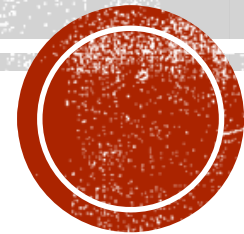


# DEBT IN POLITICAL CAMPAIGNS

Alexei V. Ovtchinnikov and Philip Valta



# MOTIVATION

- CA Representative Grace Napolitano's 1998 campaign
  - financed partly with personal loan of \$220,000
  - loan remained outstanding until July 2010
  - Grace Napolitano collected over \$200,000 in interest on loan
- From the LA Times:

“Napolitano held at least one fundraiser each in 2007 and 2008 to collect money for the loan, according to campaign records. Both were hosted by 21<sup>st</sup> Century Group Inc., a Capitol Hill lobbying firm whose clients include several transportation interests. Napolitano is a member of the House Transportation and Infrastructure Committee and is chairwoman of the Water and Power Subcommittee of the Natural Resources Committee...”

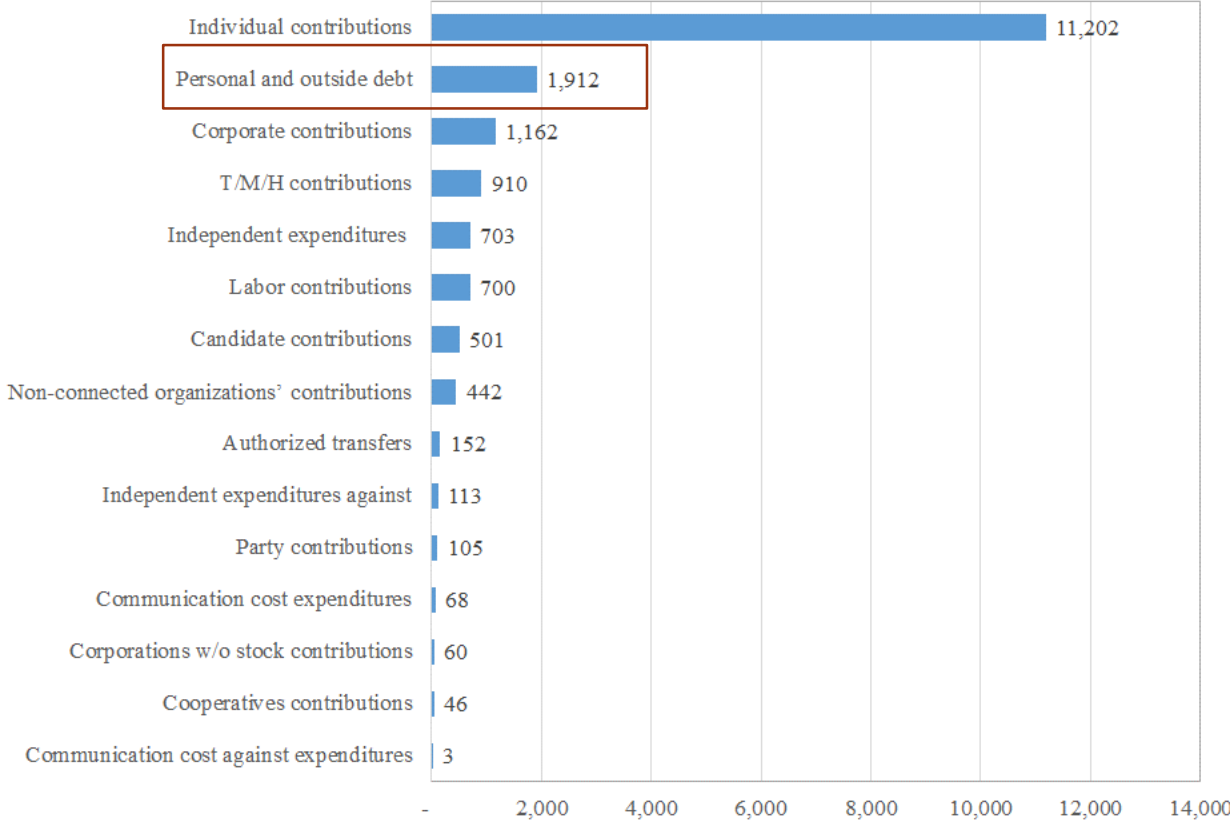


# THIS PAPER

- Two research questions:
  - how prevalent is debt as a source of funding of US political campaigns?
  - what impact, if any, does campaign debt have on subsequent legislative behavior?



# HOW PREVALENT IS CAMPAIGN DEBT?



note: the figures are in millions of 2014 dollars



# HOW PREVALENT IS CAMPAIGN DEBT?

| Variable   | Candidate party |        |        |     | Candidate chamber |         |     | Candidate status |             |     |           |     |
|--|-----------------|--------|--------|-----|-------------------|---------|-----|------------------|-------------|-----|-----------|-----|
|  | All             | Rep    | Dem    |     | House             | Senate  |     | Incumbents       | Challengers |     | Open race |     |
| Total debt (\$ billions)                           | 1.912           | 1.128  | 0.785  |     | 1.056             | 0.856   |     | 0.118            | 0.897       |     | 0.897     |     |
| Average debt per candidate/cycle (\$)              | 87,137          | 98,617 | 74,655 | **  | 53,889            | 365,573 | *** | 17,615           | 86,812      | *** | 182,335   | *** |
| Candidates w/ debt issues (%)                      | 46.75           | 48.19  | 44.97  |     | 46.30             | 49.97   |     | 12.52            | 60.84       | *** | 64.92     | *** |
| Candidates w/ personal debt issues (%)             | 43.99           | 45.93  | 41.72  | **  | 43.55             | 47.27   | *   | 9.31             | 58.23       | *** | 62.69     | *** |
| Candidates w/ outside debt issues (%)              | 8.24            | 6.97   | 9.46   |     | 8.27              | 7.36    |     | 4.70             | 9.76        | *** | 9.95      | **  |
| Candidates w/ debt outstanding at campaign end (%) | 40.72           | 41.90  | 38.94  |     | 40.34             | 43.44   |     | 6.78             | 53.35       | *** | 56.22     | *** |
| <b>Conditional on debt &gt; 0</b>                  |                 |        |        |     |                   |         |     |                  |             |     |           |     |
| Candidates w/ end debt > 0 (%)                     | 75.73           | 75.77  | 75.65  |     | 75.65             | 76.28   |     | 74.03            | 76.94       |     | 74.50     |     |
| Candidates w/ end cash > debt owed (%)             | 18.29           | 16.08  | 20.74  | *** | 18.87             | 14.00   | *** | 57.78            | 8.58        | *** | 7.85      | *** |
| Maturity - all debt (years)                        | 2.72            | 2.78   | 2.65   |     | 2.77              | 2.33    | *** | 6.36             | 2.42        | *** | 2.36      | *** |
| Maturity - personal debt (years)                   | 2.64            | 2.72   | 2.56   |     | 2.70              | 2.25    | *** | 6.22             | 2.37        | *** | 2.32      | *** |
| Maturity - other debt (years)                      | 2.56            | 2.55   | 2.61   |     | 2.61              | 2.17    | **  | 4.03             | 2.29        | *** | 2.52      | *** |
| Debt / total receipts (%)                          | 31.79           | 34.39  | 29.01  | *** | 31.16             | 36.89   | *** | 7.67             | 34.36       | *** | 33.49     | *** |
| Candidate debt / total receipts (%)                | 32.02           | 34.51  | 29.28  | *** | 31.42             | 37.32   | *** | 7.87             | 34.12       | *** | 33.17     | *** |
| Outside debt / total receipts (%)                  | 10.57           | 12.32  | 9.80   |     | 10.28             | 12.81   |     | 4.37             | 12.02       | *** | 11.65     | *** |
| N  | 21,946          | 11,431 | 10,515 |     | 19,605            | 2,341   |     | 6,689            | 10,335      |     | 4,922     |     |



# IMPACT OF CAMPAIGN DEBT ON LEGISLATIVE BEHAVIOR

- Vote pledging
  - indebted campaigns' demand for future funds is higher
  - as a result, indebted politicians are more willing to engage in quid pro quo relations with special interests
- Alignment
  - campaign debt reduces amount of future funds for reelection
  - it disciplines politicians into pursuing interests of local constituents



# EVIDENCE

| Variable  | (1)                 | (2)                | (3)                | (4)                | (5)                | (6)                 | (7)                 |
|---|---------------------|--------------------|--------------------|--------------------|--------------------|---------------------|---------------------|
| $C_{jt-1}^{Labor}$                              | 0.0381<br>(0.0174)  | 0.0381<br>(0.0181) | 0.0381<br>(0.0198) | 0.0582<br>(0.0218) | 0.0721<br>(0.0246) | 0.0684<br>(0.0258)  | 0.0535<br>(0.0277)  |
| $D_{jt-1}^{Proportion}$                         | -0.0003<br>(0.0055) | 0.0009<br>(0.0055) | 0.0010<br>(0.0056) | 0.0090<br>(0.0068) | 0.0070<br>(0.0064) |                     |                     |
| $C_{jt-1}^{Labor} \times D_{jt-1}^{Proportion}$ | 0.4367<br>(0.1293)  | 0.4424<br>(0.1310) | 0.4415<br>(0.1311) | 0.4154<br>(0.1339) | 0.4331<br>(0.1589) |                     |                     |
| $D_{jt-1}^{Indicator}$                          |                     |                    |                    |                    |                    | -0.0118<br>(0.0068) |                     |
| $C_{jt-1}^{Labor} \times D_{jt-1}^{Indicator}$  |                     |                    |                    |                    |                    | 0.0689<br>(0.0489)  |                     |
| $D_{jt-1}^{Amount}$                             |                     |                    |                    |                    |                    |                     | -0.0006<br>(0.0005) |
| $C_{jt-1}^{Labor} \times D_{jt-1}^{Amount}$     |                     |                    |                    |                    |                    |                     | 0.0068<br>(0.0035)  |
| Other controls                                  | Yes                 | Yes                | Yes                | Yes                | Yes                | Yes                 | Yes                 |
| Committee controls                              | No                  | No                 | No                 | No                 | Yes                | Yes                 | Yes                 |
| Politician FE                                   | Yes                 | Yes                | Yes                | Yes                | Yes                | Yes                 | Yes                 |
| Year FE   | Yes                 | Yes                | Yes                | No                 | No                 | No                  | No                  |
| State $\times$ Year FE                          | No                  | No                 | No                 | Yes                | Yes                | Yes                 | Yes                 |
| Adj. R <sup>2</sup>                             | 0.960               | 0.961              | 0.961              | 0.964              | 0.964              | 0.964               | 0.964               |
| N   | 6,276               | 6,194              | 6,194              | 6,163              | 6,163              | 6,163               | 6,163               |



# SUBSAMPLE ANALYSIS

|    |             | Parameter estimates |  |                         |  |   |                     |       |
|----|-------------|---------------------|--|-------------------------|--|---|---------------------|-------|
|    | Subsample   | $C_{jt-1}^{Labor}$  |  | $D_{jt-1}^{Proportion}$ |  | $C_{jt-1}^{Labor} \times D_{jt-1}^{Prop}$ | Adj. R <sup>2</sup> | N     |
| 1) | Democrats   | 0.0240<br>(0.0234)  |  | 0.0023<br>(0.0511)      |  | 0.2704<br>(0.1916)                        | 0.624               | 2,930 |
| 2) | Republicans | 0.0002<br>(0.0603)  |  | -0.0036<br>(0.0068)     |  | 0.9081<br>(0.3952) **                     | 0.683               | 2,970 |





# SUBSAMPLE ANALYSIS

|    |                                   | Parameter estimates |   |                         |    |   |     |                     |       |
|----|-----------------------------------|---------------------|---|-------------------------|----|---|-----|---------------------|-------|
|    | Subsample                         | $C_{jt-1}^{Labor}$  |   | $D_{jt-1}^{Proportion}$ |    | $C_{jt-1}^{Labor} \times D_{jt-1}^{Prop}$ |     | Adj. R <sup>2</sup> | N     |
| 1) | Indebted politicians only         | 0.0344<br>(0.0380)  |   | -0.0145<br>(0.0097)     |    | 0.5644<br>(0.2354)                        | *** | 0.968               | 2,006 |
| 2) | Politicians with significant debt | -0.0572<br>(0.0825) |   | -0.0219<br>(0.0144)     |    | 0.9432<br>(0.2555)                        | *** | 0.989               | 866   |
| 3) | Politicians with little debt      | 0.1154<br>(0.0615)  | * | 1.7949<br>(1.1355)      |    | -1.6246<br>(5.0899)                       |     | 0.986               | 868   |
| 4) | Secure election                   | 0.0180<br>(0.0291)  |   | 0.0208<br>(0.0101)      | ** | 0.2616<br>(0.2047)                        |     | 0.973               | 2,142 |
| 5) | Close election                    | 0.0317<br>(0.0442)  |   | 0.0046<br>(0.0478)      |    | 0.7604<br>(0.4301)                        | *   | 0.953               | 2,177 |



# SUBSAMPLE ANALYSIS

|    |  | Parameter estimates |    |                         |    |   |    |                     |       |
|----|--|---------------------|----|-------------------------|----|---|----|---------------------|-------|
|    | Subsample  | $C_{jt-1}^{Labor}$  |    | $D_{jt-1}^{Proportion}$ |    | $C_{jt-1}^{Labor} \times D_{jt-1}^{Prop}$ |    | Adj. R <sup>2</sup> | N     |
| 1) | Incumbents only  | 0.0779<br>(0.0307)  | ** | -0.0003<br>(0.0071)     |    | 0.4042<br>(0.1745)                        | ** | 0.975               | 5,083 |
| 2) | Politicians with debt increases                                | -0.1274<br>(0.1654) |    | -0.1084<br>(0.1374)     |    | 1.6047<br>(0.6872)                        | ** | 0.966               | 177   |
| 3) | Politicians with debt decreases                                | 0.0188<br>(0.0314)  |    | 0.0147<br>(0.0163)      |    | 0.6795<br>(0.4025)                        | *  | 0.968               | 1,312 |
| 4) | Politicians with no initial debt who then issue and repay debt | 0.2113<br>(0.1191)  | *  | -0.3169<br>(0.2426)     |    | 1.7150<br>(0.9866)                        | *  | 0.968               | 201   |
| 5) | Senior politicians   | 0.0373<br>(0.0299)  |    | -0.0448<br>(0.0801)     |    | 0.3256<br>(0.4441)                        |    | 0.964               | 3,000 |
| 6) | Junior politicians   | 0.0665<br>(0.0473)  |    | 0.0351<br>(0.0144)      | ** | 0.5338<br>(0.2411)                        | ** | 0.968               | 2,886 |



# SUBSAMPLE ANALYSIS

|    |  | Parameter estimates |     |                         |   |   |   |                     |       |
|----|--|---------------------|-----|-------------------------|---|---|---|---------------------|-------|
|    | Subsample                                | $C_{jt-1}^{Labor}$  |     | $D_{jt-1}^{Proportion}$ |   | $C_{jt-1}^{Labor} \times D_{jt-1}^{Prop}$ |   | Adj. R <sup>2</sup> | N     |
| 1) | Politicians from low unionization CDs    | 0.2081<br>(0.1156)  | *   | 0.0151<br>(0.1072)      |   | 1.9171<br>(1.0600)                        | * | 0.957               | 1,290 |
| 2) | Politicians from middle unionization CDs | 0.1392<br>(0.0324)  | *** | 0.1957<br>(0.1022)      | * | 0.9826<br>(1.0507)                        |   | 0.963               | 1,210 |
| 3) | Politicians from high unionization CDs   | 0.0032<br>(0.0265)  |     | -0.0752<br>(0.1080)     |   | 0.0711<br>(0.8868)                        |   | 0.965               | 1,055 |



# IV ESTIMATION (FIRST STAGE)

|                                     | $D^{Proportion}$    |     | $C^{Labor} \times D^{Proportion}$ |   | $D^{Proportion}$    |     | $C^{Labor} \times D^{Proportion}$ |     |
|-------------------------------------|---------------------|-----|-----------------------------------|---|---------------------|-----|-----------------------------------|-----|
| Variable                            | (1)                 |     | (2)                               |   | (3)                 |     | (4)                               |     |
| Opponents                           | 0.0705<br>(0.0253)  | *** | -0.0017<br>(0.0035)               |   |                     |     |                                   |     |
| $C_{jt-1}^{Labor} \times Opponents$ | 0.0889<br>(0.0804)  |     | 0.1019<br>(0.0526)                | * |                     |     |                                   |     |
| Status                              |                     |     |                                   |   | -0.0250<br>(0.0058) | *** | 0.0014<br>(0.0007)                | *   |
| $C_{jt-1}^{Labor} \times Status$    |                     |     |                                   |   | -0.0433<br>(0.0388) |     | -0.0548<br>(0.0138)               | *** |
| $C_{jt-1}^{Labor}$                  | -0.0394<br>(0.0201) | **  | 0.0063<br>(0.0059)                |   | 0.0070<br>(0.0384)  |     | 0.0655<br>(0.0143)                | *** |
| Other controls                      | Yes                 |     | Yes                               |   | Yes                 |     | Yes                               |     |
| Committee controls                  | Yes                 |     | Yes                               |   | Yes                 |     | Yes                               |     |
| Politician FE                       | Yes                 |     | Yes                               |   | Yes                 |     | Yes                               |     |
| Year FE                             | Yes                 |     | Yes                               |   | Yes                 |     | Yes                               |     |
| N                                   | 6,194               |     | 6,194                             |   | 6,194               |     | 6,194                             |     |
| Cragg-Donald F-stat                 | 67.398              |     |                                   |   | 64.426              |     |                                   |     |



# IV ESTIMATION (SECOND STAGE)

| Variable  | Instrument = Opponents |                       |                      |                       |                       |                       | Instrument = Status |       |       |       |       |       |
|---|------------------------|-----------------------|----------------------|-----------------------|-----------------------|-----------------------|---------------------|-------|-------|-------|-------|-------|
|   | (1)                    | (2)                   | (3)                  | (4)                   | (5)                   | (6)                   | (1)                 | (2)   | (3)   | (4)   | (5)   | (6)   |
| $C_{jt-1}^{Labor}$                              | 0.0234<br>(0.0289)     | 0.0414 **<br>(0.0191) | 0.0107<br>(0.0384)   | 0.0165<br>(0.0290)    | 0.0364<br>(0.0228)    | -0.0005<br>(0.0382)   |                     |       |       |       |       |       |
| $D_{jt-1}^{Proportion}$                         | 0.2392<br>(0.3078)     |                       |                      | -0.4463 *<br>(0.2623) |                       |                       |                     |       |       |       |       |       |
| $C_{jt-1}^{Labor} \times D_{jt-1}^{Proportion}$ | 2.4959 **<br>(0.9788)  |                       |                      | 1.6273 **<br>(0.8197) |                       |                       |                     |       |       |       |       |       |
| $D_{jt-1}^{Indicator}$                          |                        | 0.0202<br>(0.0238)    |                      |                       | -0.0430 *<br>(0.0231) |                       |                     |       |       |       |       |       |
| $C_{jt-1}^{Labor} \times D_{jt-1}^{Indicator}$  |                        | 0.1392 *<br>(0.0761)  |                      |                       | 0.1437 *<br>(0.0741)  |                       |                     |       |       |       |       |       |
| $D_{jt-1}^{Amount}$                             |                        |                       | 0.0034<br>(0.0029)   |                       |                       | -0.0037 *<br>(0.0022) |                     |       |       |       |       |       |
| $C_{jt-1}^{Labor} \times D_{jt-1}^{Amount}$     |                        |                       | 0.0137 *<br>(0.0080) |                       |                       | 0.0139 *<br>(0.0073)  |                     |       |       |       |       |       |
| Other controls                                  | Yes                    | Yes                   | Yes                  | Yes                   | Yes                   | Yes                   | Yes                 | Yes   | Yes   | Yes   | Yes   | Yes   |
| Committee controls                              | Yes                    | Yes                   | Yes                  | Yes                   | Yes                   | Yes                   | Yes                 | Yes   | Yes   | Yes   | Yes   | Yes   |
| Politician FE                                   | Yes                    | Yes                   | Yes                  | Yes                   | Yes                   | Yes                   | Yes                 | Yes   | Yes   | Yes   | Yes   | Yes   |
| Year FE   | Yes                    | Yes                   | Yes                  | Yes                   | Yes                   | Yes                   | Yes                 | Yes   | Yes   | Yes   | Yes   | Yes   |
| N   | 6,194                  | 6,194                 | 6,194                | 6,194                 | 6,194                 | 6,194                 | 6,194               | 6,194 | 6,194 | 6,194 | 6,194 | 6,194 |



# BCRA, 2002

| Variable   | Labor contributions measured contemporaneously with votes |                        |                     |                        | Labor contributions measured during the previous election cycle |     |     |     |
|--|---|------------------------|---------------------|------------------------|---|-----|-----|-----|
|  | (1)   | (2)                    | (3)                 | (4)                    | (5)   | (6) | (7) | (8) |
| $C_{jt-\tau}^{Labor}$  | 0.0284<br>(0.0328)  | 0.0101<br>(0.0355)     | -0.0137<br>(0.0184) | -0.0281<br>(0.0207)    |   |     |     |     |
| $D_{jt-1}^{Proportion}$  | 0.0043<br>(0.0065)  |                        | 0.0103*<br>(0.0061) |                        |   |     |     |     |
| $C_{jt-\tau}^{Labor} \times D_{jt-1}^{Proportion}$                     | 0.3943**<br>(0.1650)                                      |                        | 0.1075<br>(0.0742)  |                        |   |     |     |     |
| $PBCRALD_{jt}$   | 0.0207<br>(0.0272)  | 0.1951<br>(0.1504)     | 0.0296<br>(0.0299)  | 0.3405*<br>(0.1835)    |   |     |     |     |
| $C_{jt-\tau}^{Labor} \times PBCRALD_{jt}$                              | 0.0967<br>(0.0810)  | 2.1351***<br>(0.5949)  | -0.1290<br>(0.1251) | -1.4188***<br>(0.3760) |   |     |     |     |
| $D_{jt-1}^{Proportion} \times PBCRALD_{jt}$                            | 0.0569<br>(0.0645)  |                        | -0.0102<br>(0.0727) |                        |   |     |     |     |
| $C_{jt-\tau}^{Labor} \times D_{jt-1}^{Proportion} \times PBCRALD_{jt}$ | -5.7316**<br>(2.4802)                                     |                        | 0.1914<br>(0.3720)  |                        |   |     |     |     |
| $D_{jt-1}^{Amount}$  |   | -0.0007<br>(0.0006)    |                     | -0.0009<br>(0.0006)    |   |     |     |     |
| $C_{jt-\tau}^{Labor} \times D_{jt-1}^{Amount}$                         |   | 0.0088*<br>(0.0052)    |                     | 0.0036**<br>(0.0017)   |   |     |     |     |
| $D_{jt-1}^{Amount} \times PBCRALD_{jt}$                                |   | -0.0119<br>(0.0112)    |                     | -0.0230*<br>(0.0135)   |   |     |     |     |
| $C_{jt-\tau}^{Labor} \times D_{jt-1}^{Amount} \times PBCRALD_{jt}$     |   | -0.2536***<br>(0.0709) |                     | 0.0946***<br>(0.0266)  |   |     |     |     |
| Other controls   | Yes   | Yes                    | Yes                 | Yes                    |   |     |     |     |
| Committee controls   | Yes   | Yes                    | Yes                 | Yes                    |   |     |     |     |
| Politician FE  | Yes   | Yes                    | Yes                 | Yes                    |   |     |     |     |
| State $\times$ Year FE   | Yes   | Yes                    | Yes                 | Yes                    |   |     |     |     |
| Adj. R <sup>2</sup>  | 0.964   | 0.964                  | 0.964               | 0.964                  |   |     |     |     |
| N  | 6,163   | 6,163                  | 6,163               | 6,163                  |   |     |     |     |



# FINANCIAL SERVICES LEGISLATION VOTING, 1991, 1998

| Sources of contributions   | Baseline results    |         |                     |         |                    |         | Results with additional controls |     |                     |     |                    |     |
|--|---------------------|---------|---------------------|---------|--------------------|---------|----------------------------------|-----|---------------------|-----|--------------------|-----|
|  | (1)                 | (2)     | (3)                 | (4)     | (5)                | (6)     | (1)                              | (2) | (3)                 | (4) | (5)                | (6) |
| Insurance PACs   | 3.7060<br>(1.5638)  | **      |                     |         |                    |         | 3.9431<br>(1.6983)               | **  |                     |     |                    |     |
| Investment PACs  | 0.3403<br>(0.5642)  |         |                     |         |                    |         | 0.3387<br>(0.5700)               |     |                     |     |                    |     |
| Banking PACs   | -0.6231<br>(1.4905) |         | -1.9395<br>(1.5381) |         |                    |         | -0.6985<br>(1.5410)              |     | -1.9578<br>(1.5991) |     |                    |     |
| Insurance and investment PACs  |                     |         | 1.1412<br>(0.4749)  | **      |                    |         |                                  |     | 1.1642<br>(0.4829)  | **  |                    |     |
| Insurance and investment minus banking PACs                                      |                     |         |                     |         | 0.9751<br>(0.3439) | ***     |                                  |     |                     |     | 1.0076<br>(0.3303) | *** |
| Insurance PACs $\times D_{jt-1}^{\text{Indicator}}$                              | -5.9605<br>(8.5988) |         |                     |         |                    |         | -6.2923<br>(9.0378)              |     |                     |     |                    |     |
| Investment PACs $\times D_{jt-1}^{\text{Indicator}}$                             | 6.8270<br>(3.4108)  | **      |                     |         |                    |         | 7.2453<br>(3.2170)               | **  |                     |     |                    |     |
| Banking PACs $\times D_{jt-1}^{\text{Indicator}}$                                | -9.6024<br>(5.4644) | *       | -6.7968<br>(4.0603) | *       |                    |         | -10.0465<br>(4.9710)             | **  | -7.2421<br>(3.8596) | *   |                    |     |
| Insurance and investment PACs $\times D_{jt-1}^{\text{Indicator}}$               |                     |         | 4.1291<br>(2.2323)  | *       |                    |         |                                  |     | 4.3632<br>(2.1107)  | **  |                    |     |
| Insurance and investment minus banking PACs $\times D_{jt-1}^{\text{Indicator}}$ |                     |         |                     |         | 2.6180<br>(1.5881) | *       |                                  |     |                     |     | 2.7287<br>(1.6516) | *   |
| Other controls   | No                  | No      | No                  | No      | No                 | No      | Yes                              | Yes | Yes                 | Yes | Yes                | Yes |
| Log-likelihood   | -133.61             | -138.77 | -140.67             | -131.53 | -136.90            | -138.81 |                                  |     |                     |     |                    |     |
| N  | 226                 | 226     | 226                 | 226     | 226                | 226     | 226                              | 226 | 226                 | 226 | 226                | 226 |



# CONCLUSION

- Debt is a significant source of funding of US political campaigns
- Evidence is consistent with the view that debt creates legislative distortions
  - admittedly, this paper takes only the first step in this direction
  - more work is needed

