The Value of Connections In Turbulent Times: Evidence from the United States*

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First Version: May 2009
This Version: May 2013

Abstract

The announcement of Tim Geithner as President-elect Obama's nominee for Treasury Secretary in November 2008 produced a cumulative abnormal return for financial firms with which he had a personal connection. This return was around 15 percent from day 0 through day 10, relative to other comparable financial firms. This result holds across a range of robustness checks and regardless of whether we measure connections in terms of firms with headquarters in New York City, meetings he had in 2007-08, or non-profit board memberships he shared with financial services executives. There were subsequently abnormal *negative* returns for connected firms when news broke that Geithner's confirmation might be derailed by tax issues. Roughly in line with market expectations, the Obama administration hired people from Geithner-connected firms into top level financial policy positions. Geithner's policies proved supportive of large financial firms' executives, shareholders, and creditors – including for Citigroup, with which he had the strongest prior connections. But the market-perceived quantitative value of connections is broader than just for the "too big to fail" category. We argue that this value of connections reflects the perceived impact of relying on the advice of a small network of financial sector executives during a time of acute crisis and heightened policy discretion.

Keywords: cultural capture, political connections, economic crises, institutions
JEL Classification: G01, G14, G21, G28

*For helpful comments we thank seminar participants at MIT, Harvard Business School, the International Monetary Fund, the University of Alberta, BYU, and the 2012 Econometric Society meetings. We are also grateful for very constructive comments from some former policymakers.

1 Introduction

On Friday, November 21, 2008, the news leaked that Timothy Geithner – then president of the Federal Reserve Bank of New York – would be nominated by President-elect Barack Obama to become Treasury Secretary. Over the next 10 days, financial firms with a personal connection to Geithner experienced a cumulative abnormal return of about 15 percent (relative to other financial sector firms). When Geithner's nomination ran into trouble in January 2009, due to unexpected tax issues, there was a fall in the value of Geithner-connected firms, although this effect was smaller than the increases that were observed in November. How should we interpret these results?

This pattern seems unlikely to be a fluke of the data or the result of mismeasurement. We use three different ways of identifying personal connections between financial institutions and Geithner: (i) people who had meetings with Geithner during 2007-08; (ii) people who belonged to the same nonprofit boards as Geithner; and (iii) firms located in New York City, which are under the jurisdiction of the New York Fed. Our results are essentially the same across all three measures of personal connections, and they are robust across a wide range of checks, including various size controls and dropping outliers.

Perhaps firms with abnormal returns were simply those most affected by the crisis and therefore most likely to benefit from the appointment of a competent Treasury Secretary? But our results are also robust when we control for how intensely firms were affected in the most severe phase of the crisis in September-October 2008.

It is also plausible that Geithner's nomination was expected to benefit firms that were "too big to fail" and that these firms were more likely than others to have connections to the incoming Secretary. For example, Geithner had numerous connections to Citigroup, at the time the largest bank holding company in the country. To complicate matters, shortly after news of Geithner's nomination leaked, Citigroup received a bailout arranged by the outgoing George W. Bush administration (with Geithner's involvement).[1] Therefore, in addition to controlling for firm size and other measurable financial variables directly, we drop Citigroup from many of our regressions and also drop the other very large bank holding companies from

[1] Geithner was closely involved in the terms of rescuing Citigroup in fall 2008. However, on the Friday prior to the November Citigroup bailout, news of the nomination leaked. According to Sheila Bair (2012, p. 124), chair of the FDIC, Geithner ceased communications with Citigroup but "continued to advocate strongly for Citi in our internal discussions."

our base sample (although they are included in our extended sample and in the full range of robustness checks). We also employ a matching estimator that allows us to establish a control sample (without Geithner connections) that has characteristics very similar to those in our treatment sample (with Geithner connections). In all cases our results remain robust: the market considered there to be value in being personally connected to Geithner, quite aside from any "too big to fail" issues.[2]

There are at least three reasons why market participants may have held this belief. First, they may have expected that some form of explicit corruption could take place. In some countries, such as Indonesia, Malaysia or Pakistan, potential corruption is a reasonable interpretation of stock price movements for connected firms, but it is highly unlikely to explain what happened in the United States. Political connections are valuable in countries with weak institutions: when formal property rights are weak, transparency is limited, and politicians have a great deal of discretion or not much accountability, personal ties to the people in power are worth a great deal.[3] However, it is implausible to suggest that the United States under Obama is anything like Indonesia under Suharto.[4] Studies of policy-making under the Obama administration by Suskind (2011) and Scheiber (2011) and first-hand accounts by Bair (2012) and Barofsky (2012) (none of which are particularly sympathetic to Geithner) contain no suggestion of corruption. Geithner has never run for public office and seems unlikely to ever do so, making political contributions irrelevant.[5]

Second, market participants may have believed that Geithner's policy preferences were

[2] We also examine evidence on the market-perceived probability of bankruptcy from credit default swap spreads, although the available sample for these data is smaller than for equities. In theory, investors might have expected that all financial firm debt would be "protected" from default by government action in fall 2008, while also believing that shareholders in favored firms would receive advantages relative to shareholders in other firms. In our data, we find the same pattern in CDS spread data as in equity data – i.e., there was a perceived benefit to creditors (in the form of lower implied default risk) when the firms' executives knew Geithner.

[3] For example, in a seminal study, Fisman (2001) found that being connected to President Suharto accounted for 23 percent of firms' value on average in the mid-1990s (where the events were rumors about the president's health). For Malaysia in the late 1990s, Johnson and Mitton (2003) found that connections to Prime Minister Mahathir accounted for around 20 percent of firms' total stock market value in a crisis, where the event was the fall from power of Anwar Ibrahim, the Minister of Finance.

[4] By most measures and at most times, the US has strong institutions (see Acemoglu and Robinson (2012)). The established results that show large effects for political connections are based on data from countries with much weaker institutions than the modern United States. For example, in Pakistan there are strong personal connections between the people who run firms and the directors of banks (Khwaja and Mian (2005)); Dinç (2005) has related cross-country findings. In Weimar Germany during the late 1920s, corporate executives shifted allegiances as the political winds changed (Ferguson and Voth (2008)).

[5] Duchin and Sosyura (2012) find that politically connected firms were more likely to receive TARP funds, and also that such firms performed worse than unconnected firms. However, they measure connections to Congress, not to Secretary Geithner.

generally consistent with the interests of the financial institutions with which he was connected. On this theory, instead of favoring firms because he had connections with them, Geithner's prior personal connections had already shaped his perspectives on the financial sector and financial crisis. In particular, his close connections to large, complex, Wall Street banks had persuaded him that broader economic prosperity required rescuing those banks on relatively generous terms (for shareholders, as well as executives and creditors). Our results, however, are not based on a comparison of financial to non-financial firms or of large to small financial firms. Rather, they are driven by a comparison of connected to non-connected firms of a similar size – the results hold when we drop all firms that were plausibly of systemic importance. Even if Geithner had adopted the worldview that Wall Street was "too big to fail", this cannot directly account for our results.

Third, the market may have subscribed to the "social connections meets the crisis" hypothesis: that personal connections would matter during a time of crisis and increased policy discretion. It was reasonable to suppose that immediate action with limited oversight would have to be taken, and that officials would rely on their small network of confidantes for advice and assistance.

Powerful government officials are no different from the rest of us; they know and trust a limited number of private sector people. It is therefore natural to tap these people for their expertise when needed – including asking them for advice and hiring them into government positions. Even with the best intentions, beliefs are presumably shaped by self-interest, particularly when the people involved were, are, or will be executives with fiduciary responsibility to shareholders. These tendencies can be checked to some degree during regular times by institutional constraints and oversight, but during times of crisis and urgency, social connections might become particularly powerful.

At the time of his nomination, Geithner knew some prominent individuals in the financial sector very well. He is a long-time protégé of Robert Rubin, who was Treasury Secretary under President Bill Clinton, former co-chair of Goldman Sachs, and more recently a leading board member at Citigroup (he resigned from the latter position in January 2009). Most notably, from November 2003, Geithner was president of the Federal Reserve Bank of New York – an institution that has traditionally served as the eyes and ears of the Federal Reserve on Wall Street, but which is sometimes considered to have become too much influenced by the

thinking at large financial institutions.[6] We document below that, in line with this hypothesis, as Treasury Secretary, Geithner hired people from a few financial institutions that he knew well. These appointees and Geithner apparently shared the view that their specific financial institutions are essential to the wellbeing of the economy.

Our findings find a stronger effect of relationships compared with the standard results in seemingly related studies for the United States. In part, previous studies have examined different kinds of connections, focusing on the legislature, where the impact of a single individual is likely to be limited. For example, the so-called Jeffords Effect – named after a Senator who switched parties unexpectedly, causing a change of control in the U.S. Senate – is worth around 1 percent of firm value (Jayachandran (2006)). Roberts (1990) found significant but small effects on connected firms from the unexpected death of a U.S. Senator.

Also, the crisis conditions of 2008 are likely quite different from what happens in non-crisis episodes. Fisman, Fisman, Galef, and Khurana (2006) conducted a comprehensive assessment of the value of connections to former Vice President Dick Cheney, measured using the impact on connected firms' stock prices of events such as his heart attacks, surprise news about his political career, the original Bush-Cheney "hanging chad" presidential election victory, and Iraq war developments. They look carefully for evidence that his connections matter, but do not find significant effects.[7] Repeating our analysis for the nomination of Secretary Hank Paulson during regular times also leads to no connection premium.

Geithner ascended to the highest level of power at an unusual moment, with many ideas in flux and great differences in opinion between otherwise well-informed and experienced people. Specifically, opinions about responsible policy dealing with the financial sector have often been convergent in recent decades in the United States – as a practical matter, this meant that deregulation continued, irrespective of who became Treasury Secretary.[8] But during the

[6] Formal responsibility for supervision rests with the Board of Governors in Washington D.C., but the New York Fed is very much engaged in collecting information and interpreting what is going on. By tradition, the president of the New York Fed plays a particularly important role in managing relationships between the official sector and financial services executives who are based in New York ("Wall Street", broadly defined). He is also, ex officio, vice chair of the Federal Open Market Committee, which sets monetary policy. (All presidents of the New York Fed to date have been men.)

[7] Fisman et al. (2006) write, "Contrary to conventional wisdom, we find that in all cases the value of ties to Cheney is precisely estimated as zero. We interpret this as evidence that U.S. institutions are effective in controlling rent-seeking through personal ties with high-level government officials."

Lower down the official hierarchy, there may be more issues. For example, Dube, Kaplan and Naidu (2011) find that (leaked) credible private information on coup attempts backed by the United States does move stock prices.

[8] Igan, Mishra, and Tressel (2011) find that lobbying of legislators by lenders was associated with more risk-

intense crisis of 2008 there was a wide range of opinions among policy experts – and potential Treasury Secretaries – regarding what should be done, with significant potential implications for shareholders.

During such an episode where immediate action was or was thought to be necessary, it is plausible that the usual institutional checks may not work and social connections may become more important both as sources of ideas and sources of manpower.[9] This interpretation is also consistent with recent work by Querubin and Snyder (2011); using a regression discontinuity approach, they find that American politicians were not able to enrich themselves before or after the U.S. Civil War, but during the war, there were substantial opportunities for corruption – either because there was more government spending or because the media were distracted or both.

Section 2 reviews the historical context and why market participants may have expected Geithner to have the opportunity and inclination to favor certain firms. Section 3 explains our coding of connections and discusses the other variables we use. Section 4 presents our basic results and a range of robustness checks. Section 5 discusses the effects on firms with connections to other candidates for the post of Treasury Secretary. Section 6 analyzes the effects of Geithner's tax issues, which temporarily jeopardized his nomination in January 2009. Section 7 discusses the design and implementation of bailout policy and financial reform under the Geithner Treasury. Section 8 concludes.

2 The Context and Event

2.1 Context

The financial crisis first became clearly evident in mid-2007, when problems with subprime mortgages began causing major losses at specific hedge funds or structured investment vehicles with large exposures to securities backed by subprime debt. However, the crisis grew rapidly in severity over the spring and summer of 2008 - culminating in the collapse of Lehman Brothers

taking before the crisis and worse outcomes in 2008, while Igan and Mishra (2012) examine how the political influence of the financial sector affected deregulation. Mian, Sufi, and Trebbi (2010) establish that members of Congress were more likely to support the Emergency Economic Stabilization Act of 2008 when they received higher contributions from the financial services industry.

[9] Faccio (2006) finds connections exist everywhere, but does not establish their relative value in various settings. Faccio, Masulis, and McConnell (2006) show connected firms are more likely to receive bailouts across a wide range of countries. But the probability of bailout is much lower in richer countries, and the size of bailouts as a percent of GDP - at least until recently - must have been lower in rich industrialized democracies (although this is not the focus of their study.) See also Chiu and Joh (2004) and Dinç (2005).

and a full-blown ginancial panic.

These developments prompted Paulson and Bernanke to propose the bill that eventually became the Emergency Economic Stabilization Act (EESA), whose centerpiece was the $700 billion Troubled Assets Relief Program (TARP).[10] On October 14, Treasury, the Federal Reserve, and the Federal Deposit Insurance Corporation (FDIC) announced two measures that finally began to calm the markets. The first measure was that $250 billion of TARP money was available to recapitalize financial institutions, and $125 billion had already been accepted by nine major banks. The second was a program under which the FDIC would guarantee new debt issued by banks.[11] By mid-November, when President-elect Obama was selecting his Treasury Secretary, the crisis was far from over.

2.2 Channels of Influence

Why might market participants have believed that the nomination of Tim Geithner as Treasury Secretary would be good for Geithner-connected firms relative to unconnected firms? This inquiry can be separated into two more specific questions. First, in this subsection we discuss how being connected to powerful officials can benefit a firm in general. In the next subsection, we ask why people might think that such connections would be particularly beneficial in the case of Geithner at Treasury. In evaluating both questions, it is important to bear in mind that market reaction requires only some set of plausible expectations on the part of market participants, not any actual favoritism on the part of the person in question.

There are several potential channels of influence that we believe do not operate here – that is, there was probably not even a significant perception that they might have mattered in Geithner's case. These include: (a) outright corruption, where firms (or their lobbyists) pay officials directly for favors; (b) campaign financing, where elected officials know which firms contribute to their campaigns and what issues are important to them (Geithner, of course, was unelected); and (c) the revolving door, where government officials can maximize their

[10] On Thursday, September 18, Paulson and Bernanke provided a dramatic briefing to congressional leaders. According to Chris Dodd, then chair of the Senate Banking Committee, they were told "that we're literally maybe days away from a complete meltdown of our financial system, with all the implications here at home and globally." (http://www.nytimes.com/2008/09/20/washington/19cnd-cong.html)

The initial Treasury proposal, published on September 20, was only three pages long and did not specify any independent oversight mechanisms. "Text of Draft Proposal for Bailout Plan," The New York Times, September 20, 2008. The initial legislative proposal was rejected by the House of Representatives on September 29. An amended version passed and was signed into law on October 3, 2008.

[11] "Joint Statement by Treasury, Federal Reserve and FDIC," Treasury Department Press Release, October 14, 2008, available at http://www.treas.gov/press/releases/hp1206.htm.

expected income by being friendly with the firms they oversee and later securing lucrative jobs with them. (Before the Treasury nomination, Geithner already had ample opportunity to land jobs with seven- or eight-figure expected annual incomes.)

There are two remaining channels of influence that market participants in November 2008 could reasonably have expected to apply. One is the power of connections. This is the same currency that lobbyists trade in legally. When powerful people make decisions, they are going to be influenced by the people they talk to; and the people they talk to will be the people they know (Bertrand, Bombardini, and Trebbi (2011), and Blanes-i-Vidal, Draca, and Fons-Rosen (2012)). By November 2008, Geithner knew the leaders of the New York financial community very well, and it could reasonably be expected that he would continue to take their calls, and listen to them seriously, as Treasury Secretary.[12]

In addition to the simplest form of access through social connections – the fact that any official is more likely to take a phone call from and listen to someone he knows than someone he does not know – another form of access is provided by hiring. Any new administration must fill a large number of important positions, and personal connections are a main factor in hiring decisions. It would be expected that firms that were connected to Geithner would be more likely to place employees or alumni at Treasury and in related administration jobs than firms that lacked such connections. This was certainly the case for the Paulson Treasury, which brought on a seemingly disproportionate number of people with connections to Goldman Sachs. Even if Geithner were not to favor connected firms directly, they could still benefit through the influence of their alumni.

The second plausible channel of influence is the convergence of perspectives and interests that can occur through immersion in a certain social or institutional context. People's beliefs about the world tend to be shaped by the people and organizations that they spend time with. If a government official previously spent years regularly interacting with the executives of one set of firms and not with the executives of another set of firms, it is plausible that his policy preferences will be closer to those of the former group than the latter. Once in office, this could lead him to make decisions that favor connected over unconnected firms, even were he to provide equal access to all firms. We refer to this type of influence as "cultural capture"

[12] We should emphasize that drawing on pre-existing relationships on Wall Street is well established practice for a Treasury Secretary, and did not begin with Geithner. For example, Henry Paulson brought in more and more Goldman Sachs "experts" as the crisis deepened, including Neel Kashkari, who was charged with running the original Troubled Asset Relief Program. Because of his expertise, Kashkari was initially kept on by Geithner.

because it can lead to outcomes similar to those produced by traditional regulatory capture.

In recent decades, the financial sector – particularly the large New York investment banks (Goldman Sachs, Morgan Stanley) and universal banks (Citigroup, JPMorgan Chase) – occupied an increasingly prominent position not only in the U.S. economy, but in Americans' perceptions of society.[13] The belief that financial innovation and large financial institutions are good for society became increasingly widespread and was largely adopted by the Bill Clinton and George W. Bush administrations.[14] Geithner, as a product of the Clinton Treasury Department and the New York Fed, seemed to share this attitude, and his years at the New York Fed had required him to pay particular attention to the views of a specific set of banks.

It is important to note that under the "access" hypothesis, market participants would expect Secretary Geithner to favor financial institutions based on actual connections; under the "cultural capture" hypothesis, by contrast, he would be expected to favor institutions based on how similar they were to the institutions he was connected to – not based on actual connections. Empirically, these two expectations would produce different results. If, controlling for firm type, it is only connected firms that enjoy abnormal returns in the post-announcement period, that implies that market participants believed the "access" hypothesis rather than the "cultural capture" hypothesis.

2.3 Expectations in November 2008

The Treasury Secretary has considerable influence over the fate of the banking industry under any circumstances, with significant responsibility for economic policy and financial regulation.[15] By November 2008, however, Treasury was also intervening much more directly in the banking system than had been previously thought possible. That intervention took two main forms: emergency bailouts (or not) of major financial institutions; and TARP, which was intended as support for the financial sector more broadly.

TARP explicitly granted broad powers to Treasury to intervene in the financial sector, and Paulson had used them to pressure nine major banks into accepting $125 billion of new gov-

[13] Bhagwati (1998) makes this point in the context of arguing that Wall Street pushed Washington to lobby for capital market liberalization around the world.

[14] For a history of financial sector lobbying and regulatory capture by financial sector interests in the United States, see Johnson and Kwak (2011), chapters 3 through 6.

[15] Two of the major banking regulators, the Office of the Comptroller of the Currency (OCC) and the Office of Thrift Supervision (OTS), were part of the department, although with some degree of independence. Treasury works closely with the other major banking regulators. OTS was abolished by the Dodd-Frank reforms.

ernment capital.[16] TARP was especially significant because it gave the Treasury Department a direct role in determining which banks succeeded or failed. Although the Capital Purchase Program distributed capital on relatively generous terms, access to capital was controlled by Treasury. In late October, for example, National City was acquired by PNC after learning that its application might not be approved.[17] At the time, there was little transparency about how applications were being reviewed and what criteria were being used to determine which banks received capital. Because the Capital Purchase Program appeared to convey a government seal of approval while providing capital on relatively favorable terms,[18] it provided an example of how the government could provide benefits to financial institutions – with the Treasury Department determining who received those benefits (Veronesi and Zingales, 2010).

In addition, the Capital Purchase Program placed significant holdings of preferred stock in the hands of the Treasury Department, as well as warrants on common stock. Although the preferred stock was non-voting and Treasury committed not to vote its shares of common stock, this still left open the prospect of increased government influence; participating institutions were also subject to executive compensation and corporate governance requirements.[19] The mechanics of implementing TARP were housed within Treasury, and managed by people appointed by the Treasury Secretary – initially, largely by people whom Secretary Paulson knew from his tenure at Goldman Sachs, vividly demonstrating the potential importance of personal relationships.[20] Because there was considerable uncertainty about how and

[16] Damian Paletta, Jon Hilsenrath, and Deborah Solomon, "At Moment of Truth, U.S. Forced Big Bankers to Blink," The Wall Street Journal, October 15, 2008.

[17] Dan Fitzpatrick, David Enrich, and Damian Paletta, "PNC Buys National City in Bank Shakeout," The Wall Street Journal, October 25, 2008.

[18] The investment terms were considerably more favorable than those available from the private sector, such as in Warren Buffett's investment in Goldman Sachs. According to Bloomberg, the government received warrants worth $13.8 billion in connection with its 25 largest equity injections; under the terms Buffett got from Goldman, those warrants would have been worth $130.8 billion. In addition, TARP received a lower interest rate (5%) on its preferred stock investments than did Buffett (10%). Nobel prize-winner economist Joseph Stiglitz said, "Paulson said he had to make it attractive to banks, which is code for 'I'm going to give money away.'" Mark Pittman, "Paulson Bank Bailout in 'Great Stress' Misses Terms Buffett Won," Bloomberg, January 10, 2009, available at http://www.bloomberg.com/apps/news?pid=newsarchive&sid=aAvhtiFdLyaQ. The TARP Congressional Oversight Panel had similar findings. TARP Congressional Oversight Panel, "February Oversight Report: Valuing Treasury's Acquisitions," available at http://cop.senate.gov/documents/cop-020609-report.pdf. Although there were justifications for this subsidy – in particular, Treasury wanted broad participation in order to avoid stigmatizing particular banks – it still constituted potential expected value that the government was willing and able to transfer to specific financial institutions.

[19] "TARP Capital Purchase Program: Senior Preferred Stock and Warrants," available at http://www.treas.gov/press/releases/reports/document5hp1207.pdf.

[20] Neel Kashkari, a Goldman Sachs alumnus, was named as interim head of TARP. Reuben Jeffrey, another Goldman alumnus, was named as interim chief investment officer, and several other ex-Goldman executives played important roles in the Paulson Treasury, as profiled in contemporaneous articles in both The New York

to what degree Treasury would attempt to exercise influence over banks that had received TARP money, knowing the Treasury Secretary could easily be seen as a major advantage for a bank.

Geithner was known to have personal connections to several major New York banks. He had worked for then-Treasury Secretary Robert Rubin during the Clinton administration; Rubin, the former co-chair of Goldman Sachs, later served as chair of the executive committee of Citigroup's board of directors. As president of the New York Fed, he met frequently, and in private, with the heads of all of the major New York banks, and was even approached by Sanford Weill as a potential CEO of Citigroup.[21]

In addition to these personal connections, Geithner's record as head of the New York Fed and his stated policy positions were generally thought to be favorable to the large, sophisticated institutions that often showed up on his schedule. For example, he argued for the adoption of the Basel II standards for capital adequacy, which allowed large banks to use their own risk management models to determine their capital requirements.[22]

The New York Fed-supported sale of Bear Stearns to JPMorgan Chase was seen at the time as a very good deal for the acquirer, which was one of the largest New York banks and whose CEO, Jamie Dimon, was then a director of the New York Fed. Geithner supported using government funds to purchase troubled assets from banks directly, which would benefit the banks with the largest portfolios of those assets.[23]

Market participants reacted to news of Geithner's impending nomination by evaluating his likely future behavior relative to that of other plausible alternatives. As of November 15, 2008, the top candidates for the job, according to Intrade's prediction market, were Geithner (45% chance), Lawrence Summers (26%), Jon Corzine (10%), Paul Volcker (9%), and Sheila Bair (8%).[24] In comparing Geithner to these other possibilities, market participants would have

Times and The Wall Street Journal. Julie Creswell and Ben White, "The Guys from 'Government Sachs'," The New York Times, October 17, 2008, available at http://www.nytimes.com/2008/10/19/business/19gold.html; Deborah Solomon, "The Financial Crisis: Amid Turmoil, Tireless Team Of Advisers Backed Paulson," The Wall Street Journal, September 17, 2008.

[21] Jo Becker and Gretchen Morgenson, "Geithner, Member and Overseer of Finance Club," The New York Times, April 26, 2009, available at http://www.nytimes.com/2009/04/27/business/27geithner.html.

[22] Jo Becker and Gretchen Morgenson, "Geithner, Member and Overseer of Finance Club," The New York Times, April 26, 2009, available at http://www.nytimes.com/2009/04/27/business/27geithner.html.

[23] According to Jeffrey Lacker, president of the Richmond Fed, Geithner in 2007 discussed an upcoming reduction in the Federal Reserve's discount rate (a rate at which banks can borrow directly from the Fed) with a few large banks; although Lacker's allegation was not made public until 2013, if true, it would certainly have been known by executives at the banks in question. Alister Bull, "Fed Official Alleges Geithner May Have Alerted Banks to Rate Cut," Reuters, January 19, 2013.

[24] James Pethokoukis, "Geithner Tops Odds for Next Treasury Secretary," U.S. News & World Report, No-

been interested in three distinct issues: what policies they were likely to follow; the set of firms to which they were connected; and the degree to which they might be influenced (through any channel) by those firms.

There are reasons why people might have expected some other candidates to follow different policies as Treasury Secretary – policies that might have been less favorable to the types of banks that Geithner was connected to. For example, Corzine, despite having served as chair of Goldman Sachs in the 1990s, was now the favored candidate of at least part of the labor movement.[25] Bair favored a narrower loan guarantee program than Geithner and eventually supported the sale of Wachovia to Wells Fargo rather than Citigroup; she also advocated for relatively more assistance for homeowners and relatively less for financial institutions. Geithner's nomination would then have been seen as a good thing for some of the banks to which he was connected (e.g., Citigroup); but it could also have been seen as a good thing for other, similar banks to which he was less connected (e.g., Bank of America).

For connections to have positive value in and of themselves, two other factors could be at work. First, Geithner could have a different set of connections than the other candidates. This was generally the case, although there was considerable overlap between his and Summers's networks. Second, connections could be thought to have different value for different potential Treasury Secretaries. For example, Summers had a reputation as a brilliant, independent-minded academic economist and as a controversial figure; this could have reduced the perceived value of access to him. Volcker's primary reputational attribute was the idea that he was willing to make hard choices for the good of the country, including inflicting pain when necessary, a reputation earned in combating high inflation in the early 1980s. Although he had worked for Chase Manhattan in the 1950s and 1960s, and had been president of the New York Fed in the 1970s, by 2008 he was considered highly independent of any influence.[26] So if a banking executive had connections to both Geithner and Volcker, he might have expected the connection to Geithner to be more valuable.

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vember 15, 2008 (online).

[25] Elizabeth Holmes, "Corzine Emerges as a Candidate for Treasury Secretary," The Wall Street Journal, November 13, 2008.

[26] "[Politicians] certainly will not accuse Mr. Volcker of doing Wall Street's bidding at the expense of Main Street." Joe Nocera, "Paul Volcker for Treasury Secretary," The New York Times, October 17, 2008.

3 Data and Descriptive Statistics

Our sample consists of all firms that trade on the NYSE or NASDAQ that are categorized as banks or financial services firms in the Datastream database. Of these 678 firms we exclude firms that lack sufficient stock return data in the Datastream or TAQ databases to calculate abnormal returns for our Geithner announcement event. The remaining sample of 603 firms we refer to as the "full sample".

A potential complication is Citigroup's bailout which occurred between the news leak of Geithner's expected nomination on November 21 and the official announcement on November 24. On Sunday, November 23, the U.S. government entered into a bailout agreement with Citigroup that provided Citigroup with a $20 billion capital infusion through TARP, as well as guarantees on a pool of $306 billion of troubled assets.[27]

Because the bailout occurred in the middle of the event window for the Geithner announcement, and because the bailout (or at least the timing of the event) was not entirely anticipated, it could confound the estimation of the effect of the Geithner announcement, to the extent that there is any correlation between firms connected to Geithner and firms impacted by the Citigroup bailout news.[28] In our tests, we address this issue in two ways. First, we report results for stock price reactions on November 21 only, which is prior to the Citigroup bailout announcement. While this approach avoids the confounding effects of the Citigroup bailout, it is not entirely appealing because the post-leak return on November 21 is only one hour in length, and because some uncertainty about the nomination remained until the official announcement on November 24. So as a second approach, we exclude from our tests the firms that would be most likely to be affected by the bailout announcement. We rank all firms in the sample based on their return correlation with Citigroup during the period beginning the day of the Lehman collapse and ending the day before the Geithner nomination announcement. We exclude all firms that rank among the top 10% in correlation with Citigroup, and call this reduced sample our "base sample". The use of this base sample should eliminate, to a great extent, the impact

[27] "Joint Statement by Treasury, Federal Reserve, and the FDIC on Citigroup"(press release), November 23, 2008.

[28] It is not certain that a bailout would be positive news for Geithner-connected firms. We test the effect of Geithner connections on returns surrounding another significant government bailout, the bailout of Bank of America on January 16, 2009. The Bank of America bailout was similar in structure to the Citigroup bailout, and confirmed the government's willingness to take unprecedented measures to keep the largest banks afloat. However, our tests show that cumulative abnormal returns for Geithner-connected firms surrounding the Bank of America bailout are generally negative, which suggests that Geithner-connected firms do not generally have positive responses to the news of significant government bailouts of major banks.

of the bailout announcement on our estimations.

Table 1 reports summary statistics of our variables for political connections and financial data. We identify connections to Geithner in three different ways. The first measure of connections, which we refer to as "schedule connections", identifies the number of times that Geithner interacted with executives from each firm while he was president of the New York Fed. We identify these interactions by searching Geithner's daily schedule for each day from January 2007 through January 2009.[29] For example, a search of Geithner's schedule for Moody's Corporation reveals two interactions between Geithner and executives of Moody's. On July 5, 2007, the schedule reads, "11:30 a.m. to 12:00 p.m. Meeting w/Raymond McDaniel, Chairman & CEO, *Moody's Corporation*", and on September 15, 2008, the schedule reads "11:00 a.m. to 12:00 p.m. Rating Agencies Meeting" and Raymond McDaniel is listed as one of the participants. Based on this information, we code Moody's schedule connections as two. Row 1 of Panel A of Table 1 reports descriptive statistics for this variable. By far the firm with the greatest number of interactions listed on Geithner's schedule is Citigroup, with a total of 34. Panel A of Appendix Table A3 lists all of the sample firms found on Geithner's schedule and the number of interactions.

The second measure of connections to Geithner, which we refer to as "personal connections", identifies the number of links that Geithner has with each firm through personal relationships. We identify these links using the relationship maps provided by muckety.com (run by reputable independent journalists).[30] The maps on muckety.com show the links for a given individual to other people or to organizations.[31] We count a link between Geithner and a firm if he has a personal link with a person who is a director of the firm, or if he shares a board or similar position (e.g., trustees of the Economic Club of New York) with someone who works for the firm.[32] We require that those links be active as of the time of the announcement of Geithner's nomination. For example, we find a link between Geithner and American Express

[29] "Geithner's Calendar at the New York Fed," The New York Times, available at http://documents.nytimes.com/geithner-schedule-new-york-fed.

[30] These data are broadly similar to what is available for emerging markets, e.g., Gomez and Jomo (1997 and 1998) on Malaysia. Many connections in emerging markets are formed early in careers. Most of the Geithner connections seem to come from his time at the New York Fed, but that job and many of his connections appear to arise from his relationship with Robert Rubin. We use muckety.com relationship maps from 2009.

[31] Measuring connections in ths way is standard in the network sociology literature. See, for example, Useem (1984). Fisman et al. (2006) review the sociology literature on why board ties matter, including for the flow of information.

[32] Most of our data are board memberships, which are a matter of public record. However, the muckety.com coding also contains some well-known mentor/adviser relationships, with Robert Rubin and a few others.

on muckety.com through Kenneth Chenault, chairman and CEO of American Express, who is associated with Geithner through the National Academy Foundation, where they are both directors, and through the Partnership for New York City, where Chenault is a vice chairman and Geithner is a board member. Based on this information we code personal connections for American Express as one. Descriptive statistics for this variable are reported in Row 2 of Table 1. Geithner has the greatest number of personal connections (nine) to Citigroup; in contrast, he has only one connection with Bank of America (a company not based in New York). Appendix Table A1 lists all of the identified personal connections between Geithner and sample firms. We use the same methodology to identify personal connections for other candidates for Treasury Secretary including Lawrence Summers, Jon Corzine, Paul Volcker, and Sheila Bair. These identified connections are listed in Appendix Table A2.

To independently verify the accuracy of the information provided by muckety.com we search the annual reports of each company with an identified personal connection to Geithner, as well as other publicly available information. We are able to verify 52 of the 58 connections reported by muckety.com, 45 of those using the annual report filed most immediately subsequent to the Geithner nomination announcement (typically, for years ending December 31, 2008), and another seven using other sources such as Forbes and Bloomberg. Of the remaining six connections, two are confirmed to be errors and are excluded from our data. The other four are unique to the list of connections in that the connected individuals are identified as legal counsel for financial firms in the sample. These have also been excluded from our data due to the difficulty of verifying the connection and because of the different nature of the connections. These exclusions leave us with a set of 52 personal connections to Geithner from 21 different financial firms.

The third measure of connections to Geithner is based on firm location, under the reasonable assumption that Geithner would have greater contact with executives of firms headquartered in New York City, where Geithner was located as president of the New York Fed. This variable is a dummy variable set to one if the headquarters of the firm is identified as New York City in the Datastream database. Descriptive statistics are reported in Row 3 of Table 1. Forty-five of the sample firms have headquarters in New York City; these firms are listed in Appendix Table A4.

Rows 4 through 6 of Panel A of Table 1 report basic financial information for the sample firms as obtained from the Worldscope database for the year 2008. Size (Row 4) is reported as

the logarithm of total assets, profitability (Row 5) is return on equity, and leverage (Row 6) is the ratio of total debt to total capital. As shown in Panel A, financial information is missing for a few of these firms. Rows 7 through 9 report summary statistics for our primary measure of firm performance, cumulative abnormal stock returns (CARs). Calculation of CARs is discussed in the next section. Rows 10 through 12 report statistics for our secondary measure of performance, changes in credit default swap (CDS) spreads, which are also discussed in the next section.

Panel B of Table 1 reports differences in the means of these variables between firms connected to Geithner and non-connected firms; for this panel his schedule connections are converted to a dummy variable for any connections. Row 13 of Panel B shows that connected firms are significantly larger than non-connected firms for all three measures of connections. Row 14 shows that profitability is significantly lower for connected firms, but only when we use the New York measure. Row 15 shows that leverage is higher for connected firms, but the difference is only significant for the schedule measure of connections. Panel C repeats the analysis of Panel B for the base sample. The differences reported in Panel C are broadly similar to those reported in Panel B. Because of the performance differences shown in Panels B and C, we will control for these variables in subsequent analysis. Finally, Panel D of Table 1 reports correlation coefficients between the explanatory variables reported in Panel A.

4 Geithner Connections and Stock Returns

In this section we study whether connections to Geithner, as defined in the previous section, are associated with differences in returns at the time of the announcement of Geithner's nomination. We begin by calculating returns for each firm in the sample on the relevant dates. Geithner's nomination was officially announced by President-elect Barack Obama early on Monday, November 24, 2008. However, news of his impending nomination was leaked to the press late in the trading day on Friday, November 21, 2008 at approximately 3:00 p.m. ET, a time that coincides with the beginning of a stock market rally. For the purposes of studying stock reactions, we define event day 0 as November 21 and event day 1 as November 24, with subsequent event days corresponding to subsequent trading days. We obtain daily stock returns for each sample firm from the Datastream database. In order to more carefully delineate the response to the Geithner announcement on event day 0, we calculate returns on that day

as only the returns from 3:00 p.m. until the market close at 4:00 p.m. We obtain intraday returns from the TAQ database.

4.1 Univariate Tests

Panel A of Table 2 compares actual returns between connected and non-connected firms in the base sample for event days 0 through 10. Panel A shows that on event day 0, using schedule connections, connected firms outperformed non-connected firms by 4.3 percentage points, a difference that is significant at the 5% level. Results are similar for the other measures of connections, though not statistically significant for personal connections. On event day 1, when the nomination was officially announced, return differences are even more pronounced. Using the schedule measure, connected firms outperformed non-connected firms by 8.4 percentage points on this day. The corresponding outperformance for firms with personal connections is 9.6 percentage points, and for firms with New York connections it is 3.1 percentage points. In all cases the difference is significant at the 1% or 10% level.

Panel A shows that connected firms continued to outperform non-connected firms on each day through event day 10, with the primary exception being event day 5, in which connected firms sharply underperformed non-connected firms.[33] The final row of Panel A reports cumulative performance for event days 0 through 10. Using the schedule measure of connections, connected firms outperformed non-connected firms by 37.2 percentage points over this period. For personal connections the difference was 46.3 percentage points, and for New York connections the difference was 29.9 percentage points. By any measure of connections, the outperformance of connected firms over this period was economically large and highly statistically significant.

Because there were large market movements during the event window, it is important to also calculate abnormal returns for the event days. Our procedure for calculating abnormal returns is outlined in Campbell, Lo, and MacKinlay (1997). We calculate cumulative abnormal returns using the market model as follows:

$$CAR[0,n]_i = \sum_{t=0}^{n} AR_{it},$$

where $CAR[0,n]_i$ is the cumulative abnormal return for firm i for event days 0 through n.

[33] On event day 5 (December 1, 2008), a day in which there was a large market decline, the NBER officially declared a recession, Ben Bernanke warned of a protracted downturn, Henry Paulson announced the need to further tap bailout funds, and large banks announced layoffs.

AR_{it} is calculated as

$$AR_{it} = R_{it} - [\hat{\alpha}_i + \hat{\beta}_i R_{mt}],$$

where AR_{it} is the abnormal return for firm i on event day t, R_{it} is the actual return on firm i for event day t, and R_{mt} is the return on the market for event day t, with the market return represented by the return on the S&P 500 index. The parameters $\hat{\alpha}_i$ and $\hat{\beta}_i$ are estimated from the following equation:

$$R_{it} = \alpha_i + \beta_i R_{mt} + \varepsilon_{it},$$

on a pre-event period of 250 trading days ending 30 days prior to event day 0. Although the choice of estimation period length is subjective, a length of 250 days corresponds to roughly one year of trading and is a length that has been used in other studies such as Jayachandran (2006) and Li and Lie (2006). The cumulative abnormal returns show the actual returns of each firm less the predicted returns of each firm based on that firm's performance relative to the market over the estimation period.

Panel B of Table 2 compares cumulative abnormal returns between connected firms and non-connected firms in the base sample for event days 0 through 10. In contrast to the actual returns reported in Panel A, no significant difference is reported between CARs of connected firms and non-connected firms for the one hour of event day 0. Beginning on event day 1, the differences in CARs between connected firms and non-connected firms are relatively large, though also not statistically significant. Significant differences in CARs increase on subsequent event days. The final row of Panel B shows that using the schedule measure, $CAR[0, 10]$ for connected firms is higher than $CAR[0, 10]$ for non-connected firms by 15.7 percentage points. The corresponding differences for the other measures are 15.8 percentage points and 11.0 percentage points, and in all cases the difference between the CARs is significant at the 5% level or higher. Panels C and D of Table 2 repeat the analysis of Panels A and B, but for the full sample. The results are fairly similar to those reported for the base sample.

In summary, Table 2 shows strong performance of connected firms relative to non-connected firms in response to Geithner's nomination as Treasury Secretary, with higher returns for connected firms in the range of 40 percentage points for actual returns and in the range of 15 percentage points for abnormal returns over event days 0 through 10. In the tests that follow, we assess whether these results hold when controlling for other firm characteristics in a multivariate setting.

4.2 OLS Regression Results

To control for additional characteristics of the sample firms, we test the relation between connections to Geithner and cumulative abnormal returns in a regression framework. We estimate the following equation:

$$CAR_i = \alpha + \beta x_i + \mathbf{z}_i'\boldsymbol{\phi} + \varepsilon_i, \tag{1}$$

where CAR_i is either $CAR[0]$, $CAR[0,1]$, or $CAR[0,10]$ for firm i, x_i is a measure of connections for firm i, and $\mathbf{z}_i$ is a set of firm-level covariates for firm i (such as firm size, profitability, and leverage).

The firm-level covariates are included to control for other basic firm characteristics that could have some effect on the observed relationship between connectedness and returns. A common practice in regressions of this type in previous literature is to not control for firm-level characteristics (see, e.g., Fisman (2001), Jayachandran (2006), Fisman et al. (2006)), although Johnson and Mitton (2003) control for firm size and leverage, and Jayachandran (2006) controls for firm size in robustness checks. Nevertheless, results from such regressions can be confounded by the differential effects of events following Geithner's nomination on firms with different characteristics. For this reason, in the regressions that follow we control for a range of firm-level characteristics (and as a further step in this direction, we will also report results from a synthetic matching estimation). In particular, firm size is included as a control because if Geithner had more interaction with larger firms (Panel B of Table 1 indicates that this is the case), then the observed performance of Geithner-connected firms could be due to their size rather than to their connections. Profitability is also an important control because it is an indicator of how hard each firm had been hit by the crisis, and it is possible that the firms that had been hit the hardest had the most to gain from Geithner's appointment. Finally, leverage is included as an additional indicator of the vulnerability of each firm during the crisis.

Similar considerations suggest that there might be other factors causing correlation of error terms (residual returns) across firms. Unadjusted OLS standard errors would be biased in this case. To adjust for this possibility, we estimate adjusted standard errors that account for potential cross-firm correlation of residual returns. We estimate the covariance matrix of returns using pre-event return data on a window of 250 trading days ending 30 days prior to event day 0. This estimated covariance matrix is then used to calculate our standard

errors, under the assumption that the pre-event covariance matrix is an appropriate estimate of the covariance matrix during the event. These adjusted standard errors should account for observed cross-sectional correlation of returns between firms in our sample (see Greenwood (2005); Becker, Bergstresser, and Subramanian (2012)). We use these adjusted standard errors throughout the paper unless otherwise noted.

Table 3 reports results of the estimation of equation (1). The adjusted standard errors are reported below coefficients in parentheses. The three measures of Geithner connections (schedule, personal, and New York) are tested in turn. Although there is no established standard in the literature for the appropriate length of the event window, we follow the practice of reporting results for shorter event windows ($CAR[0]$ and $CAR[0,1]$) and a longer event window ($CAR[0,10]$) for comparison. The first three columns of the table report results on the full sample with $CAR[0]$ as the dependent variable (correlation with Citigroup occurs after the first trading day and is thus not a concern when we use $CAR[0]$). In Column 1 the coefficient on schedule connections is 0.0025, which is not particularly large economically (it represents an abnormal return of under 0.3% for each additional connection), but it is statistically significant at the 10% level. The coefficient for personal connections is not statistically significant, and the coefficient on New York connections is significant at the 10% level and indicates that firms with New York connections had abnormal returns of 1.4% during the last hour of trading on November 21.[34]

Columns 4 through 6 of Table 3 report results for $CAR[0,1]$ focusing on our base sample.[35] The coefficients on schedule connections and personal connections are both positive and significant at the 1% level. The magnitude of the coefficient on schedule connections indicates that each additional interaction between Geithner and a firm during his tenure at the New York Fed is associated with an abnormal return of 1.4% for event days 0 and 1. Likewise, the coefficient on personal connections indicates an abnormal return of 5.5% for each additional personal connection between Geithner and the firm. The coefficient on New York connections is not statistically significant.

The last three columns of Table 3 report results for the estimation of equation (1) with

[34] Given that the day 0 returns occurred prior to the Citigroup bailout announcement, we do not report results for the base sample for $CAR[0]$, but for reference the corresponding coefficients in the base sample are generally positive and statistically insignificant.

[35] To save space, we do not report results for the full sample for $CAR[0,1]$ and $CAR[0,10]$, but for reference the corresponding coefficients in the full sample are generally stronger than those reported for the base sample.

$CAR[0, 10]$ as the dependent variable. In these three columns the coefficient on Geithner connections is positive and significant at the 10%, 1% and 1% level respectively. In contrast to the results for $CAR[0, 1]$, here the coefficients on New York connections are also significant, with the coefficient in Column 9 indicating that firms headquartered in New York City had abnormal returns of 10.2% relative to non-New York firms. In summary, Table 3 reports economically large and statistically significant cumulative abnormal returns for Geithner-connected firms following the announcement of his nomination as Treasury Secretary, particularly for longer event windows.

4.2.1 Robustness Checks for OLS Results

We perform additional tests to assess the robustness of our baseline results reported in Table 3, and these are presented in Table 4. In this table and in other tables that follow, we suppress reporting of the coefficients of control variables for brevity, although we always include the control variables (size, profitability, and leverage) in all specifications. Also in the interest of brevity we do not report results for New York connections.

We first address the question of whether Geithner-connected firms performed well after the announcement of his nomination because of their personal connections to Geithner or because they were firms that had the most to gain from a rebound precipitated by Geithner's appointment. To address this question, we first posit that firms that had the greatest potential for rebound were those that had the greatest declines in the aftermath of the collapse of Lehman Brothers on September 15, 2008. For each firm we calculate the cumulative abnormal return beginning on the day of Lehman's collapse (a Monday) through the end of the trading week (Friday). We use this $CAR[0, 4]$ as a proxy for each firm's vulnerability to the crisis and potential for rebound. As a second variable to control for crisis vulnerability, we control for whether the firm is a deposit-taking institution, as deposit-taking institutions may have differed in vulnerability to the crisis from other financial firms. Using Worldscope data, we create a dummy variable equal to one for firms that have a ratio of deposits to total assets greater than zero. Finally we also control for whether firms had already received TARP funding prior to the announcement of Geithner's nomination, which can act as another proxy for the systemic importance of a firm. Columns 1 and 2 of Table 4 report results controlling for all three of these proxies for crisis vulnerability (coefficients not reported). Columns 1 and 2 show that the results are similar to our baseline results when controlling for crisis vulnerability, except

that the results for $CAR[0, 10]$ are somewhat weaker (Panel C).

As another robustness check we recalculate abnormal returns using an estimation window that is focused on the turbulent period surrounding Lehman's collapse. Our intent is to have our measure of expected returns be based on β's that reflect the response of each firm to market movements during this particular period. We calculate abnormal returns as described above, except that the estimation period begins two weeks prior to the Lehman collapse (Monday, September 1, 2008) and ends three weeks after the Lehman collapse (Friday, October 3, 2008), when Congress ultimately approved EESA (which included TARP). Results using this measure of abnormal returns are reported in Columns 3 and 4. The results show that the coefficients on Geithner connections are significant across all three panels in this specification and are all larger in magnitude than the coefficients in our baseline results.

Although we control for firm size throughout our analysis, in Columns 5 and 6 we take another approach to controlling for size by limiting the sample to only the top size decile of sample firms, thereby creating a subsample that is more homogenous in terms of size. With one exception, the results are statistically significant across all three panels in this small subsample. In Columns 7 and 8 we exclude firms that the administration deemed to be of systemic importance, in that they were later included in the government-administered stress tests. The firms that the government included in the stress tests (i.e., the Supervisory Capital Assessment Program, SCAP) are those viewed as systemically important by the administration and thus may have been more likely to have benefited from bailouts similar to the one given to Citigroup or other policies.[36] These estimates are significant when we look at the longer-term CARs but not for $CAR[0]$.

In Columns 9 and 10 of Table 4 we check for the influence of outliers by excluding firms with extreme CARs, defined as those larger than the 99th percentile or smaller than the 1st percentile. Panel A shows that these results are not significant for $CAR[0]$, but in the other two panels the results are robust. In Columns 11 and 12 we add controls for a quartic in firm size. The motivation for this control is to assess if results are driven especially by very large firms. For completeness, we also include higher-degree powers of profitability and leverage up to the quartic. The results in Columns 11 and 12 show that the coefficients are statistically

[36] This excludes the following 17 firms from our sample: American Express, Bank of America, BB&T, Bank of New York Mellon, Capital One, Citigroup, Fifth Third Bank, Goldman Sachs, J.P. Morgan Chase, Key Corp., Morgan Stanley, PNC Financial Services, Regions Financial, State Street, SunTrust, U.S. Bancorp, and Wells Fargo. The two other SCAP participants, GMAC and MetLife, are not part of our sample.

significant in all six cases.

As an additional robustness test, we consider whether the results for the schedule measure of connections are robust when we calculate the number of connections using only Geithner's appointments from the year 2007. By 2008, the initial stages of the crisis were underway, so Geithner may have had an increased number of meetings during this time with firms affected by the crisis. Using only 2007 appointments as the schedule measure of connections puts the focus on pre-crisis relationships. The results using the 2007 measure are reported in Column 13. The coefficient on schedule connections is significant in two of the three panels, and in all three panels, the magnitude of the Geithner effect is larger than the comparable coefficient in the baseline regressions.

To summarize the results of the robustness checks in Table 4, the coefficients on Geithner connections are always positive across the different specifications. The coefficients generally retain statistical significance, although there are some exceptions. The magnitudes of the coefficients vary but are often larger than those reported in the corresponding baseline results in Table 3. Taken as a whole, Table 4 shows that the positive relation between Geithner connections and abnormal returns surrounding his nomination announcement is a fairly robust result.[37]

4.3 Synthetic Matching Methodology

The results presented so far – and most event studies of this type – implicitly assume that the differences between the test group (in this case, Geithner-connected firms) and the control group (in this case, non-connected firms) can be captured by a combination of the excess return adjustment and the covariates included in the regression model. But connected and non-connected firms may be different in other ways, which might be, at least partially, responsible for our results.

To further address these concerns, we turn to the method of synthetic matching developed in Abadie and Gardeazabal (2003) and Abadie, Diamond, and Hainmueller (2009). The main idea of this method is to construct a synthetic match for each firm in the treatment group (i.e.,

[37] In an unreported test, we examine the connections of Henry Paulson, the previous Treasury Secretary, applying the same method of identifying personal connections. His only identifiable connection on muckety.com is with Goldman Sachs. On the day of Paulson's announcement (May 30, 2006), Goldman Sachs stock fell by 2.0% (the S&P 500 fell by 1.6% that day), and in the 10 days following the announcement, Goldman fell by 5.2% (the S&P fell by 3.3%). Clearly this is only one observation, but Paulson's appointment (during an economic boom) did not appear to have a positive effect on his connections, consistent with the idea that connections matter more during crisis periods.

firms connected to Geithner) by using the firms in the control group in such a way that the synthetic firm has similar behavior to the actual firm before the event of interest. The effect of the event can be measured as a function of the difference between the behavior of the firm and its synthetic match after the event. Abadie, Diamond, and Hainmueller (2009) show that a primary reason to use this method is to control for the effect of unobservable factors that have an effect on the common time trend of samples in the treatment and control groups.

Most previous papers employ synthetic matching for the case of one entity in the treatment group and one intervention. Since our sample includes many connected firms we extend this method for the case of many firms in the treatment group. Inference is based on confidence intervals we construct from the distribution of the "Geithner effect" for "placebo treatment" groups before Geithner's nomination as we explain below.[38]

More formally, our synthetic matching procedure is as follows. First, we divide the firms into treatment and control groups according to our measures of connection to Geithner. Then we construct a synthetic match for each firm in the treatment group by solving the following optimization problem:

$$\forall i \in treatment\ group, \{w_j^{i*}\}_{j \in Control\ Group} = \underset{\{w_j^i\}_{j \in Control\ Group}}{\arg\min} \sum_{t \in Estimation\ Window} [R_{it} - \sum_{j \in Control\ Group} w_j^i R_{jt}]^2$$

$$s.t. \sum_{j \in Control\ Group} w_j^i = 1 \quad \text{and} \quad \forall j \in Control\ Group, \forall i \in Treatment\ Group \quad w_j^i \geq 0$$

where R_{it} is the daily return on date t and w_j^i is the weight of control firm j employed in the optimal weighting for firm i. It is important that the estimation window not include the period of intervention and it is typically selected as some period prior to the intervention. As before, we use 250 trading days ending 30 days prior to the Geithner nomination announcement as our estimation window.[39] Imposing the two criteria ($\sum_j w_j^i = 1$, $w_j^i \geq 0$) means the return for firms in the treatment group belong to convex combinations of returns for firms in the control group.

After finding the optimal weights through iteration for each firm in the treatment group,

[38] These intervals are constructed for testing the hypothesis of whether the effect of Geithner connections is zero or not (and are thus not standard confidence intervals).

[39] We find that the main results are robust to using other estimation windows. The results are somewhat stronger when we use estimation windows closer to Geithner's nomination starting from September 2008.

the return for the synthetic firm is constructed by:

$$\widehat{R_{it}} = \sum_{j \in Control\ Group} w_j^i R_{jt} \quad ,$$

and the abnormal return is computed as the difference between the actual return and the synthetic firm return ($\widehat{R_{it}}$).

To estimate the effect of intervention, we compute

$$\widehat{\phi}(\tau, k) = \frac{\sum_{i \in Treatment\ Group} \frac{\sum_{t=0}^{k} R_{it} - \widehat{R_{it}}}{\widehat{\sigma_i}}}{\sum_{i \in Treatment\ Group} \frac{1}{\widehat{\sigma_i}}},$$

where

$$\widehat{\sigma_i} = \sqrt{\frac{\sum_{t \in Estimation\ Window} [R_{it} - \widehat{R_{it}}]^2}{T}}.$$

In the above formula, $\widehat{\phi}(\tau, k)$ is the effect of intervention at date τ when we are computing this effect using cumulative abnormal returns of dates $[\tau, \tau + k]$, $\widehat{\sigma_i}$ is a measure of goodness of the match in the estimation window, and T is the length of the estimation window. Note that this formula for the average effect of intervention on the treatment group is a weighted average formula which gives more weight to better matches. This is because the difference between actual returns and synthetic firm returns should contain more information about the intervention when we are better able to predict the return of the firms during the estimation window.

To construct the confidence intervals, we randomly draw 1000 placebo treatment groups from the control group – with each group having the same size as the real treatment group. We compute the Geithner-connection effect for these placebo treatment groups on non-event days, and construct the confidence intervals for hypothesis testing of whether the coefficient is significantly different from zero. The effect of Geithner connections is significant at 5% if it does not belong to the interval that contains the [2.5, 97.5] percentiles of the effect of the Geithner connection for placebo treatment groups.[40]

[40] In the synthetic matching approach it is theoretically possible to use another approach to address the confounding effect of the Citigroup bailout. This could be based on using a convex combination of firms in the control group to replicate the effects of Citigroup bailout for treatment group firms. For transparency and simplicity, we continue to focus on the base sample (which excludes the top 10% of Citigroup-correlated firms) in our tests.

Table 5 presents the results from the synthetic matching estimation. Because synthetic matching requires a dichotomous definition of the treatment group and control group, we also looked at two additional definitions of connections: "highly connected" firms which are defined as those with more than two identified meetings with Geithner, and "mildly connected" firms which are those with one or two identified meetings.

Panel A of Table 5 presents results for $CAR[0]$, and Columns 1 through 3 present results for all Geithner connections (highly and mildly connected). Column 1 reports standard OLS results, which differ from those presented in Tables 3 and 4 for two reasons. First, in order to be comparable to the synthetic matching results, the connections variable is a dummy (equal to one for firms with any number of connections). Second, the significance of OLS coefficients is provided as a reference point to the synthetic matching results, and thus is determined using typical OLS standard errors – whereas in Tables 3 and 4 the standard errors are adjusted for pre-event correlations between firms. The OLS regressions control for size, profitability, and leverage as before. Column 1 shows that Geithner connections are associated with an abnormal return of 1.6% for the one-hour return on day 0, and that this coefficient is significant at the 5% level. Below the coefficient we report the number of significant coefficients obtained at each significance level when we test the effect of Geithner connections on 100 trading days between October 31, 2008, and April 7, 2009, excluding key event dates. The number of significant coefficients on non-event days is indicative of the drawback of using unadjusted OLS standard errors in that the Geithner connections coefficient is significant more often than would be expected.

Column 2 presents the synthetic matching results as outlined above. The coefficient on Geithner connections is smaller than in the OLS results, and is not found to be statistically significant. The number of significant coefficients shows that in the non-event-day tests, the Geithner connections coefficient is significant with a frequency that is much closer to what would be expected in theory. This makes us more confident that in the synthetic matching method we are isolating the true effect of Geithner connections rather than the effect of some other correlation among Geithner-connected firms (which would have led to more frequent rejections on non-event days).

Column 3 presents "corrected" synthetic matching results in which for our inference procedure we eliminate firms for which we do not have a good synthetic match, defined as the firms in the control group with $\widehat{\sigma}$ more than $\sqrt{3}$ times the average $\widehat{\sigma}$ for the real treatment group

firms.[41] Although the formula used in the synthetic matching method already gives greater weight to firms with better matches, we present the corrected results as a robustness check to ensure that our confidence intervals are appropriate. The corrected results are similar to the uncorrected results in Column 2. Columns 4 through 6 present a similar set of results for the "highly connected" indicator, and Columns 7 through 9 for the "mildly connected" indicator. As would be expected, the results are stronger for highly connected firms. Overall, Panel A suggests that the effect of Geithner connections on the one-hour day 0 returns is positive but not statistically significant once the synthetic matching adjustments are made.

Panel B of Table 5 repeats the tests of Panel A but for $CAR[0, 1]$. These tests show a much stronger effect of Geithner connections, even in the synthetic matching results. Column 2 shows that Geithner connections are associated with an abnormal return of 5.9%, which, though smaller than the OLS estimate, is still economically significant and statistically significant at the 1% level. As expected, the results are even stronger for highly connected firms relative to mildly connected firms.

Finally, Panel C repeats the results for $CAR[0, 10]$. The coefficients in columns 2 and 3 indicate a 12.4% abnormal return associated with Geithner connections. Once again the matching estimate for highly connected firms is larger than for mildly connected firms, although the coefficient is significant for highly connected firms only with the corrected estimates.[42] Taken as a whole, Panels B and C suggest that the synthetic matching methodology confirms the presence of a positive and significant effect of Geithner connections at horizons longer than the one-hour day 0 returns.

4.3.1 Robustness Checks for Synthetic Matching

Table 6 presents robustness checks for the synthetic matching results, focusing on $CAR[0, 1]$. In Panel A, we use the financial crisis estimation window (September 1, 2008 to October 3, 2008) as reported above in the OLS robustness checks. The main results are similar to those presented in Panel B of Table 5. The primary difference is that the effect is stronger for highly connected firms while it is no longer significant for mildly connected firms. Panel B uses the personal measure of connections. In these regressions the coefficient on Geithner connections is significant at standard levels in all cases, except for mildly connected firms.

[41] Our results are not sensitive to different cutoffs.

[42] In Panel C, the Geithner connections coefficient tends to have more significant coefficients in the non-event-day tests, relative to the shorter-horizon CARs.

In Panel C, we use the New York measure of connections to Geithner. Again the results show the estimated Geithner connection coefficient is statistically significant, although the size of the coefficient is smaller than with the other measures. This could be due to attenuation bias since having headquarters in New York is a noisier measure of connections to Geithner. In Panel D we use just information from Geithner's 2007 schedule to create the connections variable (as done in the OLS robustness checks) and find that the synthetic matching results are robust to this change.

Table 7 provides an additional robustness check to determine whether the positive response of Geithner-connected firms is due to mean reversion of returns prior to the nomination announcement, perhaps due to a Citigroup downturn prior to its bailout. We test whether Geithner connections were significant in the days before the announcement using, in turn, $CAR[-1, 0]$ in Panel A, $CAR[-5, 0]$ in Panel B, and $CAR[-10, 0]$ in Panel C. In Columns 1 through 3 of Table 7 we present results for schedule connections. These columns show that there is a negative trend for Geithner-connected firms prior to the announcement, but none of the estimates is statistically significant. In Columns 4 and 5 we present results comparable to Column 1, but for personal and New York connections. Again, the pre-trend is negative, but not statistically significant except for $CAR[-10, 0]$ for New York connections.

Figures 1 and 2 show the pre-trends graphically. Figure 1 shows the Geithner connection coefficient for 20 trading days prior to the nomination announcement as well as confidence intervals for hypothesis testing for cumulative abnormal returns of days $[x, x + 1]$ for the base sample. Figure 1 shows that the nomination event stands out as the most significant event during the period. Figure 2 is the same as Figure 1 except that it is for highly connected firms in the base sample. Figure 2 shows no pre-trend after exclusion of Citigroup-correlated firms since the Geithner connection coefficient lies inside confidence intervals before the nomination. These results suggest that the positive reaction of Geithner-connected firms to the nomination announcement was not just a reversal of previous trends.

4.4 CDS Spreads

If the market perceived that benefits would accrue to Geithner-connected firms from his appointment as Treasury Secretary, then the news of his nomination should have impacted not just stock returns of connected firms but also the probability of default for connected firms – as reflected in their Credit Default Swap (CDS) spreads. Specifically, if market partici-

pants expected that Geithner could protect connected firms from bankruptcy or other trigger events, then one would expect CDS spreads on the debt of connected firms to fall relative to nonconnected firms upon the Geithner nomination announcement.

Because data on CDS spreads are available for relatively few firms, we view CDS spreads as a secondary measure of firm performance. We obtain CDS data from the data provider Markit for every firm in the full sample for which Markit has data available. After eliminating three firms which have missing control variables, we have a sample of 27 firms for our CDS tests. Each firm has multiple CDS listings for various maturities and contract specifications. For our tests we use CDS contracts of five-year maturities (the most common tenor) on senior unsecured debt (the most common priority level) with modified restructuring provisions (the most common provision). Summary statistics for CDS spreads are reported in row 10 of Table 1. At the time of the Geithner nomination announcement, the average spread among sample firms was 465 basis points, while the median spread was 233 basis points.

Table 8 reports estimations of equation (1) in which the dependent variable is the percentage change in the CDS spread rather than the CAR in stock prices. (Summary statistics for CDS spread changes are reported in rows 11 and 12 of Table 1). Panel A reports OLS results, first for the percentage change in CDS spreads on day 1, and then for the percentage change in CDS spreads from day 1 to day 10. Results are not reported for day 0 because of the unavailability of intra-day quotes on CDS spreads. Included but not reported in the regressions are the same control variables from previous regressions. As in the CAR results, the standard errors in these regressions are adjusted for pre-event correlations between firms. Panel A shows that for all three measures of connections the coefficient on Geithner connections is negative whether Citigroup is included or not and for both return horizons. In the first three columns, the coefficient is statistically significant. The negative coefficient is as predicted, in that the Geithner nomination is associated with a reduction in the premium required for insurance on the debt of Geithner-connected firms. As an example of how to interpret the magnitude of these effects, the coefficient of -0.013 in column 1 indicates that each additional schedule connection is associated with a 1.3% drop in a firm's CDS spread on day 1. For an average-spread firm with, say, 5 schedule connections, this would indicate a fall of about 33 basis points.

Panel B of Table 8 reports synthetic matching results. Again the coefficient on Geithner connections is negative in all cases, and the coefficients are statistically significant in all but two cases. In some specifications the estimated effects are particularly large. For example, in

Column 9, the coefficient of -0.213 indicates that New York connections are associated with a 21.3% drop in a firm's CDS spread from day 1 to day 10 (about 107 basis points for an average-spread firm). In short, the results in Table 8 are complementary to the results for stock returns and are broadly supportive of the hypothesis that the market expected benefits for Geithner-connected firms when the Geithner nomination was announced.

5 Reactions of Firms Linked to Other Candidates

The previous section documents the positive reaction of Geithner-connected firms to the announcement of Geithner's nomination as Treasury Secretary. We also study the reaction of firms linked to other leading candidates for the position. This is particularly useful as a falsification exercise. If some unobservable characteristic makes firms both more likely to be connected to Geithner and also more likely to perform well during our event window, then we might expect the same characteristic to lead to greater connections to other candidates. If connections to other candidates also matter during the event window, this would be a rejection of our identifying assumption. Our results in this section do not indicate such a pattern and are thus reassuring.

After Geithner, the next leading candidates in the week prior to the announcement were Lawrence Summers, Jon Corzine, Paul Volcker, and Sheila Bair. We follow the procedure discussed above, using data from Muckety, for determining Geithner personal connections to find personal connections to firms for Summers, Corzine, Volcker, and Bair. We list the firms connected to the other candidates and the nature of those connections in Appendix Table A2.

In principle, we might expect to see a negative reaction of Summers-connected firms in contrast to the positive reaction of Geithner-connected firms when Geithner's nomination was announced. In practice, however, this prediction is clouded by two factors. First, because Geithner and Summers themselves are closely connected, and because they have interacted with people in similar circles, there is a great deal of overlap between Geithner connections and Summers connections. The correlation between Geithner personal connections and Summers personal connections is 0.92. Second, the day of Geithner's official announcement as Treasury Secretary did not bring all bad news for Summers, because Barack Obama announced Summers as his choice as director of the National Economic Council on the same day. It is likely that Summers would still have been expected to have major influence over economic decisions.

We conduct regressions to test the effect of connections to all candidates on cumulative abnormal returns following the Geithner announcement.[43] We employ the full sample in these tests in order to retain a reasonable number of connections to the other candidates (although we continue to exclude Citigroup from the regressions). Results of these tests are reported in Table 9. The first five columns report results with $CAR[0,1]$ as the dependent variable. For purposes of comparison, Column 1 reports coefficients for Geithner connections alone. Column 2 reports the result with the measure of Summers connections included. The coefficient on Summers connections is smaller than the Geithner coefficient and is not significant, whereas the coefficient on Geithner connections remains significant at the 1% level. In Columns 3 through 5 we run a similar regression but test Corzine, Volcker, and Bair connections in turn. The coefficient on connections for Corzine is positive and slightly larger in magnitude than the coefficient on Geithner connections, suggesting some positive effect of the announcement on firms connected to Corzine. The coefficient is negative for the other two candidates, and in all cases, the coefficient on Geithner connections remains positive and significant.

In the final four columns of Table 9 we repeat the same regressions but with the percentage change in CDS spreads as the dependent variable. The coefficient on Geithner connections is negative and significant in all cases, again indicating that the market expected benefits for Geithner-connected firms. The coefficients are positive for the alternative candidates. (Bair has no connections to firms in the CDS sample.) Overall, Table 9 shows that the strong reactions for Geithner-connected firms were not matched by firms connected to other candidates.

6 Geithner's Tax Problems

A secondary event related to Geithner's nomination as Treasury Secretary allows us to further test the relation between Geithner connections and firm value. On Tuesday, January 13, 2009, the Senate Finance Committee publicly disclosed that Geithner had failed to pay over $34,000 in taxes while an employee of the International Monetary Fund. This disclosure cast doubt on whether Geithner would be confirmed by the Senate. If the market expected Geithner-connected firms to derive value from his position as Treasury Secretary, then this event should have been associated with negative stock returns for Geithner-connected firms relative to non-connected firms.

[43] The synthetic matching approach cannot be used as there are multiple potential effects of this form.

Event day 0 is defined as January 14, 2009, given that the Senate Finance Committee announcement was made after the market closing on January 13, 2009. As for the end of the event period, it is impossible to determine exactly when it became clear to most market participants that Geithner would be confirmed, despite the tax issue. We examined all articles concerning Geithner and his taxes appearing in The Wall Street Journal, beginning on January 14. The first article to predict that Geithner would be confirmed appeared on Wednesday, January 21, or event day 4.[44] (The markets were closed on Monday, January 19 for Martin Luther King Day.)

Panel A of Table 10 compares actual returns between connected and non-connected firms for event days 0 through 4 for the base sample. In these tests we alter the base sample to also exclude the top 10% of firms based on return correlation with Bank of America, as this event occurred shortly after the Bank of America bailout was announced. Panel A shows that from event day 0 through event day 3, using the schedule measure of connections, connected firms underperformed non-connected firms by 7.9 percentage points, a difference that is significant at the 5% level. Results are weaker using the other measures of connections. Panel A also shows that the fortunes of connected firms reversed on event day 4, as connected firms outperformed non-connected firms on this day.

Panel B of Table 10 compares cumulative abnormal returns between connected firms and non-connected firms for event days 0 through 4. Cumulative abnormal returns are again calculated as described above. Again in Panel B the returns are negative for the schedule measure and the personal measure though the differences are not significant. For the New York measure, the CAR is only negative on day 0. Panels C and D of Table 10 repeat the results for the full sample, and the results tend to be stronger in this sample. Panels C and D both show a pattern of negative and significant returns through day 3 that tend to reverse on day 4. The pattern of returns demonstrated in Table 10 is supportive of the hypothesis that Geithner's tax problems created a negative shock to Geithner connections, and that concern over the news dissipated after a few days, particularly on event day 4.

We also estimate the effect of Geithner connections during his tax problems in a regression framework. Table 11 reports results of the estimation of equation (1) for the tax event. Panel A of Table 11 reports OLS estimates, and Panel B reports synthetic matching estimates. The

[44] Deborah Solomon, "The Inauguration: Tax Issue Won't Derail Geithner," The Wall Street Journal, January 21, 2009, p. A3, available at http://online.wsj.com/article/SB123249640035200279.html.

first six columns of the table report results with $CAR[0,1]$ as the dependent variable, and the last six columns report results with with $CAR[0,3]$ as the dependent variable. Table 11 shows that Geithner connections tend to be associated with negative returns when Geithner's tax problems were disclosed, though these estimates are less precise than our main results. In Panel A, the results are mixed, and only Columns 4 and 10 report a significant negative coefficient on Geithner Connections. In Panel B, the results are also mixed, but more negative and significant returns are reported. Overall, although the regression results are fairly weak, Tables 10 and 11 together are consistent with the hypothesis that connections to Geithner were a source of value for connected firms. The relatively weak results may just be due to market participants correctly anticipating that these tax issues would not derail Geithner's nomination.

7 After the Announcement

The results above imply that market participants, in aggregate, expected a Geithner Treasury to benefit financial institutions that had connections to the incoming Secretary. Even without specifying a precise channel of influence, the finding that people, via the markets, thought that connections to the incoming Treasury Secretary would pay off in financial terms is itself noteworthy.

There is a further question that still deserves consideration, however: whether the expectations revealed by this event study were subsequently borne out. It is possible that those expectations were mistaken, in which case this is a story in which markets do not provide additional information about the future. Alternatively, it is possible that Secretary Geithner did go on to take actions that benefited certain segments of the financial sector over others and that the "winners" were more likely than not to be those firms with which he had preexisting connections.

Unfortunately, this question does not lend itself to a definitive answer. First, it is not always clear who are the winners and losers in particular policy decisions. Second, even when the beneficiaries can be tentatively identified, they will rarely be strictly limited to firms with prior connections to Geithner. For illustration, assume that Citigroup was able to use its superior connections to gain preferential access and nudge the Treasury Department toward a policy that favored its interests. Such a policy would be likely to also benefit other financial institutions to

the extent that they are similar to Citigroup, regardless of their place in Geithner's network. At most, then, we can assess Treasury Department policies to see whether they favored the kinds of institutions with which Geithner had the most contact in the years prior to his nomination. If so, then the abnormal returns enjoyed by connected firms might have foreshadowed the direction of future policy.

7.1 Hiring

Geithner hired a number of key people from prominent Wall Street firms, including from those with which he had a strong connection. Mark Patterson, a former Goldman Sachs lobbyist, became his chief of staff. Lee Sachs, previously with Bear Stearns and Mariner Investment Group, became a senior adviser to Geithner with responsibility for helping to design financial sector policies. Herb Allison, who was brought in to run TARP as assistant secretary, was formerly a senior executive at Merrill Lynch and TIAA-CREF. David Miller, a Goldman Sachs alumnus, became TARP's chief investment officer; as a member of the Paulson Treasury, he had been involved in the bailouts of late 2008 and early 2009.[45]

Not all of Geithner's staff came from Wall Street, however. For example, Neal Wolin, whose private sector experience was at The Hartford, an insurance company, became Deputy Treasury Secretary. However, Wolin had previously worked in the Rubin-Summers Treasury. Geithner hired people from within his personal network (and that of Robert Rubin).

7.2 From Nomination to Confirmation

Geithner's nomination was leaked to the press on November 21, 2008, but he was not confirmed by the Senate until January 26, 2009. In the interim, he undoubtedly had influence on policymaking within Treasury, both as president of the New York Fed and the likely incoming Treasury Secretary. This period was marked by two high-profile interventions: the bailout of Citigroup in late November and the bailout of Bank of America in January.

These bailouts represented major emergency subsidies from the Treasury Department. In each case, the bank received additional TARP capital, but the government also agreed to guarantee a pool of assets against declines in value. These guarantees were effectively a non-transparent and underpriced form of insurance (compared with what such guarantees would have cost in the free market).[46]

[45] http://dealbook.nytimes.com/2011/01/31/treasurys-warrior-at-the-negotiating-table/

[46] As a result, according to the TARP Congressional Oversight Panel, the Citigroup bailout contained an

While the Citigroup bailout (November 2008 edition) was always understood as a means of saving the bank, it was reported in January 2009 that the Bank of America bailout had been promised in exchange for the bank agreeing to complete its acquisition of Merrill Lynch, then the third-largest investment bank on Wall Street. In April 2009, an investigation by New York Attorney General Andrew Cuomo further revealed that then-Treasury Secretary Hank Paulson had threatened to replace Ken Lewis as CEO of Bank of America if he refused to complete the Merrill acquisition. These interventions clearly benefited Citigroup, which otherwise might have failed, and Merrill Lynch, which otherwise would almost certainly have failed. Whether they benefited Bank of America is another question that is difficult to answer. As losses mounted at Merrill in December 2008, it may have become rational for Bank of America to walk away from the planned acquisition; the subsidy provided by the government in the form of the January bailout may or may not have compensated it for those additional losses. The net effect was to pressure a North Carolina-based retail bank (with relatively small investment banking operations) to complete its acquisition of a New York-based investment bank.[47]

7.3 Rescue Programs Under Geithner

The Capital Assistance Program (CAP) was one mechanism for providing capital to banks that needed it. The terms of CAP were generally favorable to the recipients of capital, but it is not obvious whether the program was more or less favorable than the Capital Purchase Program that was created by Paulson in October 2008. Investments under the CAP were in convertible preferred stock, which has the potential to dilute existing bank shareholders. However, the conversion option was held by the bank, not by Treasury, essentially giving the bank a valuable option.[48]

At the same time, the CAP was coupled with bank stress tests that were conducted in March and April 2009 on nineteen major financial institutions. Of the nineteen institutions, ten were found to need additional capital. The complexity of individual bank balance sheets, and the process by which the test results were released, left significant room for firm-specific

implicit subsidy percentage of 50%, as compared to a subsidy of 22% in the TARP Capital Purchase Program. Congressional Oversight Panel, "February Oversight Report: Valuing Treasury's Acquisitions," February 6, 2009, p. 7.

[47] According to Bair (2012), Geithner went to bat repeatedly for Citigroup and its shareholders (see Bair (2012), Chapter 10).

[48] "Capital Assistance Program, Summary of Mandatorily Convertible Preferred Stock ('Convertible Preferred') Terms," Treasury Department fact sheet, February 25, 2009, available at http://www.ustreas.gov/press/releases/reports/tg40_captermsheet.pdf.

negotiation. At least Citigroup, Bank of America, PNC Financial, and Wells Fargo negotiated with the government over the final stress test results. According to The Wall Street Journal, "The Federal Reserve significantly scaled back the size of the capital hole facing some of the nation's biggest banks shortly before concluding its stress tests, following two weeks of intense bargaining."[49] This created latitude for regulators to take actions that might favor some banks over others.[50]

The Public-Private Investment Program (PPIP) delivered on the expectation that Geithner would revive Paulson's original plan to use government money to purchase banks' troubled assets. The PPIP offered non-recourse government loans and FDIC loan guarantees to private sector investors willing to acquire troubled assets. This plan effectively provided a subsidy to these investors in order to increase their willingness-to-pay for the assets and help close the gap that separated bids and asks in the open market. Therefore, the plan aimed to benefit banks holding large amounts of troubled assets, but it also benefited buy-side institutions such as hedge funds, private equity firms, and asset management firms that could participate in the program.

According to Neil Barofsky, then Special Inspector General for TARP, "PPIP had been designed by Wall Street, for Wall Street" – in particular, by BlackRock, the Trust Company of the West Group, and PIMCO.[51] Barofsky was particularly concerned by the opportunities PPIP created for fraud and money laundering.[52] This example shows the potential for well-connected financial institutions to influence government policy at key moments during the financial crisis.

Following Geithner's confirmation, Treasury engaged in fewer firm-specific interventions than in the November 2008-January 2009 period. The two big exceptions were the Citigroup bailout on February 27, 2009, and the AIG bailout on March 2, 2009.

In late February 2009, there were signs that Citigroup was facing another wholesale bank run, most evident in its declining stock price, the falling price of its subordinated bonds, and the

[49] David Enrich, Dan Fitzpatrick, and Marshall Eckblad, "Banks Won Concessions on Tests," The Wall Street Journal, May 9, 2009.

[50] For example, the decision to base capital requirements on Tier 1 common capital rather than tangible common equity affected different banks differently, arguably hurting Wells Fargo the most. Ibid.; Felix Salmon, "Chart of the Day: Common Capital vs. TCE," Reuters, May 9, 2009.

[51] Barofsky (2012), p.129.

[52] "We saw Geithner's Financial Stability Plan for what it was: an unprecedented trillion-dollar playground for fraud and self-dealing." Barofsky (2012), p. 132. In Barofsky's opinion, Geithner was dismissive of attempts to improve oversight and compliance of TARP programs. Ibid., p. 113.

rising price of credit default swap protection on its senior bonds. Geithner's initial proposal was to split Citigroup into a "good bank" and a "bad bank". According to Sheila Bair, this would have transferred all of the bank's losses to the FDIC, "without imposing any loss absorption on shareholders and bondholders" and letting "Citi's private stakeholders take all of the upside" (Bair (2012), p. 167). The government's eventual response was to engineer a preferred-for-common swap including both the Treasury Department and several large investors in Citigroup; however, many of the preferred shareholders and subordinated debt investors were not required to convert their investments into common stock.[53] The bank's common stock price fell on the news, so presumably the market was expecting an even more generous bailout.[54]

After a disastrous fourth quarter of 2008 that threatened AIG's viability as a going concern, the government improved the terms on its existing preferred stock, invested more cash in exchange for more preferred stock, and improved the terms on AIG's credit line.[55] By this point, AIG was largely owned by the U.S. government, so the bailout was not intended to benefit AIG's shareholders; instead, its goal was to keep AIG afloat in order to minimize collateral damage to other firms. Because it was still supposedly solvent, AIG was able to honor its commitments to its counterparties, largely credit default swap protection it had sold to other financial institutions – most notably (excluding European banks) Goldman Sachs, Merrill Lynch, Bank of America, Citigroup, Wachovia, Morgan Stanley, and JPMorgan Chase. Because AIG was able to make its counterparties whole, these banks – including, after the acquisitions of September-October 2008, the six largest banks – received more cash than they would have if AIG had failed.[56]

[53] "Transaction Outline," Treasury Department fact sheet, February 27, 2009, available at http://www.treas.gov/press/releases/reports/transaction_outline.pdf. According to Bair, Geithner resisted requiring any of Citigroup's private stakeholders to convert, against the wishes of the FDIC. Bair (2012), Chapter 15.

[54] Citigroup (along with GM and AIG) also benefited from "Notices" issued by the Treasury Department allowing the company to keep the tax benefits provided by its past net operating losses – a policy that has been contested by a number of commentators and legal scholars. See, for example, Ramseyer and Rasmussen (2011).

[55] "U.S. Treasury and Federal Reserve Board Announce Participation in AIG Restructuring Plan," Treasury Department press release, March 2, 2009.

[56] Goldman Sachs claimed that even if AIG had collapsed, its positions with AIG were fully hedged. Peter Edmonston, "Goldman Insists It Would Have Lost Little If A.I.G. Had Failed," The New York Times, March 20, 2009. Barofsky argues that AIG did not need to pay 100 cents on the dollar, but there was no serious attempt to negotiate a reduction in payments (Barofsky (2012), pp. 186-187.)

8 Conclusion

The announcement of Timothy Geithner as President-elect Obama's nominee for Treasury Secretary in November 2008 produced a cumulative abnormal return for financial firms with which he had a personal connection relative to other comparable, non-connected firms. This return, which was about 15 percent from day 0 through day 10, appears fairly robust. It is present using different measures of connections, with flexible controls for firm size and other characteristics, and using synthetic matching methodology. There were subsequently abnormal *negative* returns for connected firms when news broke that Geithner's confirmation might be derailed by tax issues, even though these returns are less precisely estimated.

In our view, these excess returns reflect the market's expectation that, during a period of turbulence and unusually high policy discretion, the new Treasury Secretary would need to rely on a core group of employees and a small social network for real-time advice, and that these employees were likely to be hired from financial institutions with which Geithner had connections. This is the "social connections meets the crisis" interpretation.

We lean towards this interpretation because our results cannot be explained by Geithner bringing a safe pair of hands to the management of the economy or by Geithner and his advisors solely favoring large, complex Wall Street firms at the expense of other financial institutions. This is because our results are derived from specifications that control flexibly for firm size. Put differently, they are derived from differences between connected and non-connected financial institutions of roughly the same size. Consistent with this interpretation, Geithner's Treasury employed key personnel from financial institutions with which he was connected, and some of the decisions of his department can be interpreted as being, at the margin, favorable to connected firms (at least for Citigroup, on which we have the best anecdotal data).

If our interpretation is correct, the benefit to connected firms is temporary – and very much related to the crisis atmosphere of November 2008. Once policy discretion declines and the speed with which important decisions have to be taken slows down, these connections should become less important. Whether this is the case remains an area for further research.

References

Abadie, A., and J. Gardeazabal, 2003. The economic costs of conflict: a case study of the Basque country. American Economic Review 93, 113-132.

Abadie, A., A. Diamond, and J. Hainmueller, 2010. Synthetic control methods for comparative case studies: estimating the effect of California's tobacco control program. Journal of the American Statistical Association, 105, 493-505.

Acemoglu, D. and J. Robinson, 2012. Why nations fail: the origins of power, prosperity, and poverty. Crown Business, New York.

Bair, S., 2012. Bull by the horns: fighting to save Main Street from Wall Street and Wall Street from itself. Free Press, New York.

Barofsky, N., 2012. Bailout: an inside account of how Washington abandoned Main Street while rescuing Wall Street. Free Press, New York.

Becker, B., G. Subramanian, and D. B. Bergstresser, 2012. Does shareholder proxy access improve firm value? Evidence from the Business Roundtable challenge. NBER Working Paper 17797, January, and Journal of Law & Economics (forthcoming).

Bertrand, M., M. Bombardini, and F. Trebbi, 2011. Is it whom you know or what you know? An empirical assessment of the lobbying process. NBER Working Paper 16765.

Bhagwati, J., 1998. The capital myth. Foreign Affairs, May.

Blanes-i-Vidal, J., M. Draca, C. Fons-Rosen, 2012. Revolving door lobbyists. American Economic Review, 102(7): 3731-48.

Campbell, J.Y., A.W. Lo, and A.C. MacKinlay, 1997. The econometrics of financial markets. Princeton University Press: Princeton, New Jersey.

Chiu, M.M., and S.W. Joh, 2004. Loans to distressed firms: political connections, related lending, business group affiliations, and bank governance. The Chinese University of Hong Kong working paper.

Connaughton, J., 2012. The payoff: why Wall Street always wins, Amazon e-book, 2012.

Dinç, I.S., 2005. Politicians and banks: political influences on government-owned banks in emerging countries. Journal of Financial Economics 77, 453-479.

Dube, A., E. Kaplan and S. Naidu, 2011. Coups, corporations, and classified information. Quarterly Journal of Economics, 126(3), 1375-1409.

Duchin, R. and D. Sosyura, 2012. The politics of government investment, Journal of Financial Economics 106, 24-48.

Faccio, M., 2006. Politically connected firms. American Economic Review 96, 369-386.

Faccio, M., R. Masulis, and J. McConnell, 2006. Political connections and government bailouts. Journal of Finance 61, 2597-2635.

Ferguson, T. and H.-J. Voth, 2008. Betting on Hitler – the value of political connections in Nazi Germany. Quarterly Journal of Economics 123, 101–137.

Fisman, R., 2001. Estimating the value of political connections. American Economic Review 91, 1095-1102.

Fisman, D., R. Fisman, J. Galef, and R. Khurana, 2006. Estimating the value of connections to Vice-President Cheney. Columbia University working paper.

Gomez, E. T. and Jomo K.S., 1997. Malaysia's political economy: politics, patronage and profits. Cambridge University Press, First Edition.

Gomez, E. T. and Jomo K.S., 1998. Malaysia's political economy: politics, patronage and profits. Cambridge University Press, Second Edition.

Greenwood, R., 2005. Short-and long-term demand curves for stocks: theory and evidence on the dynamics of arbitrage. Journal of Financial Economics 75, no. 3, 607-649.

Igan, D., P. Mishra, and T. Tressel, 2011. A fistful of dollars: lobbying and the financial crisis, NBER Macro Annual, Volume 26, 195-230.

Igan, D. and P. Mishra, 2012. Wall Street, Capitol Hill, and K Street, unpublished, August.

Jayachandran, S., 2006. The Jeffords effect. Journal of Law and Economics 49, 397-425.

Johnson, S. and J. Kwak, 2011. 13 bankers: the Wall Street takeover and the next financial meltdown, Vintage Books: New York.

Johnson, S. and T. Mitton, 2003. Cronyism and capital controls: evidence from Malaysia. Journal of Financial Economics 67, 351-382.

Jones, B.F. and B. Olken, 2005. Do leaders matter? National leadership and growth since World War II. Quarterly Journal of Economics 120, 835-864.

Khwaja, A. I. and A. Mian, 2005. Do lenders favor politically connected firms? Rent provision in an emerging economy. Quarterly Journal of Economics 120, 1371-1411.

Li, W., and E. Lie, 2006. Dividend changes and catering incentives. Journal of Financial Economics 80, 293-308.

Mian, A., A. Sufi, and F. Trebbi, 2010. The political economy of the U.S. mortgage default crisis, American Economic Review, 100(5), 1967-98.

Querubin, P. and J. M. Snyder, Jr., 2011. The control of politicians in normal times and

times of crisis: wealth accumulation by U.S. Congressmen, 1850-1880. NBER working paper 17634, December.

Ramseyer, J.M., and E. B. Rasmussen, 2011. Can the Treasury exempt its own Companies from tax? The $45 billion GM NOL carryforward. John M. Olin Center for Law, Economics, and Business Discussion Paper No. 690, Harvard Law School, April.

Roberts, B.E., 1990. A dead senator tells no lies: seniority and the distribution of federal benefits. American Journal of Political Science 34, 31-58.

Scheiber, N., 2011. The escape artists: how Obama's team fumbled the recovery. Simon & Schuster, New York.

Sorkin, A.R., 2009. Too big to fail: the inside story of how Wall Street and Washington fought to save the financial system from crisis – and themselves. Viking, New York.

Stigler, G., 1971. The theory of economic regulation. The Bell Journal of Economics and Management Science 2, 3-21.

Suskind, R., 2011. Confidence men: Wall Street, Washington, and the education of a president. Harper, New York.

Useem, M., 1984. The inner circle, Oxford University Press: Oxford.

Veronesi, P. and L. Zingales, 2010. Paulson's gift, Journal of Financial Economics 97(3), 339-368.

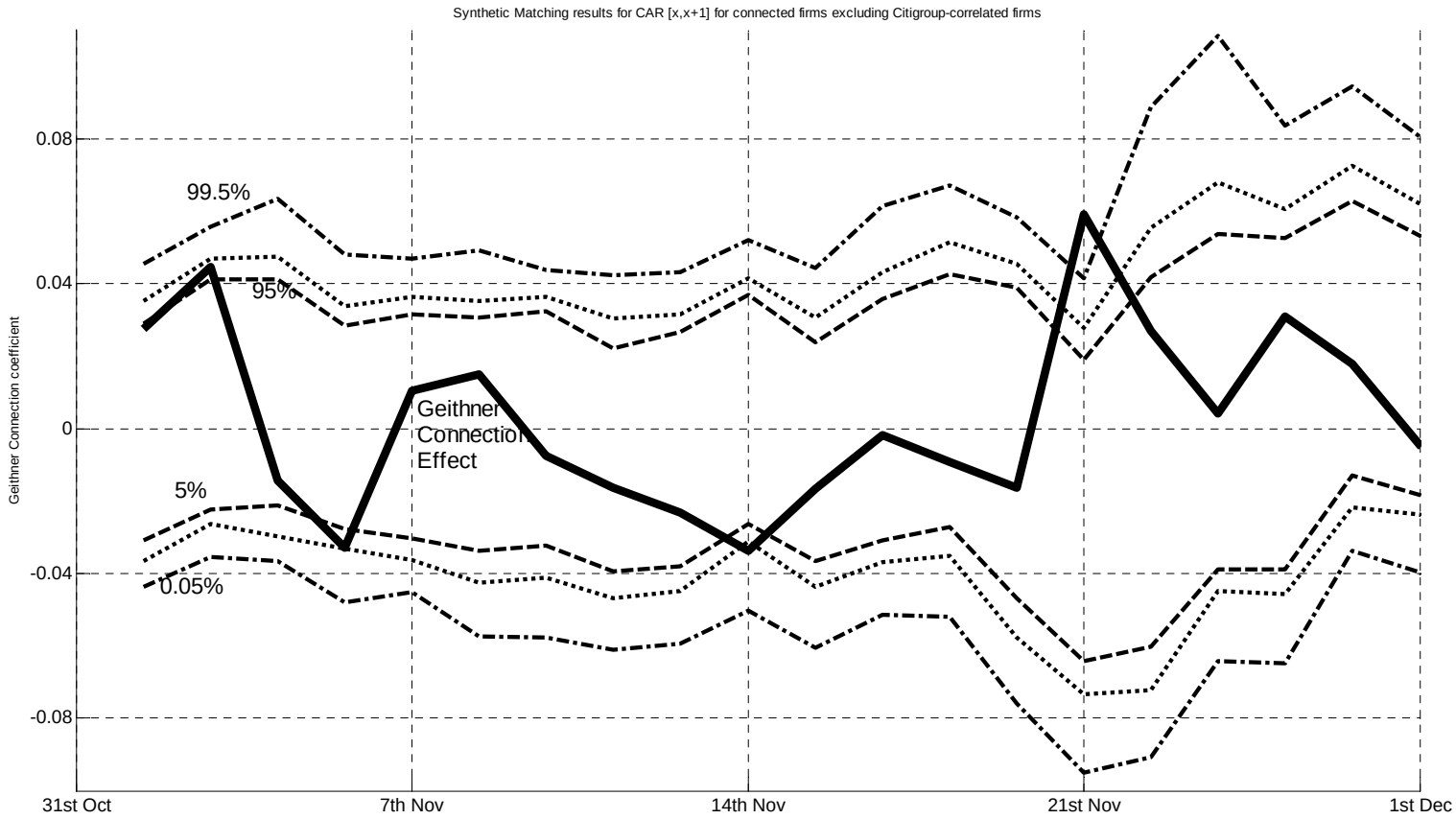

Fig. 1. Time-series plot for November 2008 of the coefficient on Geithner Connections for cumulative abnormal returns measured over the interval [x, x+1]. Citigroup-correlated firms are excluded. Confidence intervals at the 1%, 5%, and 10% levels are also presented. November 21, 2008 is the day of the Geithner nomination announcement.

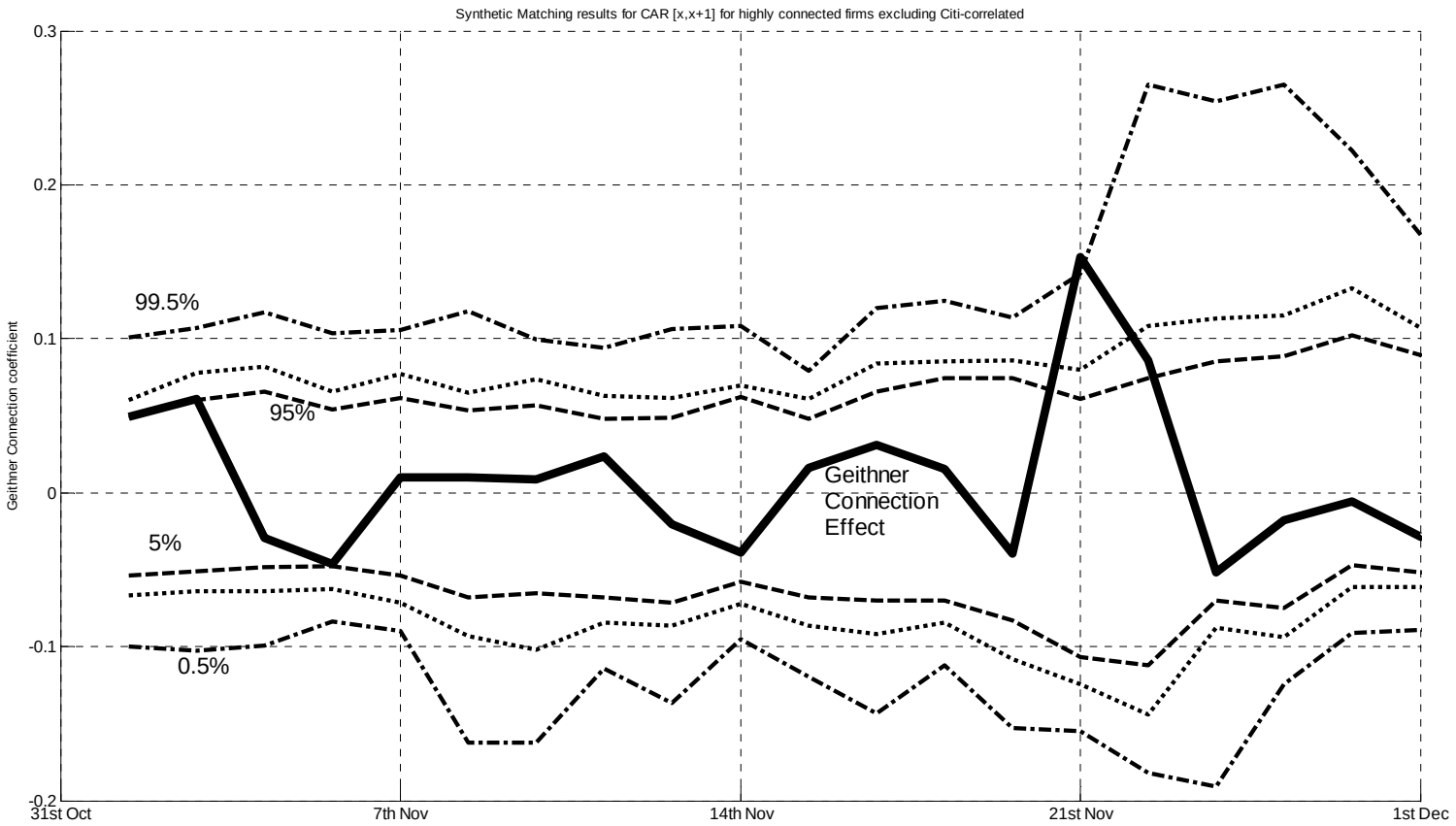

Fig. 2. Time-series plot for November 2008 of the coefficient on Geithner Connections for cumulative abnormal returns measured over the interval [x, x+1]. Only highly connected firms are included. Citigroup-correlated firms are excluded. Confidence intervals at the 1%, 5%, and 10% levels are also presented. November 21, 2008 is the day of the Geithner nomination announcement.

Table 1

Descriptive statistics

The table presents descriptive statistics of firm-level data used in subsequent tables. The sample includes firms listed on NYSE or NASDAQ and classified as banks or financial services firms in the Datastream database. The base sample excludes firms with returns highly correlated to Citigroup. Schedule connections are the number of times the firm was on Geithner's schedule during 2007-08, when he was president of the New York Fed; personal connections are as compiled from muckety.com; and New York connections are defined as firms having headquarters in New York City. Size, profitability, and leverage are from the Worldscope database for the year 2008. CDS spreads are for five-year contracts and are stated in percents.

Panel A: Summary Statistics (Full sample)

	Mean	Min	25th Pctile	Median	75th Pctile	Max	St. Dev.	N
(1) Geithner Connections (Schedule)	0.21	0.00	0.00	0.00	0.00	34.00	1.74	603
(2) Geithner Connections (Personal)	0.08	0.00	0.00	0.00	0.00	9.00	0.60	603
(3) Geithner Connection (New York)	0.07	0.00	0.00	0.00	0.00	1.00	0.26	603
(4) Size (Log of Total Assets)	21.33	16.32	20.23	21.03	22.10	28.41	1.72	596
(5) Profitability (ROE)	-0.05	-3.62	-0.06	0.04	0.09	0.82	0.35	585
(6) Leverage (Total Debt/Total Capital)	0.57	0.00	0.43	0.61	0.71	3.10	0.27	592
(7) CAR[0]	-0.02	-0.24	-0.04	-0.01	0.01	0.35	0.06	603
(8) CAR[0,1]	-0.02	-0.46	-0.07	-0.02	0.03	0.48	0.11	603
(9) CAR[0,10]	0.02	-0.69	-0.10	-0.02	0.09	1.38	0.21	603
(10) CDS Spread, Day 1	4.65	0.23	1.16	2.33	5.32	29.29	6.15	30
(11) % Change in CDS Spread[1]	-0.04	-0.49	-0.03	0.00	0.00	0.02	0.10	30
(12) % Change in CDS Spread[1,10]	-0.06	-0.49	-0.12	-0.04	0.00	0.15	0.13	30

Panel B: Geithner Connected vs. Non-connected (Full sample)

	Schedule	Non	Diff.	Personal	Non	Diff.	New York	Non	Diff.
(13) Size (Log of Total Assets)	24.40	21.20	3.20***	25.00	21.20	3.80***	21.78	21.30	0.48*
(14) Profitability (ROE)	0.04	-0.06	0.10	-0.15	-0.05	-0.10	-0.17	-0.04	-0.13**
(15) Leverage (Total Debt/Total Capital)	0.73	0.56	0.17***	0.60	0.56	0.04	0.57	0.56	0.00
(16) Number of obseravations in full sample	25	578		21	582		45	558	

Panel C: Geithner Connected vs. Non-connected (Base sample)

	Schedule	Non	Diff.	Personal	Non	Diff.	New York	Non	Diff.
(17) Size (Log of Total Assets)	23.13	20.98	2.16***	23.17	21.00	2.17***	20.95	21.04	-0.09
(18) Profitability (ROE)	0.06	-0.07	0.13	-0.42	-0.06	-0.36***	-0.20	-0.05	-0.14**
(19) Leverage (Total Debt/Total Capital)	0.71	0.56	0.15**	0.52	0.57	-0.05	0.54	0.57	-0.03
(20) Number of observations in base sample	15	530		9	536		38	507	

Panel D: Correlation Coefficients (Full sample)

	Schedule	Personal	New York	Size	Profitability	Leverage
(21) Geithner Connections (Schedule)	1.00					
(22) Geithner Connections (Personal)	0.86	1.00				
(23) Geithner Connection (New York)	0.35	0.39	1.00			
(24) Size (Log of Total Assets)	0.35	0.37	0.10	1.00		
(25) Profitability (ROE)	0.00	-0.03	-0.11	0.05	1.00	
(26) Leverage (Total Debt/Total Capital)	0.04	0.06	-0.15	0.28	-0.16	1.00

Table 2

Connections to Geithner and Stock Price Reactions to Treasury Secretary Announcement

The table presents returns of stocks of financial firms around the announcement of Barack Obama's nomination of Timothy Geithner as treasury secretary. Event day 0 is defined as November 21, 2008, when the pending announcement was leaked late in the trading day, and returns on that day are measured from 3pm to market closing. The announcement was officially made on event day 1. Panels A and C present actual returns while Panels B and D present cumulative abnormal returns. The base sample excludes firms with returns highly correlated to Citigroup. Abnormal returns are calculated using the market model with an estimation window of 250 trading days ending 30 days prior to event day 0. Schedule connections indicate that the firm was on Geithner's schedule during his tenure as president of the New York Fed, personal connections are as compiled from muckety.com, and New York connections are defined as firms having headquarters in New York City. Asterisks denote significance level of a two-tailed t-test (***=1%, **=5%, *=10%).

Panel A: Actual Returns (Base sample)

		Schedule Connections			Personal Connections			New York Connections		
Event Day	Date	Conn.	Non-Conn.	Difference	Conn.	Non-Conn.	Difference	Conn.	Non-Conn.	Difference
0	11/21/2008	0.086	0.042	0.043 **	0.075	0.043	0.033	0.085	0.040	0.044 ***
1	11/24/2008	0.130	0.046	0.084 ***	0.143	0.047	0.096 ***	0.078	0.046	0.031 *
2	11/25/2008	0.026	0.015	0.011	0.057	0.014	0.043	0.032	0.014	0.018
3	11/26/2008	0.112	0.041	0.071 ***	0.112	0.042	0.071 **	0.087	0.040	0.048 ***
4	11/28/2008	0.056	0.018	0.038 *	0.085	0.018	0.067 **	0.016	0.019	-0.003
5	12/1/2008	-0.131	-0.076	-0.056 **	-0.144	-0.076	-0.067 **	-0.105	-0.075	-0.030 *
6	12/2/2008	0.046	0.043	0.003	0.044	0.043	0.001	0.090	0.040	0.050 ***
7	12/3/2008	0.034	0.018	0.016	0.043	0.018	0.024	0.031	0.018	0.013
8	12/4/2008	-0.009	-0.013	0.005	0.005	-0.014	0.019	-0.020	-0.013	-0.008
9	12/5/2008	0.063	0.024	0.038 **	0.042	0.025	0.017	0.050	0.024	0.026 **
10	12/8/2008	0.064	0.027	0.037	0.072	0.028	0.045 **	0.050	0.027	0.023
0-10	(Cumulative)	0.551	0.180	0.372 ***	0.645	0.183	0.463 ***	0.468	0.169	0.299 ***

Panel B: Cumulative Abnormal Returns (Base sample)

		Schedule Connections			Personal Connections			New York Connections		
Event Day	Date	Conn.	Non-Conn.	Difference	Conn.	Non-Conn.	Difference	Conn.	Non-Conn.	Difference
0	11/21/2008	-0.013	-0.015	0.001	-0.034	-0.014	-0.020	-0.005	-0.015	0.011
1	11/24/2008	0.024	-0.022	0.046	0.005	-0.021	0.026	-0.011	-0.021	0.010
2	11/25/2008	0.039	-0.013	0.052	0.052	-0.012	0.064	0.012	-0.013	0.025
3	11/26/2008	0.099	-0.001	0.101 **	0.107	0.000	0.108 *	0.053	-0.002	0.055 *
4	11/28/2008	0.141	0.009	0.132 ***	0.177	0.009	0.167 ***	0.056	0.009	0.048
5	12/1/2008	0.136	0.006	0.129 ***	0.175	0.007	0.168 ***	0.067	0.006	0.061 **
6	12/2/2008	0.124	0.017	0.107 **	0.156	0.017	0.138 **	0.105	0.013	0.092 ***
7	12/3/2008	0.120	0.013	0.107 **	0.156	0.014	0.142 **	0.101	0.010	0.091 ***
8	12/4/2008	0.152	0.024	0.129 **	0.208	0.024	0.184 ***	0.118	0.021	0.098 ***
9	12/5/2008	0.162	0.018	0.144 ***	0.192	0.019	0.172 ***	0.121	0.015	0.106 ***
10	12/8/2008	0.171	0.014	0.157 ***	0.173	0.015	0.158 **	0.120	0.010	0.110 ***

Table 2 (continued)

Panel C: Actual Returns (Full sample)

		Schedule Connections			Personal Connections			New York Connections		
Event Day	Date	Conn.	Non-Conn.	Difference	Conn.	Non-Conn.	Difference	Conn.	Non-Conn.	Difference
0	11/21/2008	0.093	0.047	0.046 ***	0.096	0.047	0.049 ***	0.089	0.046	0.043 ***
1	11/24/2008	0.165	0.054	0.111 ***	0.185	0.054	0.131 ***	0.107	0.055	0.052 ***
2	11/25/2008	0.032	0.015	0.017	0.047	0.015	0.032	0.033	0.014	0.019
3	11/26/2008	0.087	0.042	0.045 **	0.076	0.043	0.034	0.085	0.040	0.045 ***
4	11/28/2008	0.051	0.018	0.033 **	0.054	0.018	0.036 **	0.021	0.019	0.002
5	12/1/2008	-0.151	-0.083	-0.068 ***	-0.165	-0.083	-0.082 ***	-0.118	-0.083	-0.034 **
6	12/2/2008	0.054	0.046	0.008	0.058	0.046	0.012	0.086	0.043	0.043 ***
7	12/3/2008	0.045	0.020	0.024	0.056	0.020	0.036 **	0.035	0.020	0.015
8	12/4/2008	-0.009	-0.014	0.005	-0.003	-0.015	0.011	-0.021	-0.014	-0.008
9	12/5/2008	0.060	0.029	0.031 **	0.056	0.029	0.027 *	0.054	0.028	0.026 **
10	12/8/2008	0.073	0.027	0.046 **	0.072	0.028	0.045 **	0.057	0.027	0.030 **
0-10	(Cumulative)	0.584	0.197	0.387 ***	0.646	0.197	0.448 ***	0.512	0.189	0.323 ***

Panel D: Cumulative Abnormal Returns (Full sample)

		Schedule Connections			Personal Connections			New York Connections		
Event Day	Date	Conn.	Non-Conn.	Difference	Conn.	Non-Conn.	Difference	Conn.	Non-Conn.	Difference
0	11/21/2008	-0.016	-0.015	0.000	-0.025	-0.015	-0.010	-0.007	-0.016	0.009
1	11/24/2008	0.046	-0.020	0.066 ***	0.046	-0.020	0.065 ***	0.010	-0.020	0.029 *
2	11/25/2008	0.067	-0.011	0.079 ***	0.080	0.011	0.069 ***	0.033	-0.011	0.045 **
3	11/26/2008	0.097	-0.002	0.099 ***	0.093	-0.001	0.094 ***	0.069	-0.003	0.072 ***
4	11/28/2008	0.131	0.007	0.124 ***	0.130	0.008	0.121 ***	0.076	0.007	0.069 **
5	12/1/2008	0.120	0.005	0.115 ***	0.120	0.005	0.115 ***	0.083	0.003	0.079 ***
6	12/2/2008	0.110	0.014	0.096 ***	0.107	0.015	0.092 **	0.113	0.010	0.103 ***
7	12/3/2008	0.112	0.010	0.102 ***	0.116	0.011	0.105 **	0.111	0.007	0.104 ***
8	12/4/2008	0.149	0.022	0.126 ***	0.163	0.023	0.140 ***	0.130	0.019	0.111 ***
9	12/5/2008	0.150	0.018	0.132 ***	0.154	0.018	0.135 ***	0.133	0.014	0.119 ***
10	12/8/2008	0.161	0.010	0.151 ***	0.157	0.011	0.147 ***	0.136	0.006	0.129 ***

Table 3

Connections to Geithner and Reactions to Treasury Secretary Announcement, OLS Regression Results

The table reports coefficient estimates of regressions of cumulative abnormal returns (CARs) surrounding the announcement of Geithner as treasury secretary on measures of connections to Geithner and control variables. Event day 0 is defined as November 21, 2008, when the pending announcement was leaked late in the trading day, and returns on that day are measured from 3pm to market closing. The announcement was officially made on event day 1. The CAR is measured as day 0 only, from day 0 to day 1, or from day 0 to day 10, as indicated. Abnormal returns are calculated using the market model with an estimation window of 250 trading days ending 30 days prior to event day 0. The base sample excludes firms with returns highly correlated to Citigroup. Schedule connections are the number of times the firm was on Geithner's schedule during 2007-08, when he was president of the New York Fed; personal connections are as compiled from muckety.com; and New York connections are defined as firms having headquarters in New York City. Basic control variables are measured as of year-end 2008: size is the log of total assets, profitability is return on equity, and leverage is total debt to total capital. Robust standard errors, adjusted for pre-event correlations between firms, are below coefficients in parentheses, and asterisks denote significance levels (***=1%, **=5%, *=10%).

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	Dependent variable is CAR [0] (Full sample)			*Dependent variable is CAR [0,1] (Base sample)*			*Dependent variable is CAR [0,10] (Base sample)*		
	Schedule	*Personal*	*New York*	*Schedule*	*Personal*	*New York*	*Schedule*	*Personal*	*New York*
Geithner Connections	0.0025 *	0.0057	0.0141 *	0.014 ***	0.055 ***	0.012	0.016 *	0.074 ***	0.102 ***
	(0.0013)	(0.0040)	(0.0081)	(0.004)	(0.011)	(0.012)	(0.009)	(0.026)	(0.029)
Size	-0.004 ***	-0.004 ***	-0.004 ***	-0.006 ***	-0.006 ***	-0.004 ***	-0.017 ***	-0.017 ***	-0.016 ***
	(0.001)	(0.001)	(0.000)	(0.000)	(0.000)	(0.000)	(0.001)	(0.001)	(0.001)
Profitability	0.022 ***	0.022 ***	0.023 ***	0.043 ***	0.048 ***	0.044 ***	-0.048 ***	-0.042 ***	-0.036 ***
	(0.000)	(0.000)	(0.001)	(0.000)	(0.001)	(0.001)	(0.000)	(0.002)	(0.004)
Leverage	-0.005 ***	-0.006 ***	-0.003	0.000	0.000	-0.006 *	-0.048 ***	-0.045 ***	-0.029 ***
	(0.001)	(0.001)	(0.002)	(0.002)	(0.002)	(0.003)	(0.005)	(0.004)	(0.008)
Number of firms	583	583	583	525	525	525	525	525	525
R-squared	0.029	0.027	0.028	0.031	0.037	0.023	0.024	0.027	0.034

Table 4

Connections to Geithner and Reactions to Treasury Secretary Announcement, OLS Robustness Checks

The table reports coefficient estimates of regressions of cumulative abnormal returns (CARs) surrounding the announcement of Geithner as treasury secretary on measures of connections to Geithner and control variables. Event day 0 is defined as November 21, 2008, when the pending announcement was leaked late in the trading day, and returns on that day are measured from 3pm to market closing. The announcement was officially made on event day 1. The CAR is measured as day 0 only, from day 0 to day 1, or from day 0 to day 10, as indicated. Abnormal returns are calculated using the market model with an estimation window of 250 trading days ending 30 days prior to event day 0. The base sample excludes firms with returns highly correlated to Citigroup. Schedule connections are the number of times the firm was on Geithner's schedule during 2007-08 (only 2007 in column 13), when he was president of the New York Fed; personal connections are as compiled from muckety.com. Also included in the regressions but not reported are control variables measured as of year-end 2008: size is the log of total assets, profitability is return on equity, and leverage is total debt to total capital. "Systemic importance" firms are those that were later evaluated in government-administered stress tests. In Columns 1 and 2 other controls (not reported) include the CAR[0,4] for the firm subsequent to the collapse of Lehman Brothers, a dummy variable equal to one if the firm takes deposits, and a dummy variable equal to one if the firm had accepted TARP funding as of Geithner's nomination announcement. In Columns 3 and 4, the estimation window is a five-week window surrounding the collapse of Lehman Brothers on September 15, 2008. In Columns 11 and 12, powers of the basic control variables (size, profitability, and leverage, up to the fourth power) are also included but not reported. Robust standard errors, adjusted for pre-event correlations between firms, are below coefficients in parentheses, and asterisks denote significance levels (***=1%, **=5%, *=10%).

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
	Control for crisis vulnerability		*Lehman collapse estimation beta*		*Top size decile only*		*Exclude "systemic importance" firms*		*Exclude extreme CARs (1%/99%)*		*Include powers of control variables*		*2007 appts. only*
	Schedule	*Personal*	*Schedule*	*Personal*	*Schedule*	*Personal*	*Schedule*	*Personal*	*Schedule*	*Personal*	*Schedule*	*Personal*	*Schedule*
Panel A: Dependent variable is CAR [0] (Full sample)													
Geithner Connections	0.0023 **	0.0051 *	0.0025 *	0.0075 *	0.0031 ***	0.0071 **	0.0035	0.0036	0.0021	0.0046	0.0032 ***	0.0068 **	0.0033 *
	(0.0010)	(0.0031)	(0.0013)	(0.0040)	(0.0009)	(0.0034)	(0.0023)	(0.0072)	(0.0013)	(0.0040)	(0.0009)	(0.0032)	(0.0019)
Number of firms	576	576	583	583	58	58	566	566	571	571	583	583	583
R-squared	0.030	0.028	0.050	0.050	0.225	0.154	0.026	0.025	0.027	0.024	0.043	0.041	0.028
Panel B: Dependent variable is CAR [0,1] (Base sample)													
Geithner Connections	0.012 ***	0.054 ***	0.015 ***	0.069 ***	0.012 ***	0.046 ***	0.013 ***	0.056 ***	0.012 ***	0.052 ***	0.012 ***	0.047 ***	0.035 ***
	(0.003)	(0.011)	(0.004)	(0.011)	(0.003)	(0.011)	(0.004)	(0.011)	(0.004)	(0.011)	(0.003)	(0.007)	(0.007)
Number of firms	518	518	525	525	52	52	523	523	517	517	525	525	525
R-squared	0.037	0.044	0.038	0.047	0.068	0.104	0.029	0.039	0.043	0.051	0.048	0.052	0.038
Panel C: Dependent variable is CAR [0,10] (Base sample)													
Geithner Connections	0.006	0.042 *	0.029 ***	0.128 ***	0.011	0.109 ***	0.020 **	0.074 ***	0.016 *	0.076 ***	0.011 *	0.064 ***	0.016
	(0.006)	(0.023)	(0.009)	(0.026)	(0.006)	(0.024)	(0.008)	(0.027)	(0.009)	(0.026)	(0.006)	(0.007)	(0.016)
Number of firms	518	518	525	525	52	52	523	523	516	516	525	525	525
R-squared	0.086	0.087	0.054	0.060	0.034	0.146	0.025	0.028	0.020	0.026	0.080	0.083	0.022

Table 5

Connections to Geithner and Reactions to Treasury Secretary Announcement, Synthetic Matching Estimation

The table reports coefficient estimates of regressions of cumulative abnormal returns (CARs) surrounding the announcement of Geithner as treasury secretary on measures of connections to Geithner and control variables. Standard OLS estimates (without standard error adjustments) as well as synthetic matching estimates are reported. Event day 0 is defined as November 21, 2008, when the pending announcement was leaked late in the trading day, and returns on that day are measured from 3pm to market closing. The announcement was officially made on event day 1. The CAR is measured for day 0 only in Panel A, from day 0 to day 1 in Panel B, and from day 0 to day 10 in Panel C. Abnormal returns are calculated using the market model with an estimation window of 250 trading days ending 30 days prior to event day 0. The base sample excludes firms with returns highly correlated to Citigroup. "Geithner Connections" is a dummy variable equal to one if the firm was on Geithner's schedule during 2007-08, when he was president of the New York Fed. "Highly connected" indicates more than two meetings with Geithner, and "Mildly connected" indicates one or two meetings. Basic control variables (not reported) are measured as of year-end 2008: size is the log of total assets, profitability is return on equity, and leverage is total debt to total capital. For matching estimators, the matching window is the 250 days ending 30 days before the Geithner nomination announcement. Confidence intervals in columns for matching estimators are computed according to a placebo exercise (5,000 simulations) of finding Geithner coefficients for non-connected firms. The number of times in which the Geithner coefficient is significant for a test window are also reported (based on 100 trading days from 10/31/08 through 4/7/09, with key event dates excluded). Asterisks denote significance levels (***=1%, **=5%, *=10%).

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	All Geithner connections			*Highly connected*			*Mildly connected*		
	OLS	*Matching*	*Corrected*	*OLS*	*Matching*	*Corrected*	*OLS*	*Matching*	*Corrected*
Panel A: Dependent variable is CAR [0] (Full sample)									
Geithner Connections	0.016 **	0.004	0.001	0.024 **	0.010	0.004	0.011 *	0.000	0.000
Confidence interval (2.5%)		-0.032	-0.029		-0.044	-0.046		-0.036	-0.036
Confidence interval (97.5%)		0.013	0.011		0.025	0.025		0.021	0.018
Number of sig. coefficients (10%)	40	7	8	37	11	11	30	0	2
Number of sig. coefficients (5%)	35	4	4	30	6	4	22	0	1
Number of sig. coefficients (1%)	16	0	0	14	1	0	10	0	0
Number of firms	583	583	469	583	583	469	574	574	460
Number in treatment group	22	22	21	9	9	8	13	13	13
Panel B: Dependent variable is CAR [0,1] (Base sample)									
Geithner Connections	0.073 ***	0.059 ***	0.059 ***	0.171 ***	0.153 **	0.153 ***	0.041 **	0.033 *	0.033 *
Confidence interval (2.5%)		-0.074	-0.072		-0.133	-0.125		-0.083	-0.077
Confidence interval (97.5%)		0.030	0.026		0.107	0.080		0.039	0.037
Number of sig. coefficients (10%)	23	13	17	12	4	7	23	8	13
Number of sig. coefficients (5%)	12	5	9	7	0	3	16	1	3
Number of sig. coefficients (1%)	7	0	1	6	0	0	10	0	1
Number of firms	525	525	443	525	525	455	522	522	436
Number in treatment group	12	12	12	3	3	3	9	9	9
Panel C: Dependent variable is CAR [0,10] (Base sample)									
Geithner Connections	0.138 ***	0.124 **	0.124 ***	0.130	0.151	0.151 *	0.136 ***	0.117 **	0.117 **
Confidence interval (2.5%)		-0.110	-0.103		-0.198	-0.180		-0.115	-0.105
Confidence interval (97.5%)		0.089	0.072		0.229	0.181		0.099	0.093
Number of sig. coefficients (10%)	35	21	32	11	13	19	46	15	19
Number of sig. coefficients (5%)	29	13	14	8	8	11	40	5	6
Number of sig. coefficients (1%)	10	3	3	2	1	1	26	0	1
Number of firms	525	525	443	525	525	455	522	522	436
Number in treatment group	12	12	12	3	3	3	9	9	9

Table 6

Connections to Geithner and Reactions to Treasury Secretary Announcement, Synthetic Matching Estimation - Robustness Checks

The table reports coefficient estimates of regressions of cumulative abnormal returns (CARs) surrounding the announcement of Geithner as treasury secretary on measures of connections to Geithner and control variables. OLS estimates as well as synthetic matching estimates are reported. Event day 0 is defined as November 21, 2008, and returns on that day are measured from 3pm to market closing. The announcement was officiallymade on event day 1. In all panels the dependent variable is CAR[0,1], and the base sample (excluding firms with returns highly correlated to Citigroup) is used. In Panel A, the estimation window is the most severe phase of financial crisis, from September 2008 through mid-October 2008. "Geithner Connections" is a dummy variable equal to one if the firm was on Geithner's schedule during 2007-08, when he was president of the New York Fed. "Highly connected" indicates more than two meetings with Geithner, and "Mildly connected" indicates one or two meetings. In Panel B, personal connections are as compiled from muckety.com, and highly connected means having more than one connection with Geithner while mildly connected means having one connection. In Panel C, New York connections are defined as having headquarters in New York. In Panel D, only schedule connections from 2007 are counted as connections. For OLS results basic control variables (not reported) are measured as of year-end 2008: size is the log of total assets, profitabilityis return on equity, and leverage is total debt to total capital. For matching estimators the matching window is the 250 days ending 30 days before the Geithner nomination announcement. Confidence intervals for hypothesis testing of the effect of Geithner connections being equal to zero are computed according to 1,000 placebo simulations. Asterisks denote significance levels (***=1%, **=5%, *=10%).

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	All Geithner connections			*Highly connected*			*Mildly connected*		
	OLS	*Matching*	*Corrected*	*OLS*	*Matching*	*Corrected*	*OLS*	*Matching*	*Corrected*
	Dependent variable is CAR [0,1]								
Panel A: Financial Crisis estimation window, Schedule connections									
Geithner Connections	0.073 ***	0.071 *	0.071 *	0.171 ***	0.181 **	0.181 **	0.041 **	0.042	0.042
Confidence interval (2.5%)		-0.065	-0.067		-0.121	-0.127		-0.079	-0.075
Confidence interval (97.5%)		0.053	0.053		0.114	0.139		0.079	0.061
Number of firms	525	525	479	525	525	492	522	522	478
Number in treatment group	12	12	12	3	3	3	9	9	9
Panel B: Personal connections									
Geithner Connections	0.067 ***	0.030 *	0.030 *	0.115 ***	0.096 **	0.096 **	0.038	-0.009	-0.009
Confidence interval (2.5%)		-0.086	-0.077		-0.121	-0.133		-0.107	-0.098
Confidence interval (97.5%)		0.039	0.047		0.096	0.095		0.070	0.065
Number of firms	525	525	501	525	525	511	522	525	493
Number in treatment group	8	8	8	3	3	3	5	5	5
Panel C: New York connections									
Geithner Connections	0.013	0.010 **	0.010 ***						
Confidence interval (2.5%)		-0.053	-0.053						
Confidence interval (97.5%)		0.007	0.005						
Number of firms	525	525	508						
Number in treatment group	34	34	34						
Panel D: 2007 Schedule									
Geithner Connections	0.063	0.058 **	0.058 **	0.050	0.120 **	0.120 **	0.074 **	-0.001	-0.009
Confidence interval (2.5%)		-0.098	-0.094		-0.123	-0.124		-0.131	-0.098
Confidence interval (97.5%)		0.052	0.043		0.099	0.079		0.094	0.065
Number of firms	525	525	392	525	525	398	522	522	493
Number in treatment group	6	6	6	3	3	3	3	3	3

Table 7

Connections to Geithner and Returns Prior to Treasury Secretary Announcement

The table reports coefficient estimates of regressions of cumulative abnormal returns (CARs) prior to the announcement of Geithner as treasury secretary on measures of connections to Geithner and control variables. Synthetic matching estimates are reported. Event day 0 is defined as November 21, 2008, when the pending announcement was leaked late in the trading day, and returns on that day are measured from the market opening to 3pm. The CAR is measured from event day -1 to event day 0, day -5 to day 0, or day-10 to day 0 as indicated. Abnormal returns are calculated using the market model with an estimation window of 250 trading days ending 30 days prior to event day 0. The base sample excludes firms with returns highly correlated to Citigroup. Schedule connections indicate whether the firm was on Geithner's schedule during 2007-08, when he was president of the New York Fed; personal connections are as compiled from muckety.com; and New York connections are defined as firms having headquarters in New York City. "Highly connected" indicates more than two meetings with Geithner, and "Mildly connected" indicates one or two meetings. The 95% confidence interval (generated from 5,000 simulations) is reported. Asterisks denote significance levels (***=1%, **=5%, *=10%).

	(1)	(2)	(3)	(4)	(5)
	All Conn.	*Highly Conn.*	*Mildly Conn.*	*All Conn.*	
		Schedule		*Personal*	*New York*
Panel A: Dependent variable is CAR[-1,0]					
Geithner Connections	-0.016	-0.039	-0.010	-0.015	-0.015
Confidence interval (2.5%)	-0.050	-0.118	-0.061	-0.067	-0.029
Confidence interval (97.5%)	0.044	0.101	0.051	0.052	0.024
Number of firms	525	525	522	525	525
Number in treatment group	12	3	9	8	34
Panel B: Dependent variable is CAR[-5,0]					
Geithner Connections	-0.052	-0.049	-0.053	-0.034	-0.0155
Confidence interval (2.5%)	-0.064	-0.186	-0.079	-0.086	-0.0279
Confidence interval (97.5%)	0.079	0.148	0.084	0.086	0.0511
Number of firms	525	525	522	525	525
Number in treatment group	12	3	9	8	34
Panel C: Dependent variable is CAR[-10,0]					
Geithner Connections	-0.064	-0.027	-0.075	-0.080	-0.045 *
Confidence interval (2.5%)	-0.097	-0.238	-0.111	-0.121	-0.047
Confidence interval (97.5%)	0.087	0.172	0.103	0.103	0.054
Number of firms	525	525	522	525	525
Number in treatment group	12	3	9	8	34

Table 8

Connections to Geithner and Reactions to Treasury Secretary Announcement, CDS Spreads

The table reports coefficient estimates of regressions of percent changes in CDS spreads surrounding the announcement of Geithner as treasury secretary on measures of connections to Geithner and control variables. CDS spreads are on 5-year $US-denominated contracts. Event day 0 is defined as November 21, 2008, when the pending announcement was leaked late in the trading day, but due to a lack of liquidity and a lack of intraday quotes, the changes are measured beginning on day 1, when the announcement was officially made. The % change in CDS spread is measured as day 1 only, or from day 1 to day 10, as indicated. Schedule connections are the number of times the firm was on Geithner's schedule during 2007-08, when he was president of the New York Fed; personal connections are as compiled from muckety.com; and New York connections are defined as firms having headquarters in New York City. For OLS results basic control variables (not reported) are measured as of year-end 2008: size is the log of total assets, profitability is return on equity, and leverage is total debt to total capital. For matching estimators the matching window is the 100 days ending 30 days before the Geithner nomination announcement. Robust standard errors, adjusted for pre-event correlations between firms, are below coefficients in parentheses, and asterisks denote significance levels (***=1%, **=5%, *=10%).

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Panel A: OLS estimates												
	Dependent variable is % change in CDS spread [1]						*Dependent variable is % change in CDS spread [1,10]*					
	Citigroup included			*Citigroup excluded*			*Citigroup included*			*Citigroup excluded*		
	Schedule	*Personal*	*New York*	*Schedule*	*Personal*	*New York*	*Schedule*	*Personal*	*New York*	*Schedule*	*Personal*	*New York*
Geithner Connections	-0.013 ***	-0.037 ***	-0.127 **	-0.009	-0.020	-0.073	-0.012	-0.037	-0.226	-0.010	-0.025	-0.189
	(0.003)	(0.010)	(0.056)	(0.006)	(0.013)	(0.058)	(0.009)	(0.035)	(0.054)	(0.023)	(0.013)	(0.189)
Number of firms	27	27	27	26	26	26	27	27	27	26	26	26
R-squared	0.917	0.776	0.512	0.683	0.774	0.627	0.541	0.526	0.605	0.274	0.321	0.530
Panel B: Synthetic matching estimates												
	Dependent variable is % change in CDS spread [1]						*Dependent variable is % change in CDS spread [1,10]*					
	Citigroup included			*Citigroup excluded*			*Citigroup included*			*Citigroup excluded*		
	Schedule	*Personal*	*New York*	*Schedule*	*Personal*	*New York*	*Schedule*	*Personal*	*New York*	*Schedule*	*Personal*	*New York*
Geithner Connections	-0.090 ***	-0.024 **	-0.115 ***	-0.036 ***	-0.004 **	-0.046 ***	-0.043	-0.122 ***	-0.213 ***	0.015	-0.100 ***	-0.158 ***
Confidence interval (2.5%)	-0.010	-0.001	-0.012	-0.012	-0.001	-0.020	-0.064	-0.021	-0.069	-0.072	-0.023	-0.071
Confidence interval (97.5%)	0.008	0.000	0.008	0.013	0.000	0.010	0.026	0.000	0.042	0.043	0.001	0.065
Number of firms	27	27	27	26	26	26	27	27	27	26	26	26
Number in treatment group	7	11	6	6	10	5	7	11	6	6	10	5

Table 9

Connections to Other Treasury Secretary Candidates and Reactions to Treasury Secretary Announcement

The table reports coefficient estimates of regressions of cumulative abnormal stock returns (CARs) and percent changes in CDS spreads surrounding the announcement of Geithner as treasury secretary on measures of connections to treasury secretary candidates and control variables. Estimates for the full sample (excluding Citigroup in CAR results) are reported. Event day 0 is defined as November 21, 2008, when the pending announcement was leaked late in the trading day, and stock returns on that day are measured from 3pm to market closing. The announcement was officially made on event day 1. In Columns 1 to 5, the CAR is measured from day 0 to day 1, and in Columns 6 to 9, the percent change in CDS spreads are measured for day 1. Abnormal stock returns are calculated using the market model with an estimation window of 250 trading days ending 30 days prior to event day 0. Connections are the number of connections to each firm for Geithner or other candidates as compiled from muckety.com. Control variables (included but not reported) are measured as of year-end 2008: size is the log of total assets, profitability is return on equity, and leverage is total debt to total capital. Robust standard errors, adjusted for pre-event correlations between firms, are below coefficients in parentheses. Asterisks denote significance levels (***=1%, **=5%, *=10%).

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	Dependent variable is CAR [0,1]					*Dependent variable is % change in CDS spread [1]*			
Geithner Connections	0.030 ***	0.026 ***	0.026 ***	0.034 ***	0.030 ***	-0.037 ***	-0.045 **	-0.047 ***	-0.061 ***
	(0.007)	(0.007)	(0.007)	(0.011)	(0.007)	(0.010)	(0.013)	(0.012)	(0.011)
Summers Connections		0.006					0.015		
		(0.013)					(0.015)		
Corzine Connections			0.028 *					0.090 ***	
			(0.017)					(0.028)	
Volcker Connections				-0.006					0.047 ***
				(0.013)					(0.016)
Bair Connections					-0.040				
					(0.034)				
Number of firms	582	582	582	582	582	27	27	27	27
R-squared	0.037	0.037	0.038	0.037	0.037	0.774	0.781	0.849	0.850

Table 10

Connections to Geithner and Stock Price Reactions to Tax Problems

The table presents returns of stocks of financial firms around the announcement of Timothy Geithner's tax errors and delayed confirmation hearing. Event day 0 is defined as January 14, 2009; the tax problems were disclosed by the Senate Finance Committee on January 13, 2009 after the market closed on that day. The base sample excludes firms with returns highly correlated to Citigroup or Bank of America. Panels A and C present actual returns and Panels B and D present cumulative abnormal returns. Abnormal returns are calculated using the market model with an estimation window of 250 trading days ending 30 days prior to Event Day 0. Schedule connections indicate that the firm was on Geithner's schedule during his tenure as president of the New York Fed, personal connections are as compiled from muckety.com, and New York connections are defined as firms having headquarters in New York City. Asterisks denote significance level of a two-tailed t-test (***=1%, **=5%, *=10%).

Panel A: Actual Returns, Base sample

		Schedule Connections			Personal Connections			New York Connections		
Event Day	Date	Conn.	Non-Conn.	Difference	Conn.	Non-Conn.	Difference	Conn.	Non-Conn.	Difference
0	1/14/2009	-0.054	-0.029	-0.025	-0.053	-0.029	-0.024	-0.054	-0.028	-0.027 **
1	1/15/2009	-0.008	0.000	-0.009	-0.024	0.001	-0.025	0.020	-0.001	0.021 **
2	1/16/2009	0.005	-0.002	0.007	-0.011	-0.002	-0.009	-0.002	-0.002	0.000
3	1/19/2009	-0.119	-0.061	-0.058 **	-0.070	-0.062	-0.009	-0.076	-0.061	-0.015
0-3	(Cumulative)	-0.169	-0.090	-0.079 **	-0.145	-0.091	-0.054	-0.110	-0.090	-0.020
4	1/20/2009	0.071	0.039	0.032	0.101	0.038	0.062 **	0.085	0.036	0.049 ***

Panel B: Cumulative Abnormal Returns, Base sample

		Schedule Connections			Personal Connections			New York Connections		
Event Day	Date	Conn.	Non-Conn.	Difference	Conn.	Non-Conn.	Difference	Conn.	Non-Conn.	Difference
0	1/14/2009	-0.014	-0.006	-0.008	-0.008	-0.006	-0.002	-0.018	-0.006	-0.012
1	1/15/2009	-0.024	-0.007	-0.018	-0.034	-0.007	-0.028	0.000	-0.008	0.008
2	1/16/2009	-0.029	-0.014	-0.015	-0.056	-0.014	-0.042	-0.010	-0.015	0.005
3	1/19/2009	-0.085	-0.039	-0.046	-0.056	-0.040	-0.016	-0.028	-0.041	0.013
4	1/20/2009	-0.066	-0.030	-0.037	-0.014	-0.031	0.017	0.009	-0.034	0.043 **

Panel C: Actual Returns, Full sample

		Schedule Connections			Personal Connections			New York Connections		
Event Day	Date	Conn.	Non-Conn.	Difference	Conn.	Non-Conn.	Difference	Conn.	Non-Conn.	Difference
0	1/14/2009	-0.058	-0.032	-0.026 **	-0.063	-0.032	-0.031 **	-0.059	-0.031	-0.028 ***
1	1/15/2009	-0.026	-0.003	-0.023 *	-0.051	-0.003	-0.048 ***	0.007	-0.005	0.012
2	1/16/2009	-0.011	-0.003	-0.009	-0.031	-0.002	-0.029 **	-0.006	-0.003	-0.003
3	1/19/2009	-0.145	-0.066	-0.078 ***	-0.132	-0.067	-0.065 ***	-0.091	-0.068	-0.023 *
0-3	(Cumulative)	-0.217	-0.101	-0.116 ***	-0.243	-0.101	-0.142 ***	-0.140	-0.103	-0.037 *
4	1/20/2009	0.130	0.043	0.087 ***	0.148	0.043	0.105 ***	0.104	0.042	0.063 ***

Panel D: Cumulative Abnormal Returns, Full sample

		Schedule Connections			Personal Connections			New York Connections		
Event Day	Date	Conn.	Non-Conn.	Difference	Conn.	Non-Conn.	Difference	Conn.	Non-Conn.	Difference
0	1/14/2009	-0.013	-0.007	-0.006	-0.015	-0.007	-0.008	-0.018	-0.006	-0.012
1	1/15/2009	-0.041	-0.011	-0.030 *	-0.068	-0.010	-0.058 ***	-0.013	-0.012	-0.001
2	1/16/2009	-0.064	-0.020	-0.044 **	-0.111	-0.018	-0.093 ***	-0.028	-0.021	-0.007
3	1/19/2009	-0.137	-0.047	-0.091 ***	-0.166	-0.046	-0.120 ***	-0.055	-0.050	-0.005
4	1/20/2009	-0.067	-0.037	-0.031	-0.083	-0.006	-0.077 *	-0.004	-0.041	0.037 **

Table 11

Connections to Geithner and Reactions to Tax Problems, Regression Results

The table reports coefficient estimates of regressions of cumulative abnormal returns (CARs) surrounding the announcement of Geithner's tax problems on measures of connections to Geithner and control variables. OLS estimates (Panel A) and synthetic matching estimates (Panel B) are reported. Event day 0 is defined as January 14, 2009; the tax problems were disclosed by the Senate Finance Committee on January 13, 2009 after the market closed on that day. The base sample excludes firms with returns highly correlated to Citigroup or Bank of America. In Columns 1 to 6, the CAR is measured from day 0 to day 1, and in Columns 7 to 12, the CAR is measured from day 0 to day 3. Abnormal returns are calculated using the market model with an estimation window of 250 trading days ending 30 days prior to event day 0. Schedule connections are the number of times the firm was on Geithner's schedule during 2007-08, when he was president of the New York Fed (a 0/1 indicator in Panel B); personal connections are as compiled from muckety.com; and New York connections are defined as firms having headquarters in New York City. "Highly connected" indicates more than two meetings with Geithner, and "Mildly connected" indicates one or two meetings. Control variables (not reported) are measured as of year-end 2008: size is the log of total assets, profitability is return on equity, and leverage is total debt to total capital. In Panel A, robust standard errors, adjusted for pre-event correlations between firms, are below coefficients in parentheses, and in Panel B the 95% confidence interval (generated from 5,000 simulations) is reported. Asterisks denote significance levels (***=1%, **=5%, *=10%).

Panel A: OLS estimates

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
	Dependent variable is CAR [0,1]						*Dependent variable is CAR [0,3]*					
	Base sample			*Full sample*			*Base sample*			*Full sample*		
	Schedule	*Personal*	*New York*	*Schedule*	*Personal*	*New York*	*Schedule*	*Personal*	*New York*	*Schedule*	*Personal*	*New York*
Geithner Connections	-0.002	-0.011	0.012	-0.004 *	-0.008	0.010	0.002	0.003	0.026	-0.005 *	-0.010	0.022
	(0.004)	(0.011)	(0.012)	(0.002)	(0.006)	(0.012)	(0.005)	(0.016)	(0.016)	(0.003)	(0.009)	(0.018)
Number of firms	515	515	515	583	583	583	515	515	515	583	583	583
R-squared	0.021	0.022	0.022	0.076	0.072	0.070	0.092	0.092	0.095	0.178	0.176	0.176

Panel B: Synthetic matching estimates

	Dependent variable is CAR [0,1]						*Dependent variable is CAR [0,3]*					
	Base sample			*Full sample*			*Base sample*			*Full sample*		
	All Conn.	*Highly Conn.*	*Mildly Conn.*	*All Conn.*	*Highly Conn.*	*Mildly Conn.*	*All Conn.*	*Highly Conn.*	*Mildly Conn.*	*All Conn.*	*Highly Conn.*	*Mildly Conn.*
Geithner Connections	-0.021	-0.048	-0.016	0.003	-0.027 *	0.019	-0.053 **	-0.079	-0.047 *	-0.044 ***	-0.148 ***	0.014
Confidence interval (2.5%)	-0.032	-0.108	-0.039	-0.017	-0.033	-0.027	-0.038	-0.128	-0.050	-0.019	-0.039	-0.032
Confidence interval (97.5%)	0.049	0.094	0.053	0.033	0.050	0.042	0.072	0.155	0.078	0.057	0.084	0.069
Number of firms	515	515	513	583	583	574	515	515	513	583	583	574
Number in treatment group	10	2	8	22	9	13	10	2	8	22	9	13

Appendix Table A1

Connections of Timothy Geithner to Financial Firms

The table lists firms to which Timothy Geithner has connections through one or more individuals. The connections are compiled from muckety.com. The connections represent either known connections between Geithner and an individual or potential connections in that Geithner and the individual are associated with the same organization.

Firm	Connected Person	Position with Firm	Connection to Geithner	Geithner's Position with Connection	Connected Person's Position with Connection
American Express	Kenneth I. Chenault	chairman & CEO	National Academy Foundation	director	director
American Express	Kenneth I. Chenault	chairman & CEO	Partnership for New York City	board member	vice chair
Bank of America	Patricia E. Mitchell	director	Council on Foreign Relations	member	member
BlackRock	James E. Rohr	director	RAND Corporation	trustee	trustee
BlackRock	John A. Thain	director	Unofficial Adviser to Geithner	NA	NA
Blackstone Group	J. Tomilson Hill	vice chairman	Council on Foreign Relations	member	director
Blackstone Group	Paul H. O'Neill	special adviser	RAND Corporation	trustee	trustee
Blackstone Group	Peter G. Peterson	chairman and co-founder	Unofficial Adviser to Geithner	NA	NA
Blackstone Group	Richard E. Salomon	adv. board chair, alt. asset mgt.	Council on Foreign Relations	member	vice chairman
Capital One	Patrick W. Gross	director	Council on Foreign Relations	member	member
Carver Bancorp	Deborah C. Wright	chairman & president & CEO	Partnership for New York City	board member	director
CIT Group	Jeffrey M. Peek	chairman & CEO	Partnership for New York City	board member	director
CIT Group	Seymour Sternberg	director	Council on Foreign Relations	member	member
CIT Group	Seymour Sternberg	director	Partnership for New York City	board member	director
Citigroup	Alain J.P. Belda	director	Partnership for New York City	board member	director
Citigroup	C. Michael Armstrong	director	Council on Foreign Relations	member	member
Citigroup	Judith Rodin	director	Council on Foreign Relations	member	member
Citigroup	Kenneth T. Derr	director	Council on Foreign Relations	member	member
Citigroup	Michael B.G. Froman	managing director	Council on Foreign Relations	member	member
Citigroup	Pamela P. Flaherty	director, corporate citizenship	Council on Foreign Relations	member	member
Citigroup	Richard D. Parsons	chairman	Partnership for New York City	board member	chair emeritus, director
Citigroup	Robert E. Rubin	director	Geithner is Protégé of Rubin	NA	NA
Citigroup	Roberto H. Ramirez	director	Federal Reserve Bank of New York	president	int'l advisory board
Fannie Mae	Herbert M. Allison Jr.	President & CEO	Economic Club of New York	trustee	trustee
Fannie Mae	Herbert M. Allison Jr.	President & CEO	Partnership for New York City	board member	director
Fortress Inv. Group	Richard N. Haass	director	Council on Foreign Relations	member	president
Franklin Resources	Anne M. Tatlock	director	Council on Foreign Relations	member	member
GAMCO Investors	Eugene R. McGrath	director	Economic Club of New York	trustee	trustee
Goldman Sachs	Ashton B. Carter	consultant	Council on Foreign Relations	member	member
Goldman Sachs	E. Gerald Corrigan	managing director	Unofficial Adviser to Geithner	NA	NA
Goldman Sachs	James A. Johnson	director	Council on Foreign Relations	member	member
Goldman Sachs	John C. Whitehead	foundation chairman	International Rescue Committee	trustee	trustee
Goldman Sachs	Lloyd C. Blankfein	chairman & CEO	Partnership for New York City	board member	director
Goldman Sachs	Robert D. Hormats	vice chairman, GS International	Economic Club of New York	trustee	trustee, vice chair
Goldman Sachs	Ruth J. Simmons	director	Council on Foreign Relations	member	member
Goldman Sachs	Stephen Friedman	director	Council on Foreign Relations	member	director
Goldman Sachs	Stephen Friedman	director	Federal Reserve Bank of New York	president	chair
JP Morgan Chase	Andrew D. Crockett	executive committee member	Group of Thirty	member	member
JP Morgan Chase	Ellen V. Futter	director	Council on Foreign Relations	member	member
JP Morgan Chase	James Dimon	chairman & CEO	Federal Reserve Bank of New York	president	director
JP Morgan Chase	James Dimon	chairman & CEO	Partnership for New York City	board member	director
JP Morgan Chase	Ratan N. Tata	international advisory board	RAND Corporation	trustee	trustee
JP Morgan Chase	William M. Daley	chairman midwest region	Council on Foreign Relations	member	member
M&T Bank	Robert G. Wilmers	chairman & CEO	Council on Foreign Relations	member	member
Morgan Stanley	Frederick B. Whittemore	partner & managing director	Council on Foreign Relations	member	trustee
Morgan Stanley	John J. Mack	chairman & CEO	Partnership for New York City	board member	director
Morgan Stanley	Philip Lader	senior adviser	RAND Corporation	trustee	trustee
NASDAQ	Robert Greifeld	president & CEO	Partnership for New York City	board member	director
NYSE	Shirley Ann Jackson	director	Council on Foreign Relations	member	director
PNC Fin. Services	James E. Rohr	chairman & CEO	RAND Corporation	trustee	trustee
Popular	Richard L. Carrion	chairman, president, & CEO	Federal Reserve Bank of New York	president	director
Wells Fargo	Donald B. Rice	director	RAND Corporation	trustee	trustee

Appendix Table A2
Connections of Other Treasury Secretary Candidates to Financial Firms

The table lists firms to which other treasury secretary candidates have connections through one or more individuals. The connections are compiled from muckety.com. The connections represent either known connections between the candidate and an individual or potential connections in that the candidate and the individual are associated with the same organization.

Firm	Connected Person	Position with Firm	Connection to Candidate	Candidates' Position with Connection	Connected Person's Position with
Panel A: Lawrence Summers					
BlackRock	Laurence D. Fink	chairman & CEO	Informal Adviser	NA	NA
Blackstone Group	Richard E. Salomon	adv. board chair, alt. asset mgt.	Peterson Institute for International Economics	director	director
Blackstone Group	Peter G. Peterson	chairman and co-founder	Peterson Institute for International Economics	director	chairman
Charles Schwab	Donald G. Fisher	director	Teach for America	director	director
Charles Schwab	Paula A. Sneed	director	Teach for America	director	director
Citigroup	Robert E. Rubin	director	Summers is Protégé of Rubin	NA	NA
Citigroup	Richard D. Parsons	chairman	Obama-Biden economic advisory team	member	member
Citigroup	Judith Rodin	director	Brookings Institution	trustee	honorary trustee
Citigroup	Anne M. Mulcahy	director	Obama-Biden economic advisory team	member	member
Goldman Sachs	James A. Johnson	director	Brookings Institution	trustee	honorary trustee
Goldman Sachs	John C. Whitehead	foundation chairman	Brookings Institution	trustee	honorary trustee
Goldman Sachs	Richard A. Friedman	managing director	Mount Sinai Medical Center (New York)	trustee	trustee
Goldman Sachs	Suzanne Nora Johnson	senior director	Brookings Institution	trustee	trustee
Goldman Sachs	Abby Joseph Cohen	senior investment strategist	Brookings Institution	trustee	trustee
Icahn Enterprises	Carl C. Icahn	owner	Mount Sinai Medical Center (New York)	trustee	trustee
JP Morgan Chase	George P. Shultz	chairman international council	American Corporate Partners	adv. council member	adv. council member
JP Morgan Chase	William M. Daley	chairman Midwest division	Obama-Biden economic advisory team	member	member
JP Morgan Chase	Ernesto Zedillo	int'l advisory board member	Peterson Institute for International Economics	director	director
Lazard	Vernon E. Jordan Jr.	director	Brookings Institution	trustee	honorary trustee
Morgan Stanley	Laura D'Andrea Tyson	director	Brookings Institution	trustee	trustee
Morgan Stanley	Laura D'Andrea Tyson	director	Obama-Biden economic advisory team	member	member
Morgan Stanley	Hutham S. Olayan	director	Peterson Institute for International Economics	director	director
Morgan Stanley	Laura D'Andrea Tyson	director	Peterson Institute for International Economics	director	director
NASDAQ	Glenn H. Hutchins	director	Brookings Institution	trustee	trustee
NYSE	Shirley Ann Jackson	director	Brookings Institution	trustee	trustee
Och-Ziff	David Windreich	partner	Mount Sinai Medical Center (New York)	trustee	trustee
Sallie Mae	Barry A. Munitz	director	Broad Foundations	governor	governor
VISA	Suzanne Nora Johnson	director	Brookings Institution	trustee	trustee
Panel B: Paul Volcker					
Blackstone Group	Peter G. Peterson	chairman & co-founder	Concord Coalition	director	founding president
Blackstone Group	Peter G. Peterson	chairman & co-founder	Japan Society	life director	life director
Blackstone Group	Peter G. Peterson	chairman & co-founder	Peterson Institute for International Economics	director	chairman
Blackstone Group	Richard E. Salomon	adv. board chair, alt. asset mgt.	Peterson Institute for International Economics	director	director
Capital One	Patrick W. Gross	director	Aspen Institute	lifetime trustee	trustee
CIT Group	James S. McDonald	director	Japan Society	life director	director
Citigroup	Richard D. Parsons	chairman	Obama-Biden economic advisory team	member	member
Citigroup	Robert E. Rubin	director	Concord Coalition	director	director
Citigroup	Anne M. Mulcahy	director	Obama-Biden economic advisory team	member	member
Goldman Sachs	Stephen Friedman	director	Aspen Institute	lifetime trustee	trustee
Goldman Sachs	John C. Whitehead	foundation chairman	Financial Services Volunteer Corps	honorary chairman	co-founder & chairman
Goldman Sachs	John C. Whitehead	foundation chairman	International House	chairman	honorary trustee
Goldman Sachs	Josef Joffe	foundation member	Aspen Institute	lifetime trustee	member
Goldman Sachs	E. Gerald Corrigan	managing director	Group of Thirty	chairman of the board	member
Goldman Sachs	Henry Cornell	managing director	Japan Society	life director	director
JP Morgan Chase	William M. Daley	chairman Midwest division	Obama-Biden economic advisory team	member	member
JP Morgan Chase	William H. Gray III	director	Concord Coalition	director	director
JP Morgan Chase	Andrew D. Crockett	executive committee member	Group of Thirty	chairman of the board	member
JP Morgan Chase	Ernesto Zedillo	int'l advisory board member	Peterson Institute for International Economics	director	director
Moody's	Henry A. McKinnell Jr.	director	Japan Society	life director	life director
Morgan Stanley	Laura D'Andrea Tyson	director	Obama-Biden economic advisory team	member	member
Morgan Stanley	Hutham S. Olayan	director	Peterson Institute for International Economics	director	director
Morgan Stanley	Laura D'Andrea Tyson	director	Peterson Institute for International Economics	director	director
Morgan Stanley	Frederick B. Whittemore	partner/managing director	Aspen Institute	lifetime trustee	trustee
NASDAQ	Merit E. Janow	director	Japan Society	life director	director
NYSE	James S. McDonald	director	Japan Society	life director	director
Panel C: Sheila Bair					
NYSE	Self	senior vice president (former)	NA	NA	NA
Panel D: Jon Corzine					
Bank of New York	Gerald L. Hassell	president	New York Philharmonic	director emeritus	director
Fannie Mae	Philip A. Laskawy	chairman	New York Philharmonic	director emeritus	director
Goldman Sachs	Self	chairman & CEO (former)	NA	NA	NA
Goldman Sachs	John F. W. Rogers	partner & foundation trustee	Corzine's former chief of staff	NA	NA
Lazard	Philip A. Laskawy	director	New York Philharmonic	director emeritus	director
US Bancorp	Jerry W. Levin	director	New York Philharmonic	director emeritus	director

Appendix Table A3

Comparison of Geithner-Connected Firms with Non-Connected Firms

The table compares firms with identifiable connections to Geithner to those with no connections. In Panel A, connected firms are those that were listed on Geithner's schedule during his tenure as president of the New York Fed. In Panel B, connected firms are those with a personal connection to Geithner as identified on muckety.com. In both panels "Base Sample" indicates whether the firm is included in our base sample (by virtue of not being highly correlated to Citigroup). CAR [0,10] is the cumulative abnormal return for the firm surrounding the announcement of Geithner as treasury secretary. Total assets are for the year 2008 from Worldscope.

Panel A: Schedule Connections

On Geithner's Schedule					Not on Geithner's Schedule (25 Largest)		
Firm	Occurrences	Base Sample	CAR [0,10]	Total Assets ($Bn)	Firm	CAR [0,10]	Total Assets ($Bn)
JP MORGAN CHASE & CO.	14	N	0.186	2,175.00	WELLS FARGO & CO	0.124	1,310.00
CITIGROUP INCO.	34	N	0.743	1,938.00	FREDDIE MAC	0.659	835.60
BANK OF AMERICA CORP.	4	N	0.168	1,818.00	US BANCORP	0.078	265.90
FANNIE MAE	1	N	1.008	908.50	SUNTRUST BANKS INCO.	0.200	189.10
THE GOLDMAN SACHS GPIN.	10	N	0.192	876.20	SLM CORP.	0.064	168.80
MORGAN STANLEY	9	N	0.224	658.80	CAPITAL ONE FINL.CORP.	-0.053	165.90
PNC FINL.SVS.GP.INCO.	3	N	0.044	291.10	BB&T CORP.	-0.131	152.00
BANK OF NY.MELLON CORP.	7	Y	-0.095	237.50	REGIONS FINL.CORP.	-0.206	146.20
STATE STREET CORP.	1	Y	0.091	173.60	FIFTH THIRD BANCORP	-0.232	119.50
AMERICAN EXPRESS CO.	2	N	0.029	122.60	KEYCORP	0.062	104.50
NORTHERN TRUST CORP.	1	Y	0.117	82.05	AMERIPRISE FINL.INCO.	0.297	94.67
CME GROUP INCO.	2	Y	0.010	48.16	CIT GROUP INCO.	0.500	80.45
NY.CMTY.BANC.INCO.	2	N	-0.078	32.33	COMERICA INCO.	0.037	67.55
ASTORIA FINL.CORP.	2	N	-0.132	21.98	M&T BK.CORP.	-0.045	65.82
BLACKROCK INCO.	13	Y	0.082	19.91	MARSHALL & ILSLEY CORP.	-0.300	62.34
NYSE EURONEXT	2	N	0.089	13.28	ZIONS BANCORPORATION	-0.255	54.61
THE NASDAQ OMX GP.INCO.	2	Y	0.212	12.05	HUNTINGTON BCSH.INCO.	-0.073	54.35
THE BLACKSTONE GROUP LP.	6	Y	0.345	8.41	HUDSON CITY BANC.INCO.	-0.231	54.09
PROVIDENT FINL.SVS.INCO.	2	Y	-0.145	6.51	CHARLES SCHWAB CORP.	-0.141	51.17
LAZARD LTD.	1	Y	0.126	2.79	MF GLOBAL LTD.	-0.180	49.18
MOODY'S CORP.	2	N	0.114	1.55	E*TRADE FINANCIAL CORP.	0.051	47.50
OCH-ZIFF CAP.MAN.GP.LLC.	1	N	0.107	1.02	DISCOVER FINANCIAL SVS.	0.122	39.20
BEACON FED.BANC.INCORP.	1	Y	0.039	1.02	POPULAR INCO.	-0.194	38.53
FEDERATED INVRS.INCO.	1	Y	0.065	0.85	SYNOVUS FINL.CORP.	-0.031	35.62
EVERCORE PARTNERS INCO.	1	Y	0.485	0.68	FIRST HORIZON NAT. CORP.	-0.124	31.02

Panel B: Personal Connections

Personal Connection to Geithner					No Personal Connection (21 Largest)		
Firm	Connections	Base Sample	CAR [0,10]	Total Assets ($Bn)	Firm	CAR [0,10]	Total Assets ($Bn)
JP MORGAN CHASE & CO.	5	N	0.186	2,175.00	FREDDIE MAC	0.659	835.60
CITIGROUP INCO.	9	N	0.743	1,938.00	US BANCORP	0.078	265.90
BANK OF AMERICA CORP.	1	N	0.168	1,818.00	BANK OF NY.MELLON CORP.	-0.095	237.50
WELLS FARGO & CO	1	N	0.124	1,310.00	SUNTRUST BANKS INCO.	0.200	189.10
FANNIE MAE	1	N	1.008	908.50	STATE STREET CORP.	0.091	173.60
THE GOLDMAN SACHS GPIN.	8	N	0.192	876.20	SLM CORP.	0.064	168.80
MORGAN STANLEY	3	N	0.224	658.80	BB&T CORP.	-0.131	152.00
PNC FINL.SVS.GP.INCO.	1	N	0.044	291.10	REGIONS FINL.CORP.	-0.206	146.20
CAPITAL ONE FINL.CORP.	1	N	-0.053	165.90	FIFTH THIRD BANCORP	-0.232	119.50
AMERICAN EXPRESS CO.	1	N	0.029	122.60	KEYCORP	0.062	104.50
CIT GROUP INCO.	2	Y	0.500	80.45	AMERIPRISE FINL.INCO.	0.297	94.67
M&T BK.CORP.	1	N	-0.045	65.82	NORTHERN TRUST CORP.	0.117	82.05
POPULAR INCO.	1	Y	-0.194	38.53	COMERICA INCO.	0.037	67.55
BLACKROCK INCO.	2	Y	0.082	19.91	MARSHALL & ILSLEY CORP.	-0.300	62.34
NYSE EURONEXT	1	N	0.089	13.28	ZIONS BANCORPORATION	-0.255	54.61
THE NASDAQ OMX GP.INCO.	1	Y	0.212	12.05	HUNTINGTON BCSH.INCO.	-0.073	54.35
FRANKLIN RESOURCES INCO.	1	N	0.046	9.18	HUDSON CITY BANC.INCO.	-0.231	54.09
THE BLACKSTONE GROUP LP.	4	Y	0.345	8.41	CHARLES SCHWAB CORP.	-0.141	51.17
FORTRESS INV.GP.LLC.	1	Y	-0.131	1.17	MF GLOBAL LTD.	-0.180	49.18
CARVER BANCORP INCO.	1	Y	-0.116	0.79	CME GROUP INCO.	0.010	48.16
GAMCO INVESTORS INCO.	1	Y	-0.147	0.67	E*TRADE FINANCIAL CORP.	0.051	47.50

Appendix Table A4
Comparison of New York Firms to Non-New York Firms

The table compares firms in the sample headquartered in New York City with firms in the sample headquartered elsewhere. CAR [0,10] is the cumulative abnormal return for the firm surrounding the announcement of Geithner as treasury secretary. Total assets are for the year 2008 from Worldscope.

New York				Non-New York (Largest 45)		
Firm	Base Sample	CAR [0,10]	Total Assets ($Bn)	Firm	CAR [0,10]	Total Assets ($Bn)
JP MORGAN CHASE & CO.	N	0.186	2,175.00	BANK OF AMERICA CORP.	0.168	1,818.00
CITIGROUP INCO.	N	0.743	1,938.00	WELLS FARGO & CO	0.124	1,310.00
THE GOLDMAN SACHS GPIN.	N	0.192	876.20	FANNIE MAE	1.008	908.50
MORGAN STANLEY	N	0.224	658.80	FREDDIE MAC	0.659	835.60
BANK OF NY.MELLON CORP.	Y	-0.095	237.50	PNC FINL.SVS.GP.INCO.	0.044	291.10
AMERICAN EXPRESS CO.	N	0.029	122.60	US BANCORP	0.078	265.90
CIT GROUP INCO.	Y	0.500	80.45	SUNTRUST BANKS INCO.	0.200	189.10
E*TRADE FINANCIAL CORP.	Y	0.051	47.50	STATE STREET CORP.	0.091	173.60
BLACKROCK INCO.	Y	0.082	19.91	SLM CORP.	0.064	168.80
JEFFERIES GP.INCO.	N	0.071	19.60	CAPITAL ONE FINL.CORP.	-0.053	165.90
ICAHN ENTERPRISES LP.	Y	0.764	18.82	BB&T CORP.	-0.131	152.00
NYSE EURONEXT	N	0.089	13.28	REGIONS FINL.CORP.	-0.206	146.20
THE NASDAQ OMX GP.INCO.	Y	0.212	12.05	FIFTH THIRD BANCORP	-0.232	119.50
THE BLACKSTONE GROUP LP.	Y	0.345	8.41	KEYCORP	0.062	104.50
SIGNATURE BK.	Y	-0.064	7.11	AMERIPRISE FINL.INCO.	0.297	94.67
LABRANCHE & CO.INCO.	Y	0.127	3.73	NORTHERN TRUST CORP.	0.117	82.05
INTERVEST BCSH.CORP.	Y	-0.259	2.26	COMERICA INCO.	0.037	67.55
STERLING BANC.	Y	-0.137	2.19	M&T BK.CORP.	-0.045	65.82
FINL.FED.CORP.	Y	0.277	1.94	MARSHALL & ILSLEY CORP.	-0.300	62.34
INV.TECH.GP.	Y	0.164	1.68	ZIONS BANCORPORATION	-0.255	54.61
ALLBERN.HLDG.LP.	Y	0.401	1.60	HUNTINGTON BCSH.INCO.	-0.073	54.35
MOODY'S CORP.	Y	0.114	1.55	HUDSON CITY BANC.INCO.	-0.231	54.09
NAT.FINL.PTNS.CORP.	Y	0.989	1.52	CHARLES SCHWAB CORP.	-0.141	51.17
FORTRESS INV.GP.LLC.	Y	-0.131	1.17	MF GLOBAL LTD.	-0.180	49.18
GFI GROUP INCO.	Y	-0.278	1.09	CME GROUP INCO.	0.010	48.16
BGC PARTNERS INCO.	Y	0.328	1.07	DISCOVER FINANCIAL SVS.	0.122	39.20
OCH-ZIFF CAP.MAN.GP.LLC.	Y	0.107	1.02	POPULAR INCO.	-0.194	38.53
MSCI INCO.	Y	0.090	1.02	SYNOVUS FINL.CORP.	-0.031	35.62
BERKSHIRE BANCORP INCO.	Y	-0.190	0.91	NY.CMTY.BANC.INCO.	-0.078	32.33
CARVER BANCORP INCO.	Y	-0.116	0.79	FIRST HORIZON NAT.CORP.	-0.124	31.02
BROADPOINT SECS.GP.INCO.	Y	0.204	0.69	THE STUDENT LN.CORP.	0.321	28.14
EVERCORE PARTNERS INCO.	Y	0.485	0.68	INTACT.BCK.GP.INCORP.	0.073	28.00
MEDALLION FINL.CORP.	Y	0.146	0.65	THE COLO.BANCGROUP INCO.	0.020	25.50
KBW INCO.	Y	-0.382	0.57	ASSOCIATED BANC-CORP	-0.056	24.19
GLG PARTNERS INCO.	Y	-0.012	0.49	BOK FINL.CORP.	-0.065	22.73
DUFF & PHELPS CORP.	Y	0.438	0.35	ASTORIA FINL.CORP.	-0.132	21.98
COHEN & STEERS INCO.	Y	0.204	0.28	RAYMOND JAMES FINL.INCO.	-0.020	20.62
GREENHILL & CO.INCO.	Y	-0.064	0.23	PEOPLES UTD.FINL.INCO.	-0.174	20.17
MARKETAXESS HDG.INCO.	Y	0.040	0.21	FIRST BANC.	-0.093	19.49
COWEN GROUP INCORPORATED	Y	0.057	0.20	CAPITALSOURCE INCO.	0.135	18.41
CMS BANCORP INCO.	Y	0.100	0.20	COMMERCE BCSH.INCO.	-0.106	17.53
PZENA INV.MAN.INCO.	Y	-0.151	0.06	WEBSTER FINL.CORP.	0.067	17.39
EPOCH HOLDING CORP.	Y	0.030	0.05	FIRST CTZN.BCSH.INCO.	-0.053	16.75
RODMAN & RENSHAW CAP.GP.	Y	0.217	0.05	TCF FINANCIAL CORP.	-0.026	16.74
SIEBERT FINANCIAL CORP.	Y	-0.031	0.04	AMERICREDIT CORP.	0.363	16.23

Appendix Table A5
Other Non-New York Firms

The table lists firms in the sample not listed in Appendix Table A4. The firms are listed in descending order of size (total assets).

City National	Amcore Financial	Wilshire Banc.	Stewart Info.Svs.	Dollar Financial	Comm Bancorp	Greene County Banc.
Fulton Financial	Fed.Agri.Mge.	First Regl.Banc.	Oritani Financial	Legacy Bancorp	Landmark Bancorp	LSB Finl.
TD Ameritrade	Irwin Finl.	Fcstone Group	Firstbank	Nat.Bankshares	Central Jersey Bancorp	River Valley Bancorp
Cullen Fo.Bankers	First Merchants	Ameris Bancorp	Centrue Finl.	Fox Chase Bancorp	Monarch Finl.Hdg.	WSB Financial Gp.
Ictl.Ex.	Pncl.Finl.Ptns.	Lakeland Finl.	Horizon Financial	Eaton Vance	Parke Bancorp	Summit State Bank
Valley National Bancorp	PMI Group	Camden Nat.	Mutualfirst Finl.	Patriot Nat.BanInc	Northeast Bancorp	Coml.Nat.Finl.
Flagstar Bancorp	Banner	Seacoast Bkg.Fla.	Alliance Finl.	Washington Banking Co.	Pamrapo Ban	Patriot Cap.Fdg.
Susquehanna Bcsh.	1st Source	First Finl.	Peapack-Gladstone Finl.	Clifton Svg.Banc.	Sun American Bancorp	Citizens First
Sth.Finl.Gp.	First Busey	Cascade Bancorp	PAB Bankshares	Peoples Finl.	Capital Southwest	Pathfinder Banc.
UCBH Holdings	S & T Bancorp	Enter.Finl.Svs.	SEI Invs.Co.	Unity Bancorp	Cmty.Vly.Banc.	Liberty Bancorp
Bancorpsouth	Taylor Cap.Gp.	United Wstn.Banc.	Mrch.Bcsh.	WGNB	Cowlitz Bancorporation	Rome Bancorp
Sterling Finl.	Frontier Finl.	Viewpoint Financial Gp.	Centerstate Bks.of Fla.	Riverview Bancorp	BCB Bancorp	Cheviot Finl.
KKR Financial Hdg.Llc	Dime Cmty.Bcsh.	Mercantile Bk.	Sierra Bancorp	Cmty.Bk.Shs.of Indna.	Alliance Bksh.	Glen Burnie Bancorp
Whitney Holding	Benl.Mut.Banc.	Farmers Capital Bk.	City Bank	1st.Sth.Banc.	Vil.Bk.&.Tst.Finl.	Firstcity Finl.
East Ws.Banc.	Westamerica Ban	Macatawa Bank	Horizon Banc.	North Vly.Ban	Central Banc.	Louisiana Bancorp
Wilmington Tst.	Flushing Finl.	Penn.Com.Banc.	Pulaski Financial	1st.Pactrust Banc.	Community Partners Banc.	Oak Ridge Finl.Svs.
Legg Mason	Chemical Finl.	First Cmty.Bcsh.	Ctzn.& Nthn.	PVF Capital	Pico Hdg.	Old Line Bcsh.
Wash.Fed.	Bancfirst	Banctrust Finl.Gp.	First Mariner Ban	Ames Nat.	American River Bksh.	MSB Financial
Cathay Gen.Bancorp	Hanmi Finl.	Univest of Penn.	Hawthorn Bcsh.	K-Fed Bancorp	First Fed.Bksh.	Ezcorp
Firstmerit	First Finl.Banc.	Kearny Financial	First Security Gp.	Federated Invrs.	Community Ctl.Bk.	Somerset Hills Banc.
UMB Finl.	Renasant	Ocwen Finl.	The 1st.of Lng.Isl.	C&F Finl.	Encore Cap.Gp.	Sanders Mos.Har.Gp.
TFS Financial	Heartland Finl.Usa	Newbridge Bancorp	Colony Bankcorp	SI Finl.Gp.	The Bank Holdings	Monarch Cmty.Banc.
Bank of Hawaii	Independent Bk.	Fnb United	First Financial Nw.	Nwh.Thrift Bcsh.	1st Cnt.Ban	Thomas Weisel Ptns.Gpin.
Wintrust Financial	Sun Bancorp	Center Finl.	Piper Jaffray Cos.	Bridge Bancorp	Hampden Bancorp	Amer.Phys.Ser.Gp.
Doral Financial	Advanta	Trico Bcsh.	Tennessee Com.Banc.	Tradestation Gp.	Oneida Finl.	Bay National
Privatebancorp	Midwest Banc Hdg.	Peoples Banc.	1st.Marblehead	Harleysville Svg.Finl.	Southcoast Finl.	Atlantic Bancgroup
SVB Financial Group	Trustco Bk.Ny	ESB Finl.	Bofi Holding	Monroe Ban	Colonial Bksh.	First Csh.Finl.Svs.
Trustmark	Ampal-Amer.Isr.	Cadence Financial	German Amer.Banc.	Ctzn.Sth.Bkg.	Evans Bancorp	Optimumbank Hdg.
Pacific Cap.Banc.	Bank Mut.	Citizens 1st.Banc.	Cash Am.Intl.	Rainier Pac.Finl.Gp.Inco	Chicopee Bancorp	Cmty.Shores Bk.
Nat.Penn Bcsh.	Wsfs Finl.	1st.Defiance Finl.	Appalachian Bcsh.	First Nat.Bcsh.	NB&T Finl.Gp.	Kentucky First Fed.Banc.
1st.Niag.Finl.Gp.	First Ste.Ban	Knight Capital Gp.	Abington Bancorp	Hingham Instn.For Svg.	First Key.Finl.	1st.Fed.of Nthn.Mi.Banc.
Mgic Investment	Integra Bank	Finl.Institutions	Harrington Ws.Fgp.	Herit.Oaks Banc.	Magyar Bancorp	Bank of Soca.
Franklin Resources	First Pl.Finl.	Amer.West Ban	First Cal.Finl.Gp.	Marlin Bus.Svs.	Norwood Finl.	Mayflower Bancorp
Prosperity Bcsh.	Janus Capital Gp.	Smithtown Banc.	Enterprise Bancorp	Primus Guaranty Ltd.	Heritage Financial Group	FPB Bancorp
MB Finl.	Tierone	Oppenheimer Hdg.	Pac.Merc.Ban	1st.Fed.Bcsh.of Ark.Inco	1st.Cmty.Bk.of Am.	Safegd.Scientifics
Umpqua Hdg.	Sandy Spring Banc.	Oceanfirst Finl.	Royal Bcsh.of Penn.	Amer.Nat.Bksh.	PSB Holdings	GS Financial
Utd.Cmty.Bks.	Equifax	Parkvale Finl.	Princeton Nat.Banc.	Community Capital	Brooklyn Fed.Banc.	Park Bancorp
First Midwest Banc.	Affiliated Mgrs.Gp.Inc	Sthn.Cmty.Finl.	Bank of Granite	Ohio Valley Banc	Elmira Svg.Bk.Fsb	Triangle Capital
FNB	Bank of The Ozarks	The Bancorp	Bryn Mawr Bank	United Panam Finl.	Citizens Cmty.Banc.	VSB Bancorp NY
Corus Bankshares	First Finl.Bksh.	Northfield Bancorp	Credit Accep.	Waddell & Reed Finl.Inc	Central Va.Bksh.	Intersections
Newalliance Bcsh.	Townebank	Fidelity Sthn.	HMN Financial	Bank of Commerce Hdg.	North Ctl.Bcsh.	Oh.Legacy
Fid.Nat.Financial	Columbia Bkg.Sys.	Cardinal Finl.	LNB BanInc	Citizens Co.	First State Finl.	Nicholas Financial
Capitol Fed.Finl.	Hampton Roads Bksh.	Ste.Banc.	Triad Gty.	LSB	Asta Funding	First Bankshares
Utd.Bksh.	Old Second Banc.	Arrow Finl.	Columbia Bancorp	United Security Bcsh.	World Acceptance	Ffd Finl.
Santander Bancorp	Provident Ny.Banc.	Porter Bancorp	CFS Bancorp	Meta Financial Gp.	Ameriana Bancorp	Main Street Cap.
Old Nat.Banc.(Indiana)	Wash.Tst.Banc.	Capital Bk.	Dearborn Banc.	Auburn Nat.BanInc	Plumas Banc.	Commercefirst Banc.
Radian Gp.	First Finl.Hdg.	Cascade Finl.	Westfield Finl.	Ctl.Vly.Cmty.Banc.	Mackinac Financial	Bank of Mckenney
Bstn.Priv.Finl.Hdg.	Independent Bk.	Summit Finl.Gp.	Pacific Cont.	TF Financial	Adv.Am.Csh.Adv.Cntrs.	Carolina Trust Bank
Hancock Holding Co.	Community Tst.Banc.	Provident Finl.Hdg.	Roma Financial	Pac.Premier Banc.	Wsb Holdings	Am.1st.Tax Exem.Invrs.Lp
Northwest Banc.	Green Bankshares	Sy Bancorp	Cmwl.Bksh.	Premier Finl.Bancorp Inc	Scty.Nat.Finl.	Osage Bancshares
CVB Financial	Simmons First Nat.	First Utd.	First Ctzn.Banc	Home Federal Banc.	United Bancorp Oh.	QC Holdings
Moneygram Intl.	Mainsource Finl.Gp.	TIB Finl.	Wainwright Bk.& Tst.Co.	Fidelity Ban	Sussex Bancorp	JMP Group
Provident Bksh.	Southwest Bancorp	QCR Hdg.	Bank of Marin Bancorp	Resource Am.	Intl.Assets	Investors Title Co.
Provident Finl.Svs.	Security Bank	First M & F	Shore Bcsh.	Tidelands Bcsh.	Union Bankshares	Microfinancial
1st.Cmwl.Finl.	Eurobancshares	Consumer Prtf.Svs.	Eastern Va.Bksh.	Peoples Cmty.Banc.	Jacksonvl.Banc.Fla.	Cougar Biotech.
Investors Bancorp	Lazard Ltd.	Suffolk Banc.	CNB Finl.	Access National	First Cap.Bancorp	Arbinet Thexchange
Oriental Finl.Gp.	SCBT Financial	Encore Bancshares	First Finl.Ser.	Codorus Vly.Banc.	Prvt.Cmty.Bcsh.	Westwood Hdg.Gp.
Mastercard	First Bancorp	Bnc Bancorp	Beacon Fed.Banc.In	Tower Finl.	Newport Bancorp	US Global Invrs.
Bankatlantic Banc.	T Rowe Price Gp.	Metrocorp Bcsh.	Center Banc.	Sthn.First Bcsh.	Sthn.Nat.Banc.of Va.Inco	Dia.Hill Inv.Gp.
Capitol Banc.Ltd.	Va.Com.Bancorp	Bankfinancial	Essa Bancorp	Timberland Banc.	Ntheast.Cmty.Banc.	Paulson Cap.
Iberiabank	Southside Bcsh.	Mbt Finl.	Northrim Bancorp	Ocean Shore Co.	WVS Finl.	Arrowhead Resh.
Western Union Co.(The)	Cobiz Financial	West Ban	Atl.Sthn.Finl.Gp.	Gamco Investors	All.Banc.of (Penn.)	Kent Finl.Svs.
Glacier Bancorp	Berk.Hills Banc.	Bank of Florida	Atlantic Cst.Fed.	Guaranty Fed.Bcsh.	Southern Mo.Banc.	Benjamin Frank.Banc.Inco
Penson Worldwide	Nara Banc.	Compucredit	Severn Banc.	Bch.First Nat.Bcsh.	Abigail Adams Nat.Banc.	Bankunited Finl.
Harleysville Nat.	Great Sthn.Bancorp	Banc.Rhode Isl.	Middleburg Finl.	Prtf.Rec.Assocs.	Britton & Koontz Cap.	Community Bancorp
Central Pac.Finl.	Lakeland Bancorp	Rockville Finl.	Compass Diversified Hdg.	Rurban Finl.	Asset Accep.Cap.	W Holding Company
NBT Bancorp	United Cmty.Finl.	Yadkin Valley Finl.	Optionsxpress Hdg.	Community West Bcsh.	Broadway Financial	Amer.Cmty.Bcsh.
Wesbanco	Brookline Bancorp	Stifel Finl.	Hopfed Bancorp	First Clover Leaf Finl.	Lake Shore Bancorp	Cape Fear Bank
Western All.Ban	Home Bancshares	NASB Finl.	Crescent Financial	Penns Woods Banc.	Wayne Svg.Bcsh.	Vineyard National Banc.
Cmty.Bk.Sy.	Union Bankshares	Heritage Com.	Ameriserv Finl.Inc	First Cmty.	Carrollton Banc.	
Anchor Banc.Wi.	Newstar Financial	Temecula Vly.Banc.	Coop.Bankshares	Amer.Bancorp of Nj.	Jeffersonville Bancorp	
Texas Capital Bcsh.	City Co.	Eagle Banc.	Rep.First Banc.Inco	Carolina Bk.Hdg.	Calamos Asset Man.	
SWS Gp.	West Coast Bancorp	Premier West Bancorp	Bridge Cap.Hdg.	Utd.Bcsh.Ohio	Cal.1st.Nat.Bancorp	
Sterling Bcsh.	Cap.City Bk.Gp.	Preferred Bank	Heritage Financial	New Century Banc.	United Community Bancorp	