

# Appendix

## A.1 Proofs

*Proof of Proposition 2.* To grasp the details of the proof, it is useful to first understand the initial equilibrium in a standard common agency problem. We illustrate this with the help of Figure A.1, which is adapted from Figure 1 in Dixit *et al.* (1997). As proven in detail in Proposition 1 of Dixit *et al.* (1997), an agent  $j$  faced with an indifference curve of the government policymaker  $GG$  will choose a policy associated with zero contributions  $\mathbf{p}^{-i}$ , which coincides with the agent's reservation utility captured by the flat portion of the indifference curve  $W^jW^j$ , unless the agent's welfare is increasing in the chosen policy, in which case equilibrium contributions are nonzero at  $c^{j^\circ}$  with corresponding policy  $p_j^\circ$ . Policymakers can easily construct a payment schedule that induces the agent to choose the nonzero level of contributions. The problem is symmetric for all other organized agents  $j \in J$ , and an equilibrium exists where the policymaker effects policy in a manner that rewards all agents according to exactly the change in the policymaker's welfare, conditional on positive contributions (an equilibrium Bernheim & Whinston (1986) term *truthful*).

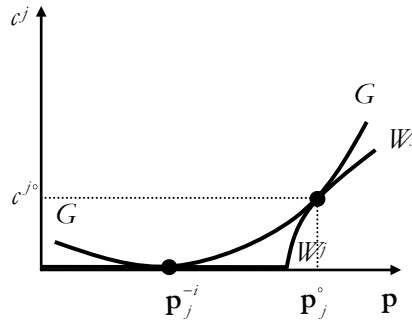


Figure A.1: Equilibrium contribution schedules.

Now consider the effect of the previous period's policy on the current configuration of transactions costs. Since transactions costs (by definition) affect the income of agent  $i$ , there are now agents for which the upper limit of feasible contributions originally dominated the welfare gain from being able to influence policy, but, as a result of the (assumed) reduction in transactions costs, will now participate in the political contribution game. The indifference curves that correspond to these are the dashed line  $W^{j'}W^{j'}$  and the solid  $W^{j''}W^{j''}$  (with the corresponding critical values of positive welfare-inducing policy being  $\mathbf{p}_j$  and  $\mathbf{p}'_j$ , respectively), illustrated in Figure A.2.<sup>17</sup> Therefore, as a result of transactions costs, groups that formerly did not participate in the lobbying process now have an incentive to do so. This implies that  $I \supseteq J' \supseteq J$ . As illustrated for one such

<sup>17</sup>Note that we have chosen to illustrate the function  $\bar{L}^i(\mathbf{g})$  as a curve, although this could well be linear.

group  $j$ , this leads to contributions that are equivalent to the equilibrium level  $c^{j\circ'}$ , thus yielding the equilibrium policy  $g_j^{\circ'}$ .

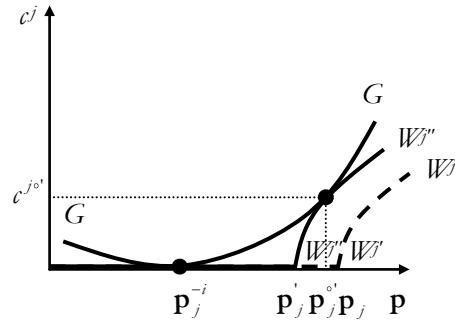


Figure A.2: Changes in compensating contribution schedules.

Note that, since the basic structure of the game remains unchanged (save for a different number of politically-organized groups), all the key findings that have been established for the original Bernheim & Whinston (1986) and Dixit *et al.* (1997) models continue to hold. In particular, the truthful political equilibria will continue to have both joint efficiency and coalition proofness properties. Finally, note that while the proof has relied on the case of how a reduction in transactions costs induces entry into the lobbying game (which is easier to grasp intuitively), the converse holds for increases in transactions costs (which is the empirically-relevant case for the developments in the U.S. financial sector). Either way, the central idea of changes to transactions costs affecting the structure of institutions continues to hold.  $\square$