the written testimony of
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before
The House Financial Services Subcommittee on Oversight and Investigations' hearing on "TARP Oversight: An Update on Warrant Repurchases and Benefits to Taxpayers"

on May 11, 2010, at 11:00 A.M. in 2128 House Rayburn Office Building

Introduction

I want to thank Subcommittee Chairman Dennis K. Moore (D-KS), ranking member the Honorable Judy Biggert (R-IL), and the members of the House Financial Services Subcommittee on Oversight and Investigations for calling this hearing on the U.S. Treasury's management of the taxpayers' Troubled Asset Relief Program (TARP) warrants. I am honored to be invited to appear before the subcommittee today. The TARP program gave the U.S. Treasury Secretary unprecedented authority to disburse up to $700 billion. The tireless efforts of this subcommittee, other committees in Congress, the Congressional Oversight Panel (COP), SIGTARP, the Government Accountability Office (GAO), the Congressional Budget Office (CBO), and concerned citizens have allowed taxpayers to have a chance to be made whole on their reluctant investments in the banking sector.

We meet today on almost the one year anniversary of the first warrant transaction, with Old National Bancorp. That transaction demonstrated that the U.S. Treasury without oversight will squander the taxpayers' profits from their very risky investments in the banking sector. The auctions of several banks' warrants make me hopeful that the taxpayers will get close to fair market value for their warrants in over 280 publically traded banks. Yet, by my estimates, the U.S. Treasury and the administration today plan to squander a fair market value of warrants and preferred stock of approximately $3.0 billion by allowing existing Capital Purchase Program recipients to cancel their warrants and convert their preferred stock into the proposed Small Business Lending Fund. Thus, vigilance and oversight is essential to ensure that taxpayers hold onto the returns they have earned from the TARP warrants because the U.S. Treasury left to its own devices has often been a poor steward of the $700 billion of taxpayer funds.

My Background

While I teach and conduct research in finance at the University of Louisiana at Lafayette, the views that are expressed today are my own and not necessarily the views of my university or the state of Louisiana. I received my Doctor of Philosophy in economics at Oxford University in England in 2007. In addition to my other academic research in finance and economics, I have written fourteen academic papers on the TARP warrants, government plans to buy so-called "toxic assets" from banks, the effectiveness of various types of capital in encouraging bailed-out banks to make good loans, and the too-big-to-fail problem.[ii] Half of those papers on the bank bailouts have to date been accepted or appeared in peer-reviewed, academic journals.

Early Attempts to Cancel the TARP Warrants

The U.S. Treasury under Henry Paulson was forced by Congressional negotiators such as Senator Jack Reed (D-RI) to obtain warrants that allow taxpayers to profit from the recovery of the banking sector.[iii] Yet, when the Capital Purchase Program was formulated, taxpayers were given far fewer warrants with worse terms than similar investments by Warren Buffett's company Berkshire Hathaway in Goldman Sachs.[iv] Despite these generous terms relative to private sector investments as documented by the Congressional Oversight Panel and the Congressional Budget Office, the banks wanted more subsidies.[v]

On March 31, 2009, the first banks repaid their Capital Purchase Program (CPP) preferred stock. The TARP warrants were early targets of the banking lobbyists and bank CEOs. On April 16, 2009, the American Banker's Association (ABA) wrote U.S. Treasury Secretary Timothy Geithner to convince the U.S. Treasury to cancel the TARP warrants. This letter was reported in the *Wall Street Journal* soon after, "Today, most of the warrants are essentially worthless, because their exercise price is higher than where most banks' stocks are trading."[vi] That statement could not have been more wrong, and any student of finance would have spotted that error. In analysis that I have prepared for this committee today, on March 30, 2009, the taxpayers' warrants had a fair market value of $8.2 billion.

The article was correct in that most warrants at the time could not be immediately exercised at a profit. Warrants are call options that allow the owner to buy newly issued stock at a preset price. At the end of March 2009, options were very valuable and option markets were predicting wild swings in stock prices. Options, because they have limited downside, benefit from the fact that there can be great swings in the stock price. The TARP warrants were issued with ten years to expiration. Thus, with nine years to go in March 2009, the bank stocks and thus the TARP warrants had a lot of upside potential. (A longer time to expiration makes options more valuable.) Moreover, with over nine years to expiration, the taxpayers' warrants had a longer life than any traded options or warrants. Today, with the recovery of bank shares, many of the taxpayers' remaining warrants can be exercised for a profit. To date, the U.S. Treasury has collected $6.1 billion from repurchases and auctions. The warrants still held by taxpayers represent securities issued by 236 banks and insurance companies which participated in the Asset Guarantee Program (AGP), Targeted Investment Program (TIP), and Capital Purchase Program (CPP). I estimate that the fair market value of warrants which have not yet been sold prior to this hearing were worth $4.1 billion on March 31, 2010.

Oversight Works

Much to my surprise, my research into "The Goldman Sachs Warrants" and the first warrant repurchase garnered considerable interest.[vii] I argued that only through third party sales and auctions could taxpayers hope to get the best prices. The Congressional Oversight Panel (COP) adopted a very similar methodology to my papers. The COP, using the option pricing models of Black and Scholes and Merton with dilution adjustments of Galai and Schneller, on July 10, 2009, found that the early repurchases were for 66 percent of fair market value.[viii] Soon after, Congresswoman Mary Jo Kilroy (D-OH), a member of this subcommittee, introduced the PROFIT act to force the U.S.

Treasury to auction the TARP warrants of the biggest banks.[ix] On July 15, 2009, Dr. Robert Jarrow, the author of a textbook and numerous academic articles on derivatives and option pricing was employed for one month by the U.S. Treasury to oversee the warrant valuation process.[x] On July 22, 2009, early in the day of the first hearing about the U.S. Treasury's disposition of bank warrants, my interview with the BBC World Service warned that Office of Financial Stability officials would the subject of Congressional scrutiny if they offered investment banks, which routinely awarded thousands of seven figure jobs, sweetheart deals on the taxpayers' warrants.[xi] That day Goldman Sachs announced its $1.1 billion repurchase of the taxpayer's warrants. That price was the closest price to my estimated fair market value of any bank up to that time. Several other very good negotiations for taxpayers followed.[xii]

The first auctions were held in December 2009. Before December 2009, there were no traded options or warrants with expiration dates later than 2014. With the auctions of the warrants issued by Capital One, JP Morgan Chase, and TCF Financial, we got the first glimpse of what long-dated warrants were worth in the open market. In all three auctions, taxpayers got higher prices than they were offered in negotiations.[xiii]

My paper "Anchoring Bias in the TARP Warrant Negotiations" shows that, based on the estimates of third party consultants paid by the U.S. Treasury, the U.S. Treasury in 2009 got better prices over time and made large banks pay higher prices as a percent of fair market value.[xiv] However, that paper also shows that the U.S. Treasury was more likely to make bad deals when banks started out with lowball opening offers. Most of these results were confirmed when I scaled the prices by Congressional Oversight Panel estimates. This study argues that the U.S. Treasury should be careful to not be swayed in its own judgment of fair market value of the warrants by lowball offers of banks. I applaud the U.S. Treasury for publishing the *Warrant Disposition Report* in January.[xv] I hope that they will publish such a report on a semi-annual basis going forward. Further, I hope that they will publish more details about the auctions that have been held.

The pace of completed negotiated transactions has slowed down since the first auctions. While I believe the U.S. Treasury negotiated many good deals for taxpayers from smaller banks in December 2009,[xvi] the repurchase by City National Bank of Beverly Hills, completed in April 2010, shows that the U.S. Treasury still may be willing to sell taxpayers' investments on the cheap. I believe that the taxpayers would have gotten a better price if the PROFIT Act forced the U.S. Treasury to auction the warrants issued by the Beverly Hills based bank.

The Small Business Lending Fund's Threat to the TARP Warrants

The proposed $30 billion Small Business Lending Fund would allow over 580 of the smaller Capital Purchase Program recipient banks to wipe out the warrants worth $457 million, according to my estimates.[xvii] $262 million represents the estimated fair market value of warrants that could be cancelled by publicly traded banks, and $195 million represents the estimated value of the warrants that could be wiped out by private banks under the initiative. The private banks' warrants function similar to upfront points on a loan, which increase the balance of their preferred stock or subordinated debt loan from taxpayers. The private bank warrants are similar to paying points on a mortgage. To cancel the private bank TARP warrants would be equivalent to a bank's forgiving principal on a mortgage loan. I valued these private bank warrants with standard bond pricing techniques.[xviii] These points on the private bank loans seem justified since similar subordinated debt or preferred stock would come with far higher dividends or interest payments if such capital were available at all.

My paper "TARP's Deadbeat Banks" lists eighty-two banks at last count in the Capital Purchase Program which missed dividend and interest payments owed to taxpayers.[xix] The taxpayers' preferred stock and subordinated debt investments are very risky and the proposed one percent dividend is insufficient compensation for that risk. I estimate that the fair market value of the taxpayers' preferred stock in these roughly 580 publicly traded and privately held banks would fall by $2.5 billion if they left the Capital Purchase Program for the Small Business Lending Fund. If we add in the subsidies to new banks entering the fund, which are not in the CPP, the subsidy to small banks and their shareholders would increase by $5.5 billion. That is, for a $30 billion fund, taxpayers should expect to lose about $8.4 billion or 28 percent of their investment on the day a typical investment is made by the fund.

The TARP was an emergency legislation enacted to stop a banking panic. Before Mr. Paulson proposed that plan, no politician would have thought expanded government ownership of banks is a good thing. Today we have perpetual investments in over six hundred banks. This small business lending fund would increase the number of banks under state ownership. Increasing the number of banks with taxpayer investments distorts capital markets and makes it harder for banking supervisors to restructure undercapitalized institutions as with UCBH Holdings and Pacific Coast National Bancorp, which were restructured in FDIC receivership in November 2009.[xx] I think policy makers can design better ways to stimulate growth through tax cuts, direct stimulus, or deficit reduction. Giving handouts to banks, albeit smaller ones, does not make any sense.

Large Warrant and Common Stock Sales This Year

In the coming weeks and months, I expect the U.S. Treasury to raise $2.7 billion from the sale of the warrants of just five institutions: Wells Fargo, The Hartford insurance company, the Lincoln National insurance company, Discover, and Citigroup.

A successful sale of the taxpayers' $31 billion of common stock of Citigroup is one the biggest challenges that the U.S. Treasury faces today. I argue in my paper "Selling Citigroup" that their current strategy of slow, at-the-market sales is inferior to a large underwritten secondary offering of this stake.[xxi] Taxpayers' holdings are poorly diversified, and thus they are not fully rewarded for the risks that they take by their concentrated holdings in Citigroup compared to well-diversified private investors. Moreover, the U.S. Treasury's tight deadline of mid-December 2010, and late start to the sale makes it difficult to sell the 7.7 billion shares, or 27 percent stake in the large bank.[xxii]

I do not believe that breaking this public promise to Citibank's managers and investors to sell its stake before the end of the year is a good idea. Failure to complete this sale would hurt the U.S. Treasury's credibility before capital markets, and may cause Citibank's share price to fall as the prospects of the end of government ownership dim. For this reason, I am disappointed that the U.S. Treasury has been slow to lock in profits.

Conclusion

The increased frequency of auctions versus negotiations has ensured that taxpayers are justly rewarded for their risky investments in the banking sector. Contrary to the banking lobby's early propaganda, the Troubled Asset Relief Program (TARP) warrants have proven to be very valuable raising $6.1 billion so far. I expect the U.S. Treasury to raise a further $4.1 billion from 236 banks with warrants outstanding based on the prices at the end of the first quarter. The administration plans to give away $3.0 billion subsidy to about 580 existing TARP recipients. The U.S. Treasury wants them to participate in a so-called Small Business Lending Fund, which would cancel the taxpayers' warrants and convert the 5 percent preferred stock into 1 percent preferred stock. The Small Business Lending Fund is TARP 2.0, but TARP 2.0 has none of the upside for taxpayers that TARP 1.0 had. We should be contracting state ownership of the banking sector not expanding it. Finally, the sale of the 27 percent stake of Citigroup common stock has moved too slowly, and the administration should consider a large underwritten sale of that stock to lock in profits and reduce taxpayers' firm specific risk in the large bank.

I thank Chairman Moore and ranking member Biggert and the other members of the subcommittee for inviting me today and holding this hearing on the taxpayers' warrants. I look forward to learning more about the SIGTARP's study on the warrant process. Further, I look forward to and encourage the subcommittee members' questions and perspectives.

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[ii] My research on the TARP is at www.TARPwarrants.com.

[iii] See Phillip Swagel, 2009, "The Financial Crisis an Inside View," *Brooking Papers on Economic Activity* Spring, 1-63, accessed online on May 7, 2010, at http://www.brookings.edu/economics/bpea/~/media/Files/Programs/ES/BPEA/2009_spring_bpea_papers/2009_spring_bpea_swagel.pdf.; Barney Frank, October 11, 2008, "Congressman Barney Frank's Letter to Constituents on the Economic Crisis," accessed online at http://www.house.gov/frank/economiccrisis101108.html.; and page 305 of Henry M. Paulson, Jr., 2010, *On the Brink: Inside the Race to Stop the Collapse of the Global Financial System*, New York: Business Plus.

[iv] See Linus Wilson, "The Goldman Sachs Warrants," 2009, *Review of Business*, Vol. 30, No. 1, Fall 2009, pp. 4-32, accessed online on May 7, 2010, at http://www.stjohns.edu/download.axd/0333259325f24e20bf0db9ec84035b6f.pdf?d=M1-5804%20Review%20of%20Businessfall2009; Patrick Hosking and Leo Lewis, September 25, 2008, "Warren Buffett stake in Goldman Sachs earns $783 million return," *The Times* (of London), accessed online on May 4, 2009 at http://business.timesonline.co.uk/tol/business/industry_sectors/banking_and_finance/article4821506.ece.; and Randall W. Forsyth, October 14, 2008, "Buffett Drives a Harder Bargain than Paulson: Banks get cheaper financing from Treasury than from Berkshire Hathaway," *Barron's*, accessed online on October 15, 2008 at http://online.barrons.com/article/SB122401409814533513.html. As part of the Capital

Purchase Program (CPP) designed by the former Goldman Sachs chief executive Henry Paulson, the taxpayers received preferred stock that paid a dividend of 5 percent for the first five years and 9 percent thereafter when it invested $10 billion in Goldman Sachs. The taxpayers' warrants were attached to 15 percent of the preferred stock's par value. In contrast, Warren Buffet through Berkshire Hathaway bought preferred stock with 10 percent dividends and warrants on 100 percent of the purchase price. Warren Buffet's warrants issued by Goldman Sachs had a lower strike price than the taxpayers' warrants, but they only had five years to expiration. Mr. Paulson argues in his memoir that the Omaha billionaire, Warren Buffett, encouraged him to give such generous terms to Goldman Sachs and the other banks. See page 355 of Henry M. Paulson, Jr., 2010, *On the Brink: Inside the Race to Stop the Collapse of the Global Financial System*, New York: Business Plus. Paulson writes, "Warren [Buffett] suggested asking for a 5 or 6 percent dividend…my team had been leaning towards a 7 or 8 percent dividend." Thus, the interests of billionaires came before taxpayers' interests early on in the CPP program.

[v] Congressional Budget Office, 2009, "The Troubled Asset Relief Program: Report on Transactions through December 31, 2008" accessed online on May 6, 2009 at http://www.subsidyscope.com/projects/bailout/documents/15/ and Congressional Oversight Panel, 2009, February 6, 2009, "February Oversight Report: Valuing Treasury's Acquisitions," accessed online on May 5, 2009, at http://cop.senate.gov/reports/library/report-020609-cop.cfm.

[vi] This argument was advanced by Diane Casey Landry, Chief Operating Officer, American Bankers Association, in an April 14, 2009, letter addressed to U.S. Treasury Secretary, Timothy Geithner. The article quoted was Damian Paletta and Deborah Solomon, April 22, 2009, "Financial Firms Lobby to Cut Cost of TARP Exit," accessed online on April 27, 2009 at http://online.wsj.com/article/SB124035639380840961.html.

[vii] See my papers Linus Wilson, "The Goldman Sachs Warrants," 2009, *Review of Business*, Vol. 30, No. 1, Fall 2009, pp. 4-32, accessed online on May 7, 2010, at http://www.stjohns.edu/download.axd/0333259325f24e20bf0db9ec84035b6f.pdf?d=M1-5804%20Review%20of%20Businessfall2009.; and Linus Wilson, 2009, "Valuing the First Negotiated Repurchase of the TARP Warrants," *SSRN Working Paper*, accessed online on March 7, 2010, at http://ssrn.com/abstract=1404069. The first of dozens of news stories covering the warrant negotiations of the spring and summer 2009 were Eric Dash, May 19, 2009, "Efforts to Repay Bailouts May Undercut Benefit for Taxpayers," New York Times, accessed online on August 16, 2009, at http://www.nytimes.com/2009/05/19/business/19warrant.html and Mark Pittman, May 22, 2009, "TARP Warrants Show Banks May Reap 'Ruthless Bargain' (Update2)" *Bloomberg* accessed online on September 29, 2009, at http://www.bloomberg.com/apps/news?pid=newsarchive&sid=ae2fQFMrDer4.

[viii] The references are Fischer Black and Myron Scholes, 1973, "The Pricing of Options and Corporate Liabilities," *Journal of Political Economy*, *81*, 637–654.; Robert C. Merton, 1973, "Theory of Rational Option Pricing," *Bell Journal of Economics and Management Science*, *4*, 141–183.; and Galai, Dan, and Meir I. Schneller, 1978, "Pricing of Warrants and the Valuation of the Firm," *Journal of Finance*, 33, 1333-1342. The COP report valuing the first eleven negotiations is Congressional Oversight Panel, 2009, July 10, 2009, *TARP Repayments, Including the Repurchase of Stock Warrants*, accessed online on September 28, 2009, at http://cop.senate.gov/documents/cop-071009-report.pdf. The largest difference between my methodology and the COP panel's estimates prior to the December 2009 auctions was that I estimated the value of the warrant cutting provisions which expired at the end of 2009, using the methodology of my paper Linus Wilson, 2010, "A Model for Estimating the Cancellation Probabilities of TARP Warrants" *forthcoming Advances in Accounting Finance and Economics*, accessed online on May 7, 2010, at http://ssrn.com/abstract=1413442.

[ix] H.R. 3232: PROFIT Act of 2009, 111th Congress, 2009-2010, accessed online on September 29, 2009, at http://www.govtrack.us/congress/bill.xpd?bill=h111-3232. This bill if enacted would have required the auction of all bank warrants for banks that received more than $250 million from the TARP.

[x] Dr. Jarrow was employed by the U.S. Treasury from July 15, 2009, to August 15, 2009, according to Robert Jarrow, 2009, "TARP Warrant Valuation Methods," U.S. Treasury, Office of Financial Stability, accessed online on December 30, 2009, at http://www.financialstability.gov/docs/Jarrow%20TARP%20Warrants%20Valuation%20Method.pdf.

[xi] Steve Evans, July 22, 2010, "Are the bank bailouts too generous?" *BBC: Business Daily*, http://www.bbc.co.uk/worldservice/business/2009/07/090722_tarp_business_daily.shtml.

[xii] Colin Barr, July 22, 2009, “Goldman 'warrants' raves from Congress,” *Fortune*, accessed online at http://money.cnn.com/2009/07/22/news/economy/tarp.warrants.fortune/index.htm
[xiii] U.S. Treasury, (2010), “Warrant Disposition Report: Troubled Asset Relief Program,” Office of Financial Stability, accessed online on February 14, 2010, at http://www.financialstability.gov/docs/TARP%20Warrant%20Disposition%20Report%20v4.pdf.
[xiv] Linus Wilson, 2009, “Anchoring Bias in the TARP Warrant Negotiations,” *SSRN Working Paper*, accessed online on May 7, 2010, at http://ssrn.com/abstract=1553969.
[xv] *Ibid*.
[xvi] See the estimates reported in Steve D. Jones, January 15, 2010, “IN THE MONEY: Auctions Up The Ante In Private Warrant Deals,” *Dow Jones Newswires*. Using the methodology in Linus Wilson, 2010, "The Biggest Warrant Auction in U.S. History," *Research in Business and Economics Journal*, *2*, 1-12, I found that five out of six negotiations in December led to prices higher that what could have been expected from auctions. Using the auction and secondary market prices of December 2009, I examined seventeen other small bank deals and found only six of those pre-December 2009 deals were likely better for taxpayers than what could have been achieved from an auction.
[xvii] The Small Business Lending Fund proposes to provide preferred stock with as low as a one percent dividend rate to banks with less than $10 billion in assets. See White House, February 2, 2010, “Fact Sheet: Administration Announces New $30 Billion Small Business Lending Fund,” accessed online on May 7, 2010, at http://www.whitehouse.gov/sites/default/files/FACT-SHEET-Small-Business-Lending-Fund.pdf.
[xviii] The private bank warrants have a par of 5 percent of the taxpayers’ investment and are immediately exercised into preferred stock or subordinated debt, depending on the taxpayers’ investment. They pay a dividend of 9 percent for a privately held C-Corps. For S-Corps, which receive subordinated debt, have CPP warrants that pay 7.8 percent for the first five years and 13.8 percent thereafter. See U.S. Treasury, “Fact Sheet Capital Purchase Program”, Office of Financial Stability accessed online on May 9, 2010, at http://www.financialstability.gov/roadtostability/CPPfactsheet.htm. I assumed that appropriate yield on the private bank’s preferred stock was 9 percent. Further, it was assumed that these banks would repay the taxpayers’ investments in four years.
[xix] Linus Wilson, 2010, “TARP’s Deadbeat Banks,” *SSRN Working Paper*, accessed online on March 7, 2010, http://ssrn.com/abstract=1527270.
[xx] See Andrew McIntosh, November 18, 2009, “Some California banks struggle despite bailout,” *Sacramento Bee*, 18A, accessed online on May 7, 2010, at http://www.sacbee.com/business/story/2331909.html.
[xxi] Linus Wilson, 2010, “Selling Citigroup: A Simulation of the U.S. Treasury’s $37 Billion TARP Share Sale,” *SSRN Working Paper*, accessed online on March 7, 2010, at http://ssrn.com/abstract=1600298.
[xxii] David Lawder and Maria Aspan, “Treasury begins sale of Citigroup stake,” *Reuters*, accessed online on May 7, 2010, at http://www.reuters.com/article/idUSTRE63P4KD20100426.