

The Determinants of Congressional Voting on the Emergency
Economic Stabilization Act of 2008

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Abstract

The purpose of this paper is to discover the determinants of Congressional voting in the House on the two different versions the Emergency Economic Stabilization Act of 2008, and to determine what caused Congressmen to switch their votes from the first bill to the second. Using a Probit model and independent variables representing the personal, this study finds that ideology, political contributions, “closeness” of the 2008 electoral race, other personal and political characteristics of House members, and other demographic characteristics of their home districts were important in determining the vote; the forces driving vote switching were more difficult to ascertain.

I. Introduction

The purpose of this study is to discover the determinants of Congressional voting on the Emergency Economic Stabilization Act of 2008, one of the most widely-discussed and controversial political issues in recent history. The Emergency Economic Stabilization Act of 2008, known also as the EESA and popularly as the financial bailout bill or the financial rescue bill, has been lauded by some as a quick and decisive Congressional response to a critically urgent issue, a response that will loosen up credit markets and prevent catastrophe by ensuring that business has access to the credit it needs to continue normal operations. On the other hand, it has also faced substantial criticism: as a spectacular, unwarranted waste of taxpayer dollars, as an undeserved bailout of reckless Wall Street financial firms that does nothing to help people struggling with impending foreclosure, as a creator of moral hazard and adverse selection, or in its final realization, as a pork-laden smorgasbord of perks for key members of the House whose votes were being courted. On an issue that so polarized public opinion and may have had an important effect on the 2008 elections, it is both timely and practical to ask the question: what motivated Congress to reject this bill once, panicking investors and sending the Dow tumbling almost 800 points in a single day, only to come back and pass it several days later? Was Congress acting based on a well-reasoned concern that the bill was the best thing to prevent the crisis from deepening? Or was Congress acting on impulse or in self-interest? The ramifications of this bill have yet to completely play out, and though many observers have monitored the process of its actualization closely, many still do not yet really know what to think. Understanding why the bill was passed will

shed light on the appropriateness and quality of Congress' \$700 billion solution to the problems facing U.S. credit markets.

The Emergency Economic Stabilization Act of 2008 was conceived in the wake of an worsening shortage of liquidity and swelling investor anxiety, which were precipitated by the collapse of residential housing prices in late 2007/early 2008, and made worse by the collapse of several major financial firms, starting with Bear Stearns in March of 2008 and followed by mortgage giants Freddie Mac and Fannie Mae, insurance giant AIG, and investment banks Lehman Brothers and Merrill Lynch. As the liquidity crisis escalated, federal regulators and observers feared that illiquidity in the capital markets would reach a critical level, spilling over out of the financial sector by impeding the ability of non-financial firms to access the credit needed to continue investment and go about day-to-day business. Secretary Treasury Henry Paulson thus proposed that Congress give the Treasury the emergency authority to establish the Troubled Assets Relief Program (TARP) to purchase \$700 billion of what were termed "illiquid assets," thereby loosening up the credit market by restoring firms' who held these assets ability to lend.

Secretary Paulson's original proposal was remarkable in its succinctness: it was only 3 pages long (New York Times, 20 Sep 2008). Immediately, it sparked a firestorm of debate, as few members of either the Senate or the House were willing to give the Treasury *carte blanche* to spend \$700 billion as it saw fit, with little oversight or restriction. As Sen. Jim Bunning (R-KY) said, "It will not help struggling homeowners pay their mortgages. It will not bring a halt to the slide in home prices" (Isidore 2008). After some debate, a new version of the bill was eventually crafted in the House: at 110

pages, it was much longer and assuaged some of the concerns of Congressmen who had objected to the bill's lack of provisions regarding executive compensation, assistance to homeowners, or Congressional oversight. President Bush gave a speech on national television imploring Congress and the American public to put their support behind the bill; both Barack Obama and John McCain (the Democratic and Republican candidates for president in 2008) assured the nation, albeit perhaps somewhat tepidly, of their support, and of the need to transcend partisan differences and pass this bill. In addition to the Bush administration, the Democratic leadership on the floors of both the Senate and House supported the bill. However, the general public outcry over what was perceived as a 5%-of-GDP-bailout, whose direct beneficiaries were Wall Street financial firms and not small businesses or homeowners, was not to be underestimated.

Though voting went long into the night of September 29, eventually both parties came to realize that there were not enough votes to pass the agreement, and it was rejected. The following day the Dow dropped 777 points on a single day, or 8%, the largest single-day point drop in history. Most everyone seemed to agree, if not before then at least after this unprecedented sell-off, that some sort of response to the financial crisis was necessary: Congress could not accept the failure of its rescue package. Representative John Boehner (R-OH) told the New York Times that he could not remember a time when the collective effort of the leadership in both parties was not enough to pass a bill. Nancy Pelosi was quoted as saying that "this result cannot stand" and Rep. John Yarmuth (D-KY) said that "I think we will be back in a couple of days with a proposal more palatable to more members" (Hulse and Herszenhorn 2008). The Senate went back to the drawing board, and using an old, stalled bill as a vehicle, it

passed a similar \$700 billion bailout again with a vote of 74-25. Inside the bill, besides the EESA, were the Energy Improvement and Extension Act of 2008, and the Tax Extenders and Alternative Minimum Tax Relief Act of 2008. Notably, the Senate new bill was about 450 pages long, compared to the prior version's 110 pages. The estimated cost of the additional portions of the bill not associated with the Emergency Economic Stabilization Act was about \$110 billion over the next 10 years (Congressional Budget Office).

There are several possible intuitive explanations as to why the first version of the EESA failed, while the second succeeded. One of these is the record-setting stock market devaluation that occurred immediately following the failure of the first bill. When markets closed on Monday, September the 29th, in addition to the drop in the Dow Jones Industrial Average had, the S&P 500 had lost 107 points (8.8% of its value) and the NASDAQ had declined 199 points (9.1%). The VIX volatility index also spiked to 47 from 35 in a single day, and the instability that ensued after the first bill's failure likely contributed (among other events happening in the month) to the Consumer Confidence Index's October all-time record low of 38 (Conference Board). In general, there was a widespread state of panic regarding the possibility that credit markets might completely freeze. These reactions may have functioned as a signal from the market and its consumers to representatives about the truly urgent nature of this bill. Such a signal might have encouraged these representatives to overlook perceived minor imperfections in the bill's details or restrain their ideological opposition, and pass it anyway due to the immediacy of the problem it addressed.

Another possible explanation for the difference in voting was the difference between the two versions of the Act. In addition to a modified version of the EESA, the second version of the rescue package contained two other unrelated acts tacked on and labeled as Divisions B and C, respectively. Division B was called the “Energy Improvement and Extension Act of 2008” and provided numerous tax breaks for investment in various renewable energy sources (i.e. wind, solar, microturbines) as well as for investment in carbon sequestration technologies, fuel cells, and home energy efficiency. Division C bore the title “Tax Extenders and Alternative Minimum Tax Relief Act of 2008,” and unlike the Energy Improvement Act, had no central idea or cohesive purpose but instead granted tax breaks to a seemingly random assortment of groups (these are listed in Table 4). Though these two pieces of legislation contained provisions entirely unrelated to the financial “rescue package,” and though they were widely derided as Congressional pork, they may have sufficiently swayed Congressional stakeholders at the margin and caused the bill to pass.

This paper will attempt to answer the question of what the determinants of Congressional voting on these two bills were. It will look at the determinants of voting on each bill individually, and then consider the 59 representatives in the House who changed their votes from one bill to the next, bearing in mind the differences between the bills along with other possible explanations. The review of the literature that will inform this analysis is outlined in section II. Section III describes the theoretical framework; Section IV summarizes the data to be analyzed and Section V specifies the equations to be estimated. Section VI presents the results of the analysis, and Section VII concludes.

II. Literature Review

Due to its freshness, as of the time of writing there have not been any published papers on Congressional voting for the Emergency Economic Stabilization Act of 2008 itself. Nolan McCarty has analyzed some of the determinants of Congressional voting on H.R. 3997 (i.e. the first iteration of the rescue package) in a post on the Election 2008 Blog, maintained by the Center for the Study of Democratic Politics (CSDP) at Princeton University. However, McCarty's regression looks only at the first rescue package, not the difference between its two different incarnations, and McCarty uses a different set of regressors from the set used by this study. Ultimately, the goal of McCarty's analysis is also different, aiming to find the determinants of Congressional voting but not attempting to say anything about the determinants of Congressional vote switching from the first bill to the second. Nevertheless, the CSDP Election 2008 blog has proven very useful to my analysis and provided a substantial motivation for my choice of right-hand variables.

The recentness of the EESA notwithstanding, there is a substantial body of existing literature dealing with the determinants of Congressional voting on other pieces of legislation. By and large, these studies have all considered as a common denominator three primary factors which influence voting in Congress: the personal ideology of the Congressman, the demographic characteristics of his or her constituency, and financial contributions toward re-election campaigns from special interest groups.

Denzau and Munger (1986) contribute to the theoretical literature on the determinants of Congressional voting by developing a model of Congressional behavior that coalesces smoothly with that of Kau and Rubin (1982). They model three different types of agents: Congressmen, interest groups, and voters. Congressmen are constructed

at vote maximizers, constrained by a limited supply of time and staff resources to contribute to the demands of constituents and supply favorable policy to interest groups. Interest groups are non-voting but can contribute financial resources to a Congressman's re-election campaign; voters are assumed to supply only votes. The price of policy, under this model, depends on the productivity of the Congressman in the political process: more productive Congressmen will charge a lower price for supply of favorable policy. Denzau and Munger set the theoretical underpinnings of the causal relationship between special interest campaign contributions, Congressional action, and voter decision, on which empirical studies such as this one rely.

Among empirical studies, Frenreis and Waterman (1985) do one of the earliest studies quantitatively examining the impact of PAC contributions to re-election campaigns on Senate voting. They find that contributions from PACs were a significant factor in the determination of voting. Looking specifically at a bill dealing with regulation of the trucking industry, the 1980 Motor Carrier Act, Frenreis and Waterman separate out the effect of PAC contributions from what they see as three other primary significant determinants of voting: ideology, constituency, and party affiliation. As there were four different votes on this act over the course of its legislative life, Frenreis and Waterman are able to deal with the different votes by summing the number of times a Senator voted "yea" (i.e. in favor of deregulation) and creating a 0-4 scale of each Senator's level of support for trucking deregulation. Though it deals with trucking regulation, Frenreis and Waterman's treatment of legislators' behavior on multiple bills is important as it informs the inter-bill comparison this study attempts.

Baldwin and Magee (2000) analyze voting in the House of Representatives on three major pieces of trade legislation: the North American Free Trade Agreement (NAFTA), the Uruguay Round of the General Agreement on Trade and Tariffs (GATT), and the provision of most favored nation status to China. Their model takes into account an array of factors: predicted constituency support for trade liberalization under both the Heckscher-Ohlin and the Ricardo-Viner trade models, the ideological goals of a politician or the ideological tendencies of his constituency, and campaign contributions from PACs that represent union interests compared with PACs that represent business interests, finding all of these factors to be significant.

Fordham and McKeown (2003) investigate the determinants of Congressional roll-call voting on five trade bills, defining interest groups by industry with the Standard Industrial Classification, and furthermore including party affiliation, ideology (using the same DW-NOMINATE measure which this study employs), and factor endowments in the home district as regressors. Specifically, Fordham and McKeown depart from other similar studies in their treatment of constituency interest groups. They emphasize the importance of “non-geographic” constituency interest groups and build a model that accounts for complexity in the set of optimal positions a Congressman could take. Fordham and McKeown then apply this model to five votes on trade bills.

Adams, Gokcekus, Grabowski, and Tower (2005) analyze roll-call voting on the Pharmaceutical Market Access Act of 2003, which made it legal for Americans to re-import prescription drugs into the United States from foreign countries where they could be bought at lower cost, under some restrictions. Adams et al. identify four major groups as the principal agents who had a stake in the outcome of the debate on the act:

pharmaceutical companies, seniors, HMOs, and congressional districts which bordered Canada or Mexico. Using the party affiliation, campaign contributions from the first three of these groups, and demographic statistics on these same groups, Adams et. al. find a statistically significant effect of campaign contributions on the vote on this act, a significant effect for the presence of a border with Canada or Mexico, for the proportion of seniors in the district, and for the proportion of people employed by pharmaceutical companies.

Similar to Adams, et al. (2005), Abetti (2008) examines the patterns of Congressional voting on the Dominican Republic - Central America Free Trade Agreement (DR-CAFTA), a multinational free trade agreement similar to the well-known NAFTA. Like Adams, et al. she identifies some of the political players with the largest stake in this bill: business groups, organized labor, and environmental groups. Using business and labor PAC contributions in 2005, AFL-CIO and LCV ratings of Congressmen, demographic factors and a few other regressors, Abetti finds that while targeted environmental lobbying failed to produce statistically significant differences in Congressional voting behavior on DR-CAFTA, financial contributions from business and labor PACs did.

This literature is certainly not unanimous as to the significance of special interest contributions: while in some cases analysis has shown that financial contributions from special interests are significant, in other cases these contributions have not affected the outcome of a bill in a significant way. Only two of empirical studies out of eight in Kau and Rubin (1982) found that campaign contributions had a significant effect on Congressional voting outcomes; Welch (1982), Wright (1985), and Grenzke (1989) also

do not find an effect for PAC contributions on Congressional voting. Chappell (1982) finds some evidence for an effect using a standard Probit model, but under a more specialized model taking into account the endogeneity of contributions, the evidence becomes weaker; ideology was a much more significant determining factor. The likely interpretation of these conflicting results is that PAC contributions will play a role of variable importance, depending on where a bill falls on the ideological spectrum or in the ideological space.

Some of the aforementioned studies on the determinants of Congressional voting (C.g. Kau and Rubin 1982, Chappell 1982) employ a model that accounts for a two-way, endogenous causal relationship between PAC contributions or district demographics and Congressional voting. Contributions from PACs may influence Congressmen when a vote reaches the floor, but a Congressman's actions when votes reach the floor also endogenously influence PAC contributions. These studies differ as to the variables they find most significant. Whether or not it is important, the time depth of this endogenous relationship seems to be limited: Lowery (2004) uses time lags between contributions and votes to show that the relationship is not lead or lag, but contemporaneous.

Similarly, Hersch, Netter, and Pope (2008) use a technique from finance to show that campaign contributions are generally for short-term ends, and do not serve to build up "political capital" that can be later tapped into. Thus, I posit that a simple Probit regression with ideology, demographics, and PAC contributions (among other variables) on the right-hand side will suffice for my purposes. This is largely because such an unprecedented, 700-billion-dollar crisis as the one faced by the financial sector could hardly have been foreseen *a priori* during the last election cycle, or even in the months

leading up to it. It is thus rather unlikely that either votes or dollars could have been endogenously allocated based on how voters or interest groups expected a Congressman would react to the crisis, since it was not foreseen (or only foreseen in a very non-specific way).

This study will contribute to the existing literature by applying a similar political economy model as these prior studies have used, but to a controversial new bill, and by using a different set of regressors that are expected to be idiosyncratically relevant in determining Congressional behavior on this bill. Should my analysis find significant relationships between these regressors and voting on the EESA, it would shed some light on the reasons behind the original failure and subsequent passage of what is perhaps one of the most important pieces of legislation the 110th Congress will pass. This in turn would quantify and demystify the things done to ensure the bill's passage, allowing for future possible analysis of whether the potential stabilizing benefits of the EESA are worth the cost. Additionally, which determinants of Congressional voting behavior on this bill turn out to be the most significant will suggest something about Congressmen's true attitudes toward the bill and their motivations when voting on it: did they have the best long-term interest of the country in mind, or were they acting based on more short-term, personal motivations?

III. Theoretical Framework

This analysis is rooted in the identification of relevant agents in the debate surrounding this rescue package: politicians who were facing an election a month in the future, the financial services industry, homeowners facing mortgage troubles or who were

hit hard by the real estate crunch, and taxpayers. However, I do not simply look at certain agents with a stake in this bill, but rather abstract away from the agents themselves to consider instead the perceptions of these agents' preferences in the minds of Congressmen. For the Emergency Economic Stabilization Act, these perceptions are more important because the legislation in question was passed in an abnormally hurried and urgent way, leaving Congressmen little time to strategize and putting them between the rock of thousands of angry letters and phone calls from opposing constituents, and the hard place of the dire warnings coming from the Bush Administration, the Treasury, Wall Street, and organizations such as the U.S. Chamber of Commerce (2008). In addition, due to the worsening recession and the connection between non-clearing credit markets and the broader economy, the list of agents with a stake in the EESA in a broader sense is comprised of everyone, at least in perception if not also in reality. Variables such as foreclosure rates, contributions from financial PACs, home district demographics, and the closeness of the upcoming 2008 House elections in effect capture everyone in their scope.

The principal econometric technique used in this paper is a simple Probit model. The Probit model is well-suited to regressions where the dependent variable is binary (such as this case, where it is a binary for nay and yea, and in a second regression it is binary for a vote change and no vote change), as it uses cumulative standard normal distribution function to relate the independent variables to the binary outcome. Since the binary dependent variable is being interpreted as a probability, such a technique prevents anomalies that would result from the use of a standard linear regression; namely, probabilities not between zero and one at the extreme ends of the independent variables.

Probit regression is a standard and widely-employed model in studies on Congressional voting.

IV. Data

This study takes into account data from a wide array of sources. Table 1 outlines the data under consideration and lists the data source for each. Most of these variables have not needed altering or adjusting; they have been matched by the first name, last name, and/or Congressional district, where applicable. Tables 2.1 and 2.2 present summary statistics on the characteristics of the Representatives who voted “yea” for the first and second versions of the Emergency Economic Stabilization Act, respectively, as compared to the Congressional average. Table 3 contains summary statistics for the group of 59 Representatives who switched their votes from “nay” to “yea” from the first vote to the second. More precise discussion on the specification of the variables found in Tables 1 through 3 is found in Section V. Finally, Table 4 lists the beneficiaries of the two acts included in the same bill as the second version of the EESA: the Energy Improvement and Extension Act of 2008 (Division B) and the Tax Extenders and Alternative Minimum Tax Relief Act of 2008 (Division C).

TABLE 1
VARIABLES AND DATA SOURCES

VARIABLE	SOURCE
Representative name	House of Representatives website (house.gov)
Ideology	DW_NOMINATE scores
Party affiliation	House of Representatives website (house.gov)
House vote RC 674 (1 st rescue bill)	Office of the Clerk, U.S. House of Representatives (http://clerk.house.gov/evs/2008/roll674.xml)
House vote RC 681 (2 nd rescue bill)	Office of the Clerk, U.S. House of Representatives (http://clerk.house.gov/evs/2008/roll674.xml)
Contributions from PACs representing the “financial services” sector	Center for Responsive Politics (http://www.opensecrets.org/)
Foreclosure rates by district	Hotpads.com Real Estate Search (http://hotpads.com/pages/election-2008/congressional-districts-1-50.htm)
“Closeness” of Congressional races	Cook Political Report (http://www.cookpolitical.com/node/1927)
Retiring Representatives	Wikipedia (http://en.wikipedia.org/wiki/ United_States_House_of_Representatives _elections,_2008#Retiring_Incumbents)
Percent voting with party	The Washington Post (http://projects.washingtonpost.com/ congress/110/house/party-voters/)
Demographics	Proximity One (http://proximityone.com/cd.htm)
<ul style="list-style-type: none"> • Population • % Urban • Median household income • HS graduation rate 	

TABLE 2.1
SUMMARY STATISTICS FOR SELECTED VARIABLES, 110TH CONGRESS, HOUSE OF
REPRESENTATIVES: FIRST VOTE

VARIABLE	HOUSE AVG.	YEA ON RC 674	NAY ON RC 674
Democrat	54.1%	68.3%	41.5%
Ideology (interventionism)	0.014	-0.119	0.131
Ideology (North–South)	0.000	-0.033	0.029
Years in office	10.8	12.5	9.2
Contribution from PACs representing “Financial Services” and individuals giving >\$200 ¹	\$170,801	\$201,774	\$143,073
Foreclosure rate in home district	0.487%	0.479%	0.494%
“Closeness” of 2008 election race on Oct. 25 (before 1 st vote)	0.392	0.307	0.467
Percent of votes with party	93.8%	94.9%	92.7%
Percent living in urban areas	78.9%	81.0%	77.0%
Median household income	\$43,463	\$44,222	\$42,783
Percent below poverty line	12.4%	12.7%	12.0%
Percent with a high school diploma	80.2%	80.1%	80.2%

TABLE 2.2
SUMMARY STATISTICS FOR SELECTED VARIABLES, 110TH CONGRESS, HOUSE OF
REPRESENTATIVES: SECOND VOTE

VARIABLE	HOUSE AVG.	YEA ON RC 681	NAY ON RC 681
Democrat	54.1%	65.4%	36.8%
Ideology (noninterventionist)	0.014	-0.099	0.187
Ideology (civil rights)	0.000	-0.047	0.071
Years in office	10.8	11.6	7.1
Contribution from PACs representing “Financial Services” and individuals giving >\$200	\$170,801	\$188,443	\$143,666
Foreclosure rate in home district	0.487%	0.505%	0.459%
“Closeness” of 2008 election race on Nov. 2 (before 2 nd vote)	0.403	0.335	0.509
Percent of votes with party	93.8%	94.7%	93%
Percent living in urban areas	78.9%	82.2%	74.0%
Median household income	\$43,463	\$43,983	\$42,663
Percent below poverty line	12.4%	12.8%	11.6%
Percent with a high school diploma	80.2%	79.9%	80.5%

¹ Contributions from the “financial services” industry comprises the total of all contributions from PACs representing the following industries and/or firms therein: accounting, commercial banks, credit unions, finance and credit firms, insurance, savings & loans, securities & investment, and real estate.

TABLE 3
SUMMARY STATISTICS FOR SELECTED VARIABLES, 110TH CONGRESS, HOUSE OF
REPRESENTATIVES: CONGRESSMEN WHO CHANGED THEIR VOTE

VARIABLE	HOUSE AVG.	CHANGED VOTE
Democrat	54.1%	55.9%
Years in office	10.8	8.7
Contribution from PACs representing "Financial Services" and individuals giving >\$200	\$170,801	\$139,529
Foreclosure rate in home district	0.487%	0.588%
"Closeness" of 2008 election race on Oct. 25 (before 1 st vote)	0.392	0.390
"Closeness" of 2008 election race on Nov. 2 (before 2 nd vote)	0.403	0.407
Percent of votes with party	93.8%	94.1%
Percent living in urban areas	78.9%	86.2%
Median household income	\$43,463	\$43,185
Percent below poverty line	12.4%	13.1%
Percent with a high school diploma	80.2%	79.7%

TABLE 4
BENEFICIARIES OF TAX EXTENDERS AND PROVISIONS IN ENERGY IMPROVEMENT AND
EXTENSION ACT OF 2008 AND TAX EXTENDERS AND ALTERNATIVE MINIMUM TAX RELIEF
ACT OF 2008.

Wind and solar power producers
Disaster victims
College students
Teachers
NASCAR track owners
Film producers
Bicycle riders
Makers of specialized wooden arrows
Puerto Rican rum manufacturers
U.S. Virgin Islands rum manufacturers
Electric car owners
Investors in American Samoa
Mine rescuers
Worsted wool fabric products
Alaska fisherman

As a methodological note, the data for closeness of the 2008 House of Representatives election race by congressional district has been quantified so as to allow for averaging and comparison. The six Cook Political Report categorizations of races as

“Likely Democratic/Republican,” “Democratic/ Republican toss-up,” and “Leans Democratic/Republican” were assigned values of 1, 2, or 3 respectively to indicate numerically the closeness of an individual race; if a seat did not appear in the Cook Political Report list of contested races because it was considered safe, it was assigned a “closeness” value of 0.

Cursory examination of the summary statistics in Tables 2.1 and 2.2 reveals several interesting differences in the regressor means for “yea” and “nay” voters on both votes individually, as well as interesting differences from one vote to the other. Beside the difference in financial sector contributions, one such difference is the disparity between years in office for supporters and detractors of the EESA. Both times, the “yea” voters had been members of the House of Representatives for more years on average than the “nay” voters, and this difference was larger for the second vote than for the first. This seems to corroborate the notion that the veterans and leadership, or the political elite of both major parties, constituted the fundamental base of support for the Emergency Economic Stabilization Act of 2008. While an idealist might perceive this difference as veteran Congressmen’s greater willingness to undertake politically painful action to resolve Wall Street’s woes and deeper understanding of the connection between the financial sector and the greater economy, a cynic might construe this difference as time spent on Capitol Hill sweetening Congressmen’s relations with powerful interest groups and lobbies such as the financial sector.

Another interesting result is the difference in means of the constructed closeness of race variable. For the first vote, the mean closeness of electoral race is about 50% higher for “nay” voters compared to “yea” voters, and while this percentage does not

change much for the second vote, the mean closeness of race for both groups increases. What is driving this increase is not a global increase in the closeness of House races in the time period from September 26 to October 3, but a movement of some Representatives from the “nay” to the “yea” column over that period. The Congressmen who moved seem to be facing (on average) races that are not as close as those who resolutely stuck to “nay” on both votes, but closer than those who voted “yea” for both incarnations of the bill.

One final noteworthy observation deals with the demographic variables related to income, education, poverty, and urbanization. The means of these variables do not seem to differ noticeably between the first and second votes, between the “yea” and “nay” columns, and from the overall House average. This might suggest that the determinants of Congressional voting on the EESA are not rooted in the demographics of the districts that Congress represents, but in other considerations represented by the other regressors and/or the “sweeteners” found in the additions to the second bill.

V. Econometric Specification

In order to estimate the unconditioned determinants of Congressional voting on the first and second versions of the Emergency Economic Stabilization Act of 2008 (RC674 and RC681 respectively), two analogous Probit regressions are estimated. Each Probit regression models the probability of a “yea” vote on version i of the bill as a function of the independent variables discussed subsequently:

$$(1) \quad P(Yea_i = 1) = f(P, D, C, F, \varepsilon)$$

In equation (1), P is a bin of variables representing the personal characteristics of each representative. It also contains a variable representing ideology more specifically, the DW-NOMINATE score for each Representative. The DW-NOMINATE score is a measure of ideology based on the voting history of each member of Congress, constructed by Royce Carroll, Jeff Lewis, James Lo, Nolan McCarty, Keith Poole, and Howard Rosenthal (Carroll et. al. 2008). First-dimension DW-NOMINATE scores are negative for liberal Congressmen and positive for conservatives along the first dimension. Since Democrats were as a whole more supportive of the bill than Republicans, the coefficient on the first dimension of the DW-NOMINATE variable should be negative, as this variable is larger for senators who tend to disfavor government intervention in the economy. As for the second dimension, I expect it ought to be statistically insignificant, since it captures the North/South political divide (i.e. the divide that separated the Southern Democrats from the Northern Democrats in the mid-20th century) that was more salient in years past than it is now. Due to a multicollinearity issue, P does not contain a binary variable for pure party affiliation; DW-NOMINATE should be thought of as a more precise measure of the same political divide that party differences represent.

Also included in P is the number of years a particular representative has been in office. This is meant to capture any potential voting difference between newer and older members of the House. Since both the Bush Administration and the Democratic leadership in the House and Senate supported both versions of this Act, I would suspect that members of Congress with more experience might be more likely to favor the bill due to closer ties with these leadership figures or due to being leaders in their respective parties themselves.

Another binary variable accounts for membership on the House Financial Services Committee – it is equal to 1 if the representative is on the House Financial Services Committee and 0 if he/she is not. My inclusion of this variable is inspired by a quick regression that appears on an entry in the blog of Prof. Nolan McCarty, a professor of politics and public affairs at Princeton. As he argues:

“Because of the urgency with which the bailout plan was presented, its major provisions were negotiated by the administration and congressional leaders, circumventing the standard practice of committee hearings and markup. While Chairman Barney Frank was involved in the negotiations, most rank-and-file members of the Financial Services committee were cut out of the formulation of the most important piece of legislation to appear in its jurisdiction in many years” (McCarty 2008).

Because of this, McCarty goes on to argue, members of the Financial Services Committee might have felt slighted at being circumvented in such a way, and thus may have been more likely to vote against the bill. Indeed, McCarty finds that members of this committee were significantly more likely to oppose the bill, other things equal. For this reason, I include it in my analysis.

D is a bin of many variables representing the demographic characteristics of a Congressman’s home district (or state, in the case of Senators). These include: percent with a high school diploma, median household income, % urban, and the poverty rate by district. The coefficient on urban/rural may be positive, since rural voters may derive less utility from an act widely perceived as a bailout of Wall Street banks; their representatives would thus be more likely to vote accordingly. On the other hand, the coefficient on unemployment will likely be positive, since districts/states with higher unemployment rates are those who are the most affected by the economic downturn, and

their Congressmen will hence perceive a greater sense of urgency in doing something to combat the downturn in the eyes of their constituents. Ultimately, however, the direction of effect on many of these variables is uncertain, *a priori*.

Also included in D is the foreclosure rate in a Representative's home district. One major criticism of the EESA was that it served only to bail out reckless Wall Street investment banks, and did nothing to help average citizens who were struggling to pay mortgages they may not have been able to afford, and avoid foreclosure on houses whose value was declining in any case. If this criticism of the bill dominated the thinking of members of Congress whose districts were especially hard-hit by the subprime mortgage crisis as measured by higher foreclosures, then these Congressmen would be expected to vote against the bill and the sign on the coefficient of this variable should be negative. On the other hand, Congressmen whose districts were more affected than average by the housing crisis may have been averse to not voting for the Emergency Economic Stabilization Act, because it would give off the impression of not acting quickly and decisively to do something about the problems facing the economy. If this effect is stronger, then the sign on this variable should instead be positive.

The variable C is a measure of how competitive a race each Congressman faced in the 2008 election cycle. The data were drawn from the Cook Political Report, which characterized close races into three levels of competitiveness at about a weekly frequency in the months leading up to the election, and then quantified to make numerical comparison possible. In an article in the New York Times, Rep. Deborah Price (R-OH) commented on the effect of this variable: "People's re-elections played into this to a much greater degree than I would have imagined." A lot of political analysis and

reporting in the popular press after the failure of the first version of the bailout bill suggested that it failed because representatives who were in very tight races were averse to voting to such an unpopular piece of legislation right before an election. For these reasons, I expect the sign on this variable's coefficient to be negative.

Finally, the variable F measures the contributions to the re-election campaigns of House members from the "Financial Services" sector. This sector consists of several sub-industries, which are outlined in Section IV. Many of the studies reviewed in Section II indicate that contributions from the interest groups who are most affected by a particular piece of legislation may have an important effect on the outcome of Congressional voting; while other studies do not necessarily reach this conclusion, I hypothesize that the relationship will be salient in the context of the Emergency Economic Stabilization Act of 2008. A quick glance at the summary statistics provided in Table 2.1 and Table 2.2 supports this hypothesis: Representatives who voted "yea" for the first rescue package had received an average of \$30,000 more in contributions from PACs and individuals in the Financial Services sector during the 2008 election cycle than average. On the other hand, House members voting "nay" received almost the same amount *less* than the House average in 2008. This difference narrowed somewhat for the "yea" voters on the second vote, suggesting the possibility that legislators with a more remote relationship to the Financial Services sector changed their vote for other political or macroeconomic reasons.

In addition, to more closely investigate the reasons for the EESA's passage the second time around, I estimate another similar regression using a Probit model, but this time the left-hand variable is a binary variable that is 1 if the representative switched his

vote, and 0 if the representative did not switch his vote. For this regression, the sample size is restricted to the 238 Representatives who voted “nay” on the first iteration of the bill; thus, it models the conditional probability that:

$$(2) \quad P(Yea_2 = 1 | Yea_1 = 0) = f(P, D, C, F, \varepsilon)$$

where the “bins” P, D, C, and F are as described above, and where ε is an error term.

VI. Results

Table 5.1 shows the results of the first regression, which estimates equation (1), the unconditioned probability of a “yea” vote on the first version of the EESA. Results of this regression were mostly in line with expectations. Namely, the most significant variables (all significant at the 1% level) were ideology, measured by the first DW-NOMINATE ideological dimension, number of years in office, campaign contributions from the financial services sector, and whether or not the Congressman was vacating his seat. Also statistically significant were the closeness of the 2008 election (10%), the propensity for with-party voting (10%), the percentage of constituents living in an urban area (10%), and median household income (5%). Other variables were not statistically significant: of most interest, neither the foreclosure rate nor membership on the House Financial Services committee seemed to reliably predict the probability of a “yea” vote.

TABLE 5.1
MARGINAL EFFECTS, PROBIT COEFFICIENTS, AND P-VALUES FOR UNCONDITIONED
PROBABILITY OF “YEA” ON THE FIRST EESA VOTE (RC674)

VARIABLE	DF/DX (AT MEAN)	PROBIT COEFF.	P> z
Non-interventionism	-0.29564	-0.74311	0.001***
North/South	-0.0485	-0.12191	0.625
Years in office	0.008189	0.020584	0.010***
Fin. Services \$	7.02E-07	1.76E-06	0.002***
Fin. Service Committee	-0.02291	-0.0577	0.772
Foreclosure rate	1.696748	4.264848	0.670
Closeness of race	-0.06182	-0.15538	0.091*
Empty seat	0.421363	1.228855	0.001***
Votes with party %	1.650403	4.14836	0.052*
District population	6.65E-07	1.67E-06	0.455
District % urban	-0.31841	-0.80033	0.093*
District median HH inc.	9.24E-06	32E-05	0.035**
District poverty %	1.655955	4.162314	0.135
District % HS grad	0.56056	1.408992	0.349
_cons		-7.61598	0.010***

obs. P: .4734411

pred. P: .4704148 (at x-bar)

(* = significant at the 10% level; ** = 5%, *** = 1%)

A joint significance test finds that the insignificant variables in the equation estimating RC674 are not jointly significant (Prob < Chi² = 0.73). Dropping them from the equation results in a new function whose coefficients and derivatives at the mean are shown in Table 5.2

TABLE 5.2
MARGINAL EFFECTS, PROBIT COEFFICIENTS, AND P-VALUES FOR UNCONDITIONED
PROBABILITY OF “YEA” ON THE FIRST EESA VOTE (RC681); INSIGNIFICANT RIGHT-HAND
VARIABLES DROPPED

VARIABLE	DF/DX (AT MEAN)	PROBIT COEFF.	P> z
Non-interventionism	-0.306959	-0.771419	0.000***
Years in office	0.009126	0.022936	0.003***
Fin. Services \$	6.74E-07	1.69E-06	0.001***
Closeness of race	-0.065270	-0.164029	0.070*
Empty seat	0.424447	1.243653	0.001***
Votes with party %	1.581792	3.975202	0.060**
District % urban	-0.161781	-0.406572	0.292
District median HH inc.	4.69E-06	0.000012	0.073*
_cons			0.026**

obs. P: .4734411
pred. P: .4713749 (at x-bar)
(* = significant at the 10% level; ** = 5%, *** = 1%)

The first column, df/dx, is the derivative of the estimated Probit function with respect to the given variable, calculated at the mean values for all variables in the function. Thus, it is to be interpreted as the effect of a unit increase in each independent variable, measured in percentage points, on the probability of a ‘yea’ vote from a completely average Representative on RC674. Because of the units in which each variable is measured (see Table 1), the meaning of this statistic can differ.

The two dimensions of ideology are measured on a scale from -1 to 1, -1 being the most “liberal” and 1 being the most “conservative” on the first dimension (the more salient one), and -1 being the most “northern”/1 the most “southern” on the second dimension. Thus, a “unit increase” would mean a movement from -1 to 0 or from 0 to 1. So the df/dx statistic here approximately represents the difference in probability of a ‘yea’ vote between a perfectly moderate Congressman, and a Congressman at the extreme right end of the ideological spectrum on the interventionist (first) dimension. More specifically, this statistic is about -0.3, which means that an extremely conservative

Congressman is interpreted to be roughly 30 percentage points less likely to vote affirmatively for the EESA than a perfectly moderate Congressman. The exact probabilities estimated by the model differ somewhat because of the nonlinear nature of the Probit model. Similarly, an extremely liberal Congressman is 30 percentage points more likely (i.e. -30 percentage points less likely) to vote affirmatively than a perfectly moderate Congressman, which means that all in all the difference in probability of a 'yea' vote between the extreme liberal and conservative ends of the ideological spectrum is about 60 percentage points. The North/South dimension is conceptually messier but mathematically the same: subtracting the df/dx statistic will yield a predicted value for the most "Northern" Congressman, and adding it will yield a predicted value for the most "Southern" Congressman. Table 5.3 shows more specifically the probabilities of a 'yea' vote predicted by the Probit equation (1).

TABLE 5.3
 PROBABILITY OF “YEA” ON THE FIRST EESA VOTE (RC681) AT DIFFERENT LEVELS OF
 IDEOLOGY; OTHER VARIABLES HELD TO SAMPLE MEANS.

NON-INTERVENTIONISM	P(YEA ₁)
-0.8	0.702
-0.7	0.676
-0.6	0.649
-0.5	0.620
-0.4	0.592
-0.3	0.563
-0.2	0.533
-0.1	0.504
0	0.474
0.1	0.445
0.2	0.416
0.3	0.387
0.4	0.359
0.5	0.331
0.6	0.305
0.7	0.279
0.8	0.255
0.9	0.232
1.0	0.210

The effects of other independent variables are similarly interpreted. As a technical note, for several independent variables, the marginal probability measured by df/dx is greater than 1 (i.e. greater than 100 percentage points). This is because in these cases the variables whose effects the df/dx statistic is predicting are percentages, whose possible values range from 0 to 1, and so the statistic shows the effect on the probability of an impossible 100 percentage point increase in the value of the independent variable in question relative to that variable’s mean. This concern applies to the foreclosure rate, votes with party, % urban, % poverty, and % HS grad variables. It is perhaps more useful to consider the df/dx statistics for these variables divided by 10 or 100, where they would represent the effects of 10 and 1 percentage point increases in the value of the dependent variable, respectively.

The interpretation of the closeness of race variable requires some explanation as well. As discussed above, this variable is a constructed variable based on the Cook Political Report's categorization of the competitiveness of 2008 House election races on October 2, 2008. The variable takes the value 3 if the race is a "toss-up", 2 if it "leans" Democratic or Republican, 1 if it is "likely" Democratic or Republican, and 0 if it does not even make the list of close races on this date. Thus, the df/dx of -0.06182 on RC674 means a roughly 6 percentage point decline in the probability of a 'yea' vote each time a Representative's race moves up one Cook Political Report category in competitiveness.

With few exceptions, the signs on the coefficients (as shown in Table 5.2) were also as expected. A veteran liberal Congressman in a lightly contested race was relatively quite likely to vote in favor of the first EESA, whereas a junior conservative Congressman whose seat was in danger would very probably vote against the bill – an interpretation that agrees with common perception and popular media reporting on voting tendencies on this bill.

In addition, the equation models Congressmen who receive more campaign money from financial services as much more likely to vote "yea" than those receiving little money. Specifically, a df/dx of 6.74E-07 means that \$100,000 of contributions will result in an estimated 6.74 percentage point increase in the probability of a "yea" vote. This relationship, however, ought to be interpreted cautiously: there is likely some endogeneity in the relationship between receipt of campaign contributions from individuals and PACs associated with the financial services industry, and the likelihood of a particular Representative to vote for legislation such as the EESA. However, as has been previously argued, in early 2008 the need for such legislation as the EESA could not

likely have been foreseen, and contributors to Congressional elections from the financial sector likely had a very different political agenda in mind that they would have liked for the beneficiaries of their contributions to support. This means that Congressmen were likely considering the thoughts of their contributors as they went to vote on the bill, rather than the other way around. But even notwithstanding this argument, since the reasoning for providing emergency credit to the financial sector was ostensibly to prevent a broader economic collapse and not to “rescue” any specific set of financial institutions, the positive relationship between contributions and voting is troubling.

Table 6.1 shows the results of the regression estimating the unconditioned probability of a “yea” vote on the second iteration of the EESA, which passed. The interpretation of the Probit model for this incarnation of the EESA is somewhat less clear-cut, though qualitatively similar to that of the first vote. Most notably, only one of the signs has changed (on Population; this effect is however statistically insignificant and miniscule). The direction of effect of every other independent variable is otherwise the same. However, in general, the statistical significance of most explanatory variables has declined. Experience (as measured by years in office) is no longer significant, along with closeness of race, %urban, and median household income. Other variables, such as financial services campaign dollars, the propensity to vote the party line, and whether not a seat had no incumbent remained significant but only less so.

TABLE 6.1
MARGINAL EFFECTS, PROBIT COEFFICIENTS, AND P-VALUES FOR UNCONDITIONED
PROBABILITY OF “YEA” ON THE SECOND EESA VOTE (RC681)

VARIABLE	DF/DX (AT MEAN)	PROBIT COEFF.	P> z
Non-interventionism	-0.2771	-0.73079	0.001***
North/South	-0.18892	-0.49823	0.045***
Years in office	0.00217	0.005723	0.493
Fin. Services \$	5.52E-07	1.46E-06	0.014**
Fin. Service Committee	-0.05944	-0.15447	0.454
Foreclosure rate	0.503611	1.328146	0.885
Closeness of race	-0.04168	-0.10992	0.21
Empty seat	0.284034	0.938361	0.011**
Votes with party %	1.407345	3.711515	0.058*
District population	-2.07E-08	-5.47E-08	0.98
District % urban	-0.02169	-0.0572	0.905
District median HH inc.	5.56E-06	1.47E-05	0.196
District poverty %	2.039349	5.378266	0.089*
District % HS grad	0.838359	2.21096	0.182
_cons		-6.46268	0.026**

obs. P: .6059908

pred. P: .6250375 (at x-bar)

(* = significant at the 10% level; ** = 5%, *** = 1%)

A similar joint significance test to that for RC674 finds that the insignificant variables in this equation are not jointly significant either (Prob < Chi² = 0.65). Dropping them from the equation results in a new function whose coefficients and derivatives at the mean are shown in Table 6.2

TABLE 6.2
MARGINAL EFFECTS, PROBIT COEFFICIENTS, AND P-VALUES FOR UNCONDITIONED
PROBABILITY OF “YEA” ON THE SECOND EESA VOTE (RC681); INSIGNIFICANT RIGHT-
HAND VARIABLES DROPPED

VARIABLE	DF/DX (AT MEAN)	PROBIT COEFF.	P> z
Non-interventionism	-0.291877	-0.768510	0.000***
North/South	-0.247933	-0.652806	0.002***
Fin. Services \$	4.86E-07	1.28E-06	0.007***
Empty seat	0.284399	0.935533	0.004***
Votes with party %	1.731633	4.559383	0.013**
District poverty %	0.322977	0.850398	0.550
_cons		-4.343698	0.012**

(* = significant at the 10% level; ** = 5%, *** = 1%)

The only significant variables turn out to be the two dimensions of ideology, campaign contributions associated with financial services, and the dummy for whether a seat was being vacated in November. Though previously significant at the 10% level, the district poverty rate variable passes into statistical insignificance ($P=0.55$) while also being of small magnitude (a 1% increase in the poverty rate at the mean would result in a 0.32% increase in the chance of a “yea” vote). These results differ significantly from those of the first vote: namely, experience as measured by years in office ceases to correlate, as does the closeness of the upcoming race as measured by the 0-3 scale constructed from the Cook Political Report.

There are several possible interpretations for this phenomenon. For one, the model could be incompletely specified, lacking some of the variables that account for Congressional voting behavior on this bill, such as closeness of the relationship between a representative and party leadership, or other ideological positions (C.g. an aversion to hasty action, or a propensity for responding quickly to perceived crises) that are not neatly measured on a numerical scale. Another possible explanation is that traditional voting determinants have truly become less significant; that is, the loss of significance is a result in itself. The failure of the first version of the EESA and the 700-point downturn in the DOW lead to a general mood of panic, urgency, and extreme uncertainty; furthermore, the extremely small time frame during which the EESA was conceived and voted on likely gave Congressmen and their staff little opportunity to read and understand the legislation, which further undermines a vote based on measurable inside and outside influences. It is very possible that the determinants of Congressional voting on the second iteration of the financial bailout package were less well defined, and that Congress’

behavior was truly more random than on the first vote. A third and final explanation may be a purely econometric one. By virtue of the second version of the EESA passing by a comfortable margin, there are many more “yea” votes on this version of the bill than “nay” votes, which may lead to an overall poorer regressional fit than that on the vote for the first version where the “yea” and “nay” vote totals were nearly equal. This would be especially so around the more conservative ends of the ideological spectrum, where Representatives are predicted to be very likely to vote “nay” (See Table 5.3).

Equation (2), specified earlier in this paper, attempts to discover the determinants of the *change* in Congressional voting from the first bill to the second, rather than the determinants of either single vote. The determinants of the change in voting between bills are modeled using a Probit specification similar to (1). However, to model the conditional probability as opposed to the unconditioned probability, in this instance the sample is restricted to those representatives who voted “nay” on RC674 (N=228).

Tables 7.1 and 7.2 show the results. Generally, one might say that the results of this final model comprise a more “extreme” version of the unconditioned regression for $P(Yea_2)$. Most of the determinants of Congressional voting have become insignificant. The explanations that apply to Table 6.1 may also apply here; however, it is likely that there are more political and economic factors at play that induced 58 Congressmen to change their votes and pass the bill. Among the most important of these are Division B (the “Energy Improvement and Extension Act of 2008”) and Division C (the “Tax Extenders and Alternative Minimum Tax Relief Act of 2008”), of the bill. These were the two previously-mentioned acts that rode the legislative coattails, so to speak, of the EESA, although their content was not at all related to providing emergency liquidity to

the financial sector. A grocery list of beneficiaries of these two acts is presented earlier in Table 4; however, this study does not attempt to quantitatively account for the effect that they had in accruing support for the bill as a whole package, since each individual item probably only affected a few Representatives, and even then via specific circumstances for which good variables cannot be measured for all of the House.

TABLE 7.1
MARGINAL EFFECTS, PROBIT COEFFICIENTS, AND P-VALUES FOR UNCONDITIONED
PROBABILITY OF “YEA” ON THE SECOND EESA VOTE (RC681), GIVEN “NAY” ON THE
FIRST EESA VOTE (RC674)

VARIABLE	DF/DX (AT MEAN)	PROBIT COEFF.	P> Z
Non-interventionism	-0.08753	-0.29865	0.251
North/South	-0.26657	-0.90957	0.022**
Years in office	-0.00779	-0.02657	0.063*
Fin. Services \$	1.31E-07	4.48E-07	0.537
Fin. Service Committee	-0.05491	-0.19831	0.519
Foreclosure rate	-4.00222	-13.6562	0.412
Closeness of race	-0.01338	-0.04567	0.654
Empty seat	-0.12908	-0.55969	0.405
Votes with party %	0.722555	2.465475	0.343
District population	-1.09E-06	-3.72E-06	0.24
District % urban	0.504318	1.720815	0.029**
District median HH inc.	-1.83E-06	-6.26E-06	0.759
District poverty %	1.427244	4.869991	0.284
District % HS grad	0.844705	2.882271	0.152
_cons		-4.24455	0.251

obs. P: .2543860

pred. P: .2161163 (at x-bar)

(* = significant at the 10% level; ** = 5%, *** = 1%)

TABLE 7.2
MARGINAL EFFECTS, PROBIT COEFFICIENTS, AND P-VALUES FOR UNCONDITIONED
PROBABILITY OF “YEA” ON THE SECOND EESA VOTE (RC681), GIVEN “NAY” ON THE
FIRST EESA VOTE (RC674) ; INSIGNIFICANT RIGHT-HAND VARIABLES DROPPED

VARIABLE	DF/DX (AT MEAN)	PROBIT COEFF.	P> z
Non-interventionism	-0.16732	-0.55762	0.007***
North/South	-0.23031	-0.76757	0.035**
Years in office	-0.00803	-0.02674	0.045**
District % urban	0.41099	1.3697	0.035**
_cons		-1.4679	0.006***

obs. P: .2543860
pred. P: .2161163 (at x-bar)
(* = significant at the 10% level; ** = 5%, *** = 1%)

Once again, ideology is statistically and numerically significant. However, the magnitude of the df/dx coefficient on ideology is smaller than in the previous two regressions: Table 7.2 reports a marginal -0.16 percentage point change in probability of a “yea” vote at the median ideology for non-interventionism. This is compared to -0.30 for the first vote (Table 5.2) and -0.29 for the second vote (Table 6.2). Nevertheless, this is almost a moot point because the interpretation of the coefficient on non-interventionist/“conservative” economic ideology is different for the regression reported in Table 7.2. Specifically, the negative sign indicates that the more conservative a Representative who initially voted no, the less likely he was to *switch* his vote. To restate, conservative economic ideology predicted both a lower unconditioned probability of voting against the EESA on both incarnations of the bill, and predicted a lower probability of switching to “yea” given an initial “nay”. The stylized interpretation of this dual role for conservative economic ideology is that it was the less conservative/more liberal wing of the conservative half of the House who switched their votes in general, and provided the support necessary for the bill to pass.

The “North/South” ideology measure is also statistically significant; this finding is somewhat anomalous since the EESA was generally not a civil rights or states’ rights issue and thus this measure of ideology should not be expected to matter. The simple explanation is that instead of expecting the coefficient on this variable to be 0, I ought to have expected it to be the same as that for the “Non-interventionism” ideology measure. This is because the House at the time of these votes was polarized into broad “conservative” and “liberal” camps that respectively represent the positive and negative ends of both ideological spectra, simultaneously. There were, in other words, very few Representatives with an extremely high (positive) score on one ideology measure but an extremely low (negative) score on the other. Though overall the covariance between the two ideology measures seems to have been low enough so as to preclude multicollinearity problems, a more succinct analysis might have included only one.

Finally, there are the coefficients on years in office and % urban. The coefficient on years in office, while statistically significant at the 5% level, is of debatable numerical significance: the interpretation of the cited df/dx statistic is that from the mean representative, adding an additional year in office lowers the probability of a “yea” vote by about 0.8 percentage points. The small but statistically significant effect of this variable, however, may be entirely expected. One might reasonably think that more experienced representatives would be more likely to “have their minds made up” and be less prone to switching their votes, even in response to enticements such as those found in the bill’s other two divisions; one might also reasonably think that this effect would not be extraordinarily large. The significance of the positive coefficient on % urban is less straightforward to rationalize. It could be that Representatives from more urban areas felt

more concern for the employment prospects of their constituents, because the recession threatened by the unprecedented stock market decline following the first bill's failure might more adversely affect the urban-based manufacturing and service sectors.

VII. Conclusion

This paper draws several significant conclusions, one being the importance of ideology as the only voting determinant that was consistently significant in the equations estimating Congressional behavior on both bills individually, as well as the equation estimating vote switching between bills. Though the debate may have taken place along party lines that were considerably more blurred than they usually are for most other bills, the ideological divide in Congress could reasonably be called the most significant determinant of the vote on the EESA.

The other main conclusion of this paper is that the traditionally significant determinants of Congressional voting – ideology, campaign contributions, experience, short-term political risk, and demographics – were much better predictors of Congressional voting behavior on the first version of the bill than on the second version. Two principal explanations are posited for this difference: a general sentiment of panic and urgency in response to the signal sent by the massive stock market decline that followed the first version's failure, and the content of the two extra acts that tagged along with the second incarnation of the bill.

Ultimately, however, the factors that influenced voting on both iterations of the Emergency Economic Stabilization Act of 2008 are diverse and complex. Coupled with the large intrinsic unpredictable contingent of politics in general, and the especially

panicked and chaotic circumstances surrounding this act's history, it is generally not possible to create a mathematical or economic model that precisely predicts the outcome of such a process as the one by which this bill was passed into law.

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