiser's. Presumably, those three valuations would consist of one high valuation, a middle valuation, and low valuation (likely, the TARP recipient's valuation). If one valuation differs from the middle by more than twice the difference of the other valuation from the middle, the former is tossed and the value of the warrants is an average of the remaining two. If not, then all three valuations are averaged to arrive at the fair market value.

Is There Anything Wrong With This Procedure? Having performed their own rough estimates of TARP warrant values, some analysts have suggested that Treasury has potentially accepted lowball prices for warrants that have been paid off to date. Those prices, agreed upon by Treasury and the repaying financial institutions, have been arrived at through negotiations and outside estimates of the warrant values. It is likely that the Congressional Oversight Panel for TARP and the Office of the Special Inspector General for the TARP (SIGTARP) will be interested in providing oversight over the manner in which the warrants have been and will be valued. So far, Treasury has been relatively opaque on pricing and assumptions used to come up with the prices charged for the warrants.

Is There a Better Procedure? There is a better way to avoid negotiated sales of the warrants: open-market auctions of the warrants by Treasury, in which any private investor, including the issuing financial institution, is able to bid on and purchase the warrants. As several commentators have argued, such an approach would:

- **Provide transparency** of the valuation process;
- **Maximize taxpayer return** on the warrants;
- **Provide banks the ability to exit TARP, including government ownership of warrants,** by purchasing the warrants in the open market or preserving capital and letting other private investors buy the warrants.

Why Not Set Up Auctions? One reason is that a deal is a deal, and since Treasury fully specified the manner in which warrants will be valued and sold to TARP fund recipients, changing the valuation and sales procedure would amount to an abrogation of contracts. It would have been nice for Treasury to have specified ex ante that a warrant auction would be used when a financial institution wants to escape TARP, but that did not happen. Changing the rules of the game would simply inject further uncertainty into TARP terms and further erode private perceptions of government as an honest broker.

Interestingly, as noted in a January 27, 2009 legal analysis of TARP investments provided by the Congressional Oversight Panel for TARP:

> *"The CPP forms and the SSFI/TIP investments contain a very unusual proviso to the amendments provision…of the Securities Purchase Agreement which gives Treasury the unilateral right to amend any provision of the agreement 'to the extent required to comply with any changes after the Signing Date in applicable federal statutes'."*

It is not clear why the proviso was included; perhaps to be used should there arise deficiencies in things like reporting requirements on TARP recipients. The proviso does, however, identify that TARP recipients entered into agreements with an understanding that any provision could be changed to comply with changes in federal statutes. Presumably, if legislators were to decide that auctions are the best, most transparent, taxpayer-return-maximizing way for Treasury to dispose of TARP warrants, and legislation governing changes in warrant disposal was enacted, it could be said that auctions will occur and the deal is still a deal. Legislators would have to decide whether greater transparency and potential return for taxpayers outweighs making further changes to TARP conditions on the heels of uncertainty-inducing changes that have already taken place regarding repayment conditions, executive compensation, and the like.