Globalization and Democracy

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Abstract

We examine the effect of globalization on the range of policy choice available to governments in different countries and to parties representing different constituencies within particular countries. It is not easy to find reasons policies would differ across and within similar countries even if they were economically autarkic and politically sovereign. Economic openness may increase income inequality in at least some countries, leading to higher tax rates and larger partisan differences, but tax competition reduces inter- and intra-country differences, so that the net effect of openness is indeterminate. Emulation and conditionality may cause policy convergence even when national conditions remain different. In the end, there is probably little for globalization to narrow. The dissatisfaction with democracy in the globalized world may be due not to the narrowness of the space between the constraints but to the policies feasible under these constraints.

1 Introduction

We examine the claim that globalization narrows policy choices, thus depriving citizens of the ability to decide through the democratic process. By now a conventional story is that "globalization," whatever it is, sharply restricts the capacity of national governments to pursue policies preferred by citizens of their countries. Moreover, since the external constraints are overwhelming, parties representing different interests within each country are forced to propose the same policies or at least to pursue the same policies if elected. Hence, the democratic process is impotent. Here is how The Economist (27 September, 2001) sees the current public opinion: "The institutions that in most people’s eyes represent the global economy – the IMF, the World Bank and the World Trade Organization – are reviled far more widely than they are admired.... Governments, meanwhile, are accused of bowing down to business: globalization leaves them no choice. Private capital moves across the planet unchecked. Wherever it goes, it bleeds democracy of content and puts 'profits before people'."

Note that this claim is twofold. Globalization may push governments in different countries to follow similar policies. It may also compel parties representing different constituencies within particular countries to propose and implement similar policies. Another way to make this distinction is to think that globalization may reduce policy differences across economic conditions or may reduce partisan differences under the same conditions. These effects may operate in conjunction: if all governments have to pursue the same policy, then it makes no difference what parties propose in elections. But they need not to: national governments may have a choice but parties may still offer the same proposals. Moreover, the implications of these two effects for democracy are not the same.

To study the impact of globalization on the differences among politically sovereign countries, one can rely on the workhorse of political economy, the median voter model. Even if (two) parties within each country represent different interests, as long as they know the distribution of voter preferences, they converge to the ideal position of the voter with the median preference. With regard to policies that entail any kind of redistribution, this preference depends on income inequality and on the shadow cost of public funds. Hence, if each country autonomously chooses policies through the democratic process, the impact of globalization can be decomposed into its effect on income distribution and the effect on tax competition. This is, however, not the end of the story, since national policies can be coordinated voluntarily at the international scale or imposed from the outside independently of country-specific conditions. By forging a widespread opinion about best policies or by conditioning investment, loans, or aid on particular policies, foreign actors may either alter the preference of the decisive voter or insert a wedge between the preferences of less well informed electorate and better informed governments.

The impact of globalization on partisan differences within countries is much more difficult to determine. Clearly, if everyone knows that whichever party
is elected will be subject to overwhelming external constraints, either parties will propose the same policies or their electoral proposals will not be credible. Suppose, however, that national governments have some margin in choosing policies. Does purely economic interdependence reduce the difference between policies of parties representing different interests?

To answer this question, we need to understand why parties would not converge to the same policies in politically sovereign countries, which is not obvious. Even if parties represent different interests, policies are constrained by incentive considerations originating from private decisions to save and to work, and these constraints may be sufficiently tight that in the end, as Clark (forthcoming) puts it in the title of his book, it may be "Capitalism, not Globalism" that forces different parties to adopt similar policies. Electoral constraints also push parties to converge: after all, to pursue policies, parties must win elections, and to win them they must receive support from the same group of marginal voters. Moreover, to the extent to which money influences political outcomes, political parties are more likely to win and to retain office if they pursue policies that generate financial support (Miliband 1970, Grossman and Hellman 2001). Hence, there are good reasons to expect that, even in completely isolated countries, parties with different ideological orientations would propose and implement similar policies. Indeed, a cursory glance at the history of economic policies in Western Europe shows that most of the time they did (Przeworski 2001). Hence, it is not easy to find something for globalization to restrict.

The paper is organized as follows. First, we conjure a counterfactual of an autarkic, sovereign country and examine reasons parties would converge to the same policies even under such conditions. To establish a benchmark, we introduce a model in which parties do not converge. Then we lift the assumption of economic autarky, by allowing commodity and capital flows, and examine their impact on cross-country and intra-country policy differences. Subsequently, we relax the assumption of political sovereignty, allowing policies to be coercively transmitted between countries through various mechanisms. We end by claiming that no conclusions about the impact of globalization on policy choice can be drawn given the current state of knowledge and then speculate about the impact of globalization on democracy.

2 Benchmark

The first difficulty is raised by the question “compared to what”? If globalization restricts the range of choices, we need to know first what this unrestricted range is. Hence, we need a benchmark.

Consider a world composed of countries in which governments are not subject to any external constraints: autarky in the economic realm and sovereignty in the political realm. No goods are traded, neither capital nor labor moves across borders, there are no international credit markets, no international organizations or agreements, and no pressures by external actors to influence policies.
of national governments. Since such a world never existed, this is obviously a counterfactual benchmark. But the exercise is illuminating, since it permits us to ask how large would have been the realm of choice under such conditions.

2.1 Economic and Political Constraints Under Sovereign Autarky

To answer this question, we need to have some idea of how policies are chosen. One can give plausible rival answers to this question. Consider some candidates:

(1) Assume that all politicians are utilitarian maximizers: all they want to do is to promote the public interest. For example, all parties seek to maximize the utility of a representative household in a linear economy with a CES utility function: this assumption is convenient since maximizing utility is then equivalent to maximizing the rate of economic growth (Barro 1990). Politicians may have different prior beliefs about the effectiveness of alternative policies, say import substitution versus export promotion. But if they are rational, they learn from experience both of their own and of other countries, perhaps taking into account the similarity of conditions (see below and Meseguer Yebra 2001). Parties choose policies \( p \in P \), to maximize their objective. Letting \( \gamma \) stand for the rate of growth, their updated belief about the effectiveness of policy \( p \) will then be

\[
E_{t+1}(\gamma|p) = \rho E_t(\gamma|p) + (1 - \rho)\bar{x}_t|p
\]

where \( \rho \) stands for the precision of their beliefs (inverse of variance) and \( \bar{x} \) represents mean experience with policy \( p \) of countries facing similar conditions, including one’s own. At each time, all parties compare their expectations with regard to different policies and choose the one with the highest value.

Now, unless politicians have a precise prior and the experience is noisy – a possibility to which we return – beliefs converge quickly, and soon everyone agrees that some policy \( p^* \) is superior to all other policies. New ideas may spring up from time to time independently of experience but most of the time there will be no difference between political parties within each country and among governments across countries, at least countries facing similar conditions. Hence, there will be nothing for globalization to constrain.

(2) Suppose that individuals are ordered by their incomes or by the shares of incomes they derive from return to capital, so that they have different preferences about growth versus redistribution. Say governments represent different interests, so that they are \( L \) and \( R \). How much will they differ?

To answer this question, we need to tell a fuller story. One class of such stories – including Przeworski and Wallerstein (1988) and Bertola (1993) – is that governments maximize the present value of utility flows of either labor or capital (alternatively poor and rich) and that they choose tax instruments and tax rates to do so. If the instrument is a tax on incomes, the left government, even if it is a dictator, must consider incentive effects on investment. Then the
optimal tax rate of a pure pro-labor government will not be very high. There will be a difference, but not large. In a linear economy, with output/capital ratio $v$, log utility function, market labor share $m$, and discount rate $\rho$, the optimal income tax rate of a dictator that represents homogeneous wage-earners is $\tau_L = (\rho/v - m)/(1 - m)$, which will be low however one calibrates the economy.

(3) While economic constraints operate under any political regime, to focus on democracies, consider the effects of electoral competition. A static formulation will suffice (for a fully dynamic version, allowing for time inconsistency, see Persson and Tabelini 2000, Chapter 12). Assume that individual incomes $y_i$ are distributed log-normally according to $y_i \sim LN(0, \sigma^2)$, where $\sigma^2$ is the variance of the log of incomes. The policy instrument is a proportional tax on incomes, $\tau$. Tax revenues are distributed under a balanced budget as uniform transfers and they are consumed, so that tax rates uniquely determine the extent of redistribution. Let the shadow cost of public funds be $\lambda$. Then the post-fisc income or consumption of $i \in N$ will be

$$c_i = (1 - \tau)y_i + \tau y(1 - \lambda \tau),$$

where $y$ stands for average income. The amount of income redistributed to/from $i$ is then

$$c_i - y_i = \tau[y(1 - \lambda \tau) - y_i].$$

There are two parties, $L$ and $R$, each of which maximizes the expected consumption of its constituency, which consists of people with low incomes for the left part and people with high incomes for the right one. If parties know the distribution of voters’ preferences, in the electoral equilibrium both parties converge to the peak preference of the voter with median income, which (in the interior) is

$$\tau^M = \frac{1 - y^M/y}{2\lambda} \equiv (1 - \Delta)/2\lambda,$$

where $y^M$ is the median income and $\Delta \equiv y^M/y = \exp(-\sigma^2/2)$. To get some sense of these numbers, here are illustrative values of $\tau^M$.

<table>
<thead>
<tr>
<th></th>
<th>Poland 1986</th>
<th>Mexico 1989</th>
</tr>
</thead>
<tbody>
<tr>
<td>$\lambda$</td>
<td>$\Delta \approx 0.82$</td>
<td>$\Delta \approx 0.59$</td>
</tr>
<tr>
<td>0.2</td>
<td>0.50</td>
<td>1.00</td>
</tr>
<tr>
<td>0.3</td>
<td>0.33</td>
<td>0.66</td>
</tr>
</tbody>
</table>

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1 All throughout we consider only income, rather than consumption, taxes. The reason is that while consumption taxes are investment neutral in a closed economy, they would be neutral in an open economy only if exiting capital were taxed at the same rate as consumption (Wallerstein and Przeworski 1995). Abolishing capital controls eliminates this possibility.
The equilibrium tax rates increase in income inequality and decline in the deadweight costs. But in this model, parties converge to the same platform even if they represent different constituencies.

As the preceding discussion suggests, even if countries were completely autarkic economically and sovereign politically, the range of choice of governments in capitalist democracies would be limited by the constraints originating from private property and from electoral competition. Private property implies that decisions about the allocation of resources are made privately and that they are sensitive to relative rates of return. Since policies affect rates of return, governments must anticipate the effect of their policies on the rate of utilization and the allocation of resources. Electoral competition, in turn, forces parties to anticipate the effects of their proposals and of actual policies on their chances to be elected and reelected. If they share beliefs about the distribution of voters and about the effects of alternative policies — and they have ample opportunity to learn from experience — parties are pulled toward the same platforms and policies.

2.2 Choice under Sovereign Autarky

To examine the effects of globalization on the range of policy choices, one cannot begin on the assumption that in a non-globalized world parties would represent citizens who want different things, would propose different policies, and implement them if victorious. Parties may represent different constituencies, but they face constraints originating from their local economy and they must win elections to pursue policies. Moreover, if they learn from experience, most of the time politicians of different stripes believe the same. As a result, most of the time, they do the same while in office. Hence, even in a world of autarkic economies and sovereign states, we would expect to find only limited differences between parties within each country and, if learning transcends borders, only small differences among governments of different countries facing the same conditions.\(^2\)

Given this conclusion, we might as well end the paper right here, just with a rhetorical question: “What is there for globalization to narrow?” But since we would not have fulfilled our task, we need to investigate under what conditions parties would offer different proposals and pursue different policies in an autarkic, sovereign country. We know from Roemer (2001) that divergence is to be expected in an electoral equilibrium if parties represent different interests and if they are uncertain about something.\(^3\) The former assumption is realistic, indeed, more plausible than the Downsian idea that parties care only about

\(^2\) Testing whether partisan control over the government affects policies and their outcomes is an industry that dates back to Hibbs (1977). This is not the place to summarize the results: our general conclusion is that they are highly unstable, depending on the policy realm, model specification, the treatment of econometric difficulties, and samples (all of which, by the way, are limited to the OECD countries).

\(^3\) Divergence should be also expected if the incumbent is satisfied with the status quo policy, while challengers innovate (Bendor, Mukherjee, and Ray 2001).
winning. The latter assumption is less persuasive, since parties have ample opportunity to learn over time. Suppose, however, that party leaders have strong priors and experience, about effects of alternative policies or about beliefs of voters, is noisy.

A relatively simple model of such situations is Roemer’s (2001, Section 5.2) Average-Member Nash Equilibrium, which captures a conception of a “perfectly representative democracy.” We modify this model slightly to be able to derive comparative statics with regard to income inequality. The intuitive idea is the following (formal statement is in the Appendix): Take the assumptions of the median voter model introduced above, but assume that the left party believes that the shadow price of public funds is low, \( \lambda = \lambda_L \), while the right party believes it is high, \( \lambda = \lambda_R \). Neither party knows what the voters believe: all politicians know is that \( \lambda \sim U[\lambda_L, \lambda_R] \). Each party maximizes expected average consumption of the people who vote for it. Party L proposes and implements \( \tau_L \); Party R offers and implements \( \tau_R, \tau_L \geq \tau_R \). In equilibrium, all individuals with incomes lower than some \( g(\tau_L, \tau_R; \lambda) \) vote for Party L and all those with incomes above it vote for Party R.

Armed with this model, we can calculate party platforms and the distance between them as a function of income inequality. Here are the results:

<table>
<thead>
<tr>
<th>( \Delta )</th>
<th>( \tau^M )</th>
<th>( \tau_L )</th>
<th>( \tau_R )</th>
<th>( E(\tau) )</th>
<th>( \tau_L - \tau_R )</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.90</td>
<td>0.25</td>
<td>0.30</td>
<td>0.14</td>
<td>0.26</td>
<td>0.16</td>
</tr>
<tr>
<td>0.80</td>
<td>0.50</td>
<td>0.55</td>
<td>0.27</td>
<td>0.46</td>
<td>0.28</td>
</tr>
<tr>
<td>0.60</td>
<td>1.00</td>
<td>1.00</td>
<td>0.62</td>
<td>0.88</td>
<td>0.38</td>
</tr>
<tr>
<td>( \Delta = 0.0 )</td>
<td>( \bar{\lambda} = 0.4 )</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0.90</td>
<td>0.25</td>
<td>0.27</td>
<td>0.09</td>
<td>0.23</td>
<td>0.18</td>
</tr>
<tr>
<td>0.80</td>
<td>0.50</td>
<td>0.51</td>
<td>0.17</td>
<td>0.41</td>
<td>0.34</td>
</tr>
<tr>
<td>0.60</td>
<td>1.00</td>
<td>0.95</td>
<td>0.39</td>
<td>0.75</td>
<td>0.56</td>
</tr>
<tr>
<td>( \Delta = 0.1 )</td>
<td>( \bar{\lambda} = 0.5 )</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0.90</td>
<td>0.17</td>
<td>0.20</td>
<td>0.07</td>
<td>0.17</td>
<td>0.13</td>
</tr>
<tr>
<td>0.80</td>
<td>0.33</td>
<td>0.31</td>
<td>0.13</td>
<td>0.29</td>
<td>0.18</td>
</tr>
<tr>
<td>0.60</td>
<td>0.67</td>
<td>0.64</td>
<td>0.29</td>
<td>0.55</td>
<td>0.25</td>
</tr>
</tbody>
</table>

As in the case of certainty, higher inequality, as represented by \( \Delta^{-1} \), is associated with higher expected redistribution, \( E(\tau) \), while higher expected dead-weight losses reduce redistribution. As uncertainty increases, partisan proposals diverge. More directly for our question, these simulations indicate that higher inequality is associated with larger policy difference between parties.

These are the results we will use as the benchmark to study the impact of globalization on partisan differences.
3 Globalization

Globalization may work in two ways: indirectly on conditions and directly on policies. Through trade and capital flows, globalization affects economic conditions in each country, so that even if policies are locally determined, they are affected by globalization. When countries lose some of their political sovereignty, national policies are directly influenced by some outside agents, whether or not they reflect national conditions. We consider these mechanisms in turn, first lifting the assumption of economic autarky and then of political sovereignty.

3.1 Economic Interdependence

3.1.1 Inter-country Differences

Let us begin again in a world in which all countries are economically autarkic and politically sovereign. All countries have identical distributions of income, so that the median voter dictates the same redistribution policy in all countries. Now lift the assumption of economic autarky, assuming that all countries open their borders to flows of commodities and of capital. Suppose that trade increases inequality in some countries (more developed or less developed: whichever you prefer), thus generating inter-country differences in income distribution. By the median voter mechanism, one expects a higher degree of redistribution in a country that became more unequal. But tax competition, arising from capital mobility, increases the costs of redistributing incomes, thus driving down the electorally optimal rates of redistribution in all countries. The combined effect of trade and capital openness will thus cause policies to diverge (via the inequality-redistribution path), while the net effect on the rate of redistribution in the now less equal country will depend on the relative magnitude of these two effects. A story of two countries may look as follows:

\[\text{Note that capital mobility may increase as a result of liberalizing the capital account but also as a result of increased trade, invention of new financial instruments, and developments in information technology.}\]
In the autarkic world, income distribution in the two countries is the same and so is the policy dictated by the median voter, $\tau^M$. As inequality in country $k$ increases, so does $\tau^M_k$. But the impact of tax competition is to reduce $\tau$ in both countries. Under the combined impact of trade and capital mobility, policies diverge, $\tau^M_k > \tau^M_j$, the tax rate in $j$ falls, so that $\tau^M_j < \tau^M_k$, while the direction of policy change in $k$ is indeterminate. Hence, if the effect of openness is to increase income inequality in the already more unequal countries, then policies chosen by sovereign countries will diverge from one another, while the rates of redistribution may or may not decline everywhere. Below we study other possibilities.

This argument is based on the assumption that capital mobility causes an additional deadweight loss if the tax rate in a country exceeds that of its closest competitor. Given the tax rate $\tau_k$ in the competing country $k$, the post-fisc income of individual $i$ in country $j$ is now

$$c_{ij} = (1 - \tau_j)y_{ij} + \tau_jy_j[1 - \lambda\tau_j - \lambda(\tau_j - \tau_k)],$$  

so that the median voter opts for and parties converge to

$$\tau^M_j(\tau_k) = (1 - \Delta_j)/4\lambda + \tau_k/4.$$  

Solving for the Nash equilibrium yields

$$\tau^*_j = [4(1 - \Delta_j) + (1 - \Delta_k)]/15\lambda,$$  

$$\tau^*_k = [4(1 - \Delta_k) + (1 - \Delta_j)]/15\lambda.$$  

9
Here are some illustrative values (for \( \lambda = 0.2 \)):\(^5\)

\[
\begin{array}{cccc}
\Delta_j & \Delta_k & \tau_j & \tau_k \\
0.8 & - & 0.50 & - \\
- & 0.6 & - & 1.00 \\
0.8 & 0.8 & 0.33 & 0.33 \\
0.8 & 0.6 & 0.40 & 0.60 \\
0.6 & 0.6 & 0.66 & 0.66 \\
\end{array}
\]

We can now parametrize Figure 1. Suppose that in the autarkic world both countries had \( \Delta = 0.8 \), so that their tax rates were \( \tau^M = 0.5 \). As an effect of trade, inequality in \( k \) increased to \( \Delta = 0.6 \). Poland, with \( \Delta \approx 0.82 \) in 1986 and \( \Delta \approx 0.62 \) in 1995 would be an illustration. If \( k \) had not opened its capital account, its tax rate would have been 1.00: this is the effect of inequality. Tax competition, in turn, brings the tax rate in \( k \) down to 0.6, which is still higher than under autarky, while reducing the tax rate in \( j \) from 0.5 to 0.4. Hence, as two autarkic countries with \( \Delta = 0.8 \) open to trade and capital flows, tax rates diverge, decreasing in the country where income distribution remained the same and increasing in the country where inequality increased. Note that if inequality had not changed in either country, tax competition would have the effect of lowering tax rates in both.\(^6\) But if openness had increased inequality in both countries, tax rates would have been higher in both in spite of tax competition.

Unless one introduces more assumptions than those found in Chinese astrology manuals, no conclusions follow. All one can say is that things are not as simple as they may appear. Economic openness may uniformly increase the rates of redistribution if its effect on inequality is universal and stronger than the effect of tax competition; openness may increase the variance if its effects on income distribution vary across countries; finally, openness may uniformly decrease redistribution if it has no effect on income distribution but it induces tax competition.

When theory is a poor guide, looking at data is sometimes of help. The average tax rate in the world increased somewhat and the variance did even more between 1975 and 1995. As Obstfeld (1998: 20) observes, "Looking at the effects of international tax competition so far, it is hard to argue that we see anything close to equivalent overall capital tax rate across countries, or equivalent levels of social spending." Eichengreen (1990), however, found that across-states tax variability in the United States, while far from zero, was much lower than within Europe. Hence, the verdict may not be yet in.

\(^5\) Note that even though we keep \( \lambda \) the same as in the autarkic world, the deadweight loss of taxation in country \( j \) is now larger as long as \( \tau_j > \tau_k/2 \).

\(^6\) As Persson and Tabellini (2000: 329) observe, "Tax competition does not pay: it simply distorts governments' incentives."
Estimates of the impact of economic openness on the degree of redistribution generate divergent results. Cameron (1978), Rodrik (1997), and Garrett (1998) argue that openness to trade increases economic volatility and creates demand for insurance via the public sector but Iversen and Cusack (2000) disagree, providing evidence from the OECD countries.\footnote{International financial integration depresses the spending levels of governments in Cusack (1997) and in Garrett and Mitchell (2000) but these results are not robust. Note that capital mobility may have contradictory effects on the tax rates: by increasing income inequality (Mundell 1957), it should lead to higher tax rates, but to the extent it induces tax competition, it should depress them. Another complication is that capital mobility may not influence the aggregate tax levels but just shift the burden from capital onto labor. Yet here again, econometric results are strangely diverse: while Rodrik (1997) found such an effect, Quinn (1997), Swank (1998), Garrett (2000), and Garrett and Mitchell (2000) discovered that capital taxation is either unchanged or even higher in countries with open capital accounts. This may be true again if capital openness at the same time increases inequality and induces tax competition and the two effects counteract one another. In the end, we are not sure what to believe.}

3.1.2 Trade and Capital Mobility: Intra-country Differences

To study the effect of trade and tax competition on partisan differences within countries, we now apply the model with uncertainty to an open economy. Everything is the same as in the autarkic country in which parties are not certain about $\lambda$, only post-fisc incomes are now given by (5). We do not solve for an equilibrium of tax competition, since all the necessary results can be shown without it. Hence, we take the tax rates $\tau_k$ as given and study partisan proposals in country $j$ as a function of income inequality, for $\lambda \in (0.1, 0.3)$.

<table>
<thead>
<tr>
<th>$\tau_k$</th>
<th>$\tau^M_j$</th>
<th>$\tau_L$</th>
<th>$\tau_R$</th>
<th>$E(\tau)$</th>
<th>$\tau_L - \tau_R$</th>
</tr>
</thead>
<tbody>
<tr>
<td>none</td>
<td>0.50</td>
<td>0.55</td>
<td>0.27</td>
<td>0.46</td>
<td>0.28</td>
</tr>
<tr>
<td>0.33</td>
<td>0.33</td>
<td>0.35</td>
<td>0.20</td>
<td>0.33</td>
<td>0.15</td>
</tr>
<tr>
<td>0.66</td>
<td>0.42</td>
<td>0.41</td>
<td>0.27</td>
<td>0.40</td>
<td>0.14</td>
</tr>
<tr>
<td>1.00</td>
<td>0.50</td>
<td>0.50</td>
<td>0.37</td>
<td>0.48</td>
<td>0.13</td>
</tr>
<tr>
<td>$\Delta = 0.8$</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>none</td>
<td>1.00</td>
<td>1.00</td>
<td>0.62</td>
<td>0.88</td>
<td>0.38</td>
</tr>
<tr>
<td>0.33</td>
<td>0.58</td>
<td>0.60</td>
<td>0.32</td>
<td>0.54</td>
<td>0.28</td>
</tr>
<tr>
<td>0.66</td>
<td>0.66</td>
<td>0.67</td>
<td>0.41</td>
<td>0.61</td>
<td>0.26</td>
</tr>
<tr>
<td>1.00</td>
<td>0.75</td>
<td>0.81</td>
<td>0.52</td>
<td>0.71</td>
<td>0.29</td>
</tr>
<tr>
<td>$\Delta = 0.6$</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The rows where $\tau_k$ is not given repeat the benchmark results for a closed country. As we see, tax competition invariably reduces partisan differences.
within each country. These differences seem not to depend on the actual tax rate in the foreign country (they are within rounding errors of about ±0.03). In the more equal country, partisan differences are reduced by about one-half, in the less equal country by about one-third. Increasing uncertainty to $\lambda \in (0.0, 0.4)$ without changing the expected value seems not to affect the distance between parties (the distance in the more equal country is still about 0.14 for all tax rates in $k$).

Why would tax competition not only reduce the expected tax rates but also the partisan differences? The right party wants taxes to be low even in a closed economy; if it offers positive tax rates, it is only because it is then more likely to win an election and implement less redistribution than the left party would have. The left party wants more redistribution. But when a country faces tax competition, redistribution becomes additionally costly. Given that the marginal cost of redistribution increases in the tax rates, the trade-off becomes steeper for the left party and it reduces its proposed rates by more than the right one. Hence, the proposals converge.

Consider the following scenario. Under autarky, both countries have relatively low inequality, $\Delta = 0.8$. As a result of opening, income inequality in $k$ increases sharply, to $\Delta = 0.6$, and tax competition emerges. Then the expected tax rate in $j$ falls from 0.46 to 0.33 and the partisan difference is halved, while the expected tax rate in $k$ increases somewhat, from 0.46 to 0.54, and partisan differences remain the same. Hence, even in politically sovereign countries, globalization will have reduced partisan differences in the country in which income distribution was not affected and will have increased the expected tax rate in the country that became more unequal.

### 3.2 Political Interdependence

Policies may spread from country to country through several, not mutually exclusive, mechanisms. One we already mentioned, namely, rational (Bayesian) learning. The second possibility is that everyone is doing what others are doing, either by coordinating policies or by pure emulation. The third is coercion, as typified by explicit conditionality of loans, grants, or aid. Finally, it is also possible that good ideas are so obvious that they spread like fire: once discovered or invented, they are instantaneously recognized as superior by almost everyone. If any of these mechanisms operate, policies converge across countries, almost instantaneously when they reflect a discovery of a superior idea, gradually when they entail learning or emulation, and conditionally when they involve coercion.

Meseguer (2001) examined the diffusion of four policies between 1950 and 1990: export orientation, privatization, participation in IMF programs, and central bank independence, the last not reported here\(^8\). She studied first whether

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\(^8\)The database for trade liberalization focused on 51 developing countries; the privatization database referred to 37 Latin American and industrial countries, and for IMF, models were run on 135 developed and developing countries. Central Bank Independence is not reported since in most countries banks were independent at the first observation.
Policy diffusion resulted from a Bayesian learning process. In her model, governments start with some prior beliefs about the effectiveness of alternative policies, $p = \{A, B\}$. In each period, $t$, governments observe the average growth rates associated with these policies as well as their variability. In the view of experience, governments update their beliefs about the average and about variability of outcomes. Policy choices at $t$ are based on posterior beliefs, which become priors at $t+1$. The updating process proceeds sequentially. At $t+1$, new information is observed, beliefs are updated and a new choice is made. Policy choice is a comparative exercise: governments choose the policy that, according to their posterior beliefs, will yield the best outcome with the least or most variability.

As distinct from rational learning, emulation does not entail an understanding of the links between policies and outcomes (Rose 1991, Bennett 1991, May 1992). The number of other countries engaged in a particular policy during a particular year is a proxy for the general climate of opinion regarding that policy realm (Broz 1999). Governments may tie their hands or emulate policies pursued elsewhere for electoral reasons: if these policies are domestically unpopular, the political costs of adopting them are lower when many other countries are pursuing them (Vreeland 2001). But they may also subject themselves to common policy prescriptions or emulate policies of other countries because they believe that these policies are preferred by foreign investors and international financial institutions (Simmons and Elkins 2000, Weyland 2000). Emulation may thus be a way of self-imposing or anticipating external constraints.

Finally, it may be that governments do not choose but are forced to accept policies imposed by third parties. Coercion captures this idea and conditionality epitomizes it. Governments need loans, aid, or private investment and they adopt policies preferred by foreign agents in exchange for them.

To test these hypotheses, Meseguer estimated a Markov chain model in which transition probabilities depend on policy results, the number of other countries that pursue them, and the participation in IMF programs. The results concerning the probabilities of switching to export-orientation, to privatizing, and to participating in IMF programs are shown below. Experience is structured at three levels: one’s country, the region a country belongs to, and the world. Hence, there are three sources of learning. Since conditions are likely to differ in the region and even more in the world, the hypothesis is that governments learn more from own experience than from region and world experience (Robinson, 1998). In turn, due to similarity in conditions, the experience of neighboring countries will be more informative than the experience in the world. The num-

---

9 If results are very noisy, average economic performance conveys little information about the effectiveness of policies.

10 Depending on risk postures.

11 The caveats to this story are abundant. Recent research has shown that governments may seek conditionality in an attempt to curb opposition to policies they want to implement (Vreeland, 2000). In quite a few cases, conditionality helped nudge governments in the direction of adopting particular policies, but politicians were already inclined to move (Stallings 1992, Kahler 1992, Haggard and Williamson 1994).
ber of other countries under each of the policies (emulation) and participation in IMF programs (coercion) complete the model. (t-values in parentheses).

<table>
<thead>
<tr>
<th>Policy</th>
<th>Trade</th>
<th>Privatization</th>
<th>IMF</th>
</tr>
</thead>
<tbody>
<tr>
<td>LaggedPolicy</td>
<td>-4.99***</td>
<td>-2.70***</td>
<td>-1.19***</td>
</tr>
<tr>
<td></td>
<td>(-5.96)</td>
<td>(-5.67)</td>
<td>(-8.61)</td>
</tr>
<tr>
<td>Own Experience</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Average</td>
<td>0.02</td>
<td>0.16**</td>
<td>0.02**</td>
</tr>
<tr>
<td></td>
<td>(0.53)</td>
<td>(2.23)</td>
<td>(3.08)</td>
</tr>
<tr>
<td>Variability</td>
<td>-0.07</td>
<td>-0.28</td>
<td>-0.02</td>
</tr>
<tr>
<td></td>
<td>(-1.17)</td>
<td>(-0.58)</td>
<td>(-0.79)</td>
</tr>
<tr>
<td>Regional Experience</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Average</td>
<td>0.32**</td>
<td>0.23*</td>
<td>-0.02</td>
</tr>
<tr>
<td></td>
<td>(1.98)</td>
<td>(1.65)</td>
<td>(-0.98)</td>
</tr>
<tr>
<td>Variability</td>
<td>-0.29</td>
<td>0.26</td>
<td>0.05*</td>
</tr>
<tr>
<td></td>
<td>(-1.53)</td>
<td>(0.70)</td>
<td>(1.72)</td>
</tr>
<tr>
<td>World Experience</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Average</td>
<td>0.002</td>
<td>0.22*</td>
<td>0.21***</td>
</tr>
<tr>
<td></td>
<td>(0.01)</td>
<td>(1.72)</td>
<td>(2.66)</td>
</tr>
<tr>
<td>Variability</td>
<td>-0.68***</td>
<td>-0.12</td>
<td>0.19***</td>
</tr>
<tr>
<td></td>
<td>(-2.15)</td>
<td>(-0.77)</td>
<td>(3.21)</td>
</tr>
<tr>
<td>#Others</td>
<td>0.63***</td>
<td>0.75***</td>
<td>0.0005</td>
</tr>
<tr>
<td></td>
<td>(3.95)</td>
<td>(3.89)</td>
<td>(0.012)</td>
</tr>
<tr>
<td>IMF</td>
<td>0.46**</td>
<td>0.19</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(2.22)</td>
<td>(0.66)</td>
<td></td>
</tr>
<tr>
<td>Pr(F)</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>N</td>
<td>1171</td>
<td>586</td>
<td>3488</td>
</tr>
</tbody>
</table>

In general, it seems that some rational learning, whether about the average performance or about the risks involved, is an inherent mechanism of international diffusion of policies. Governments learn either from the experience of their own countries or from those of their region and the rest of world. They exhibit different risk postures with regard to different policies. Yet with regard to some policies, they also emulate blindly or respond to direct pressures, as epitomized by IMF conditionality. Finally, note that since patterns of diffusion are gradual, there is little room for an explanation based on an uncontested superiority of new ideas.

The most salient result originates from the contrast between the switch to export orientation and the decision to begin privatizing. While privatization entails emulation, it is driven by rational learning: governments decide to privatize because they see that privatization increases growth rates. In contrast, the decisions to pursue export-oriented policies take into account only the performance within a particular region and exhibit strong risk aversion when governments...
look at the rest of the world. They are driven primarily by policy coordina-
tion (or emulation) and they are adopted when countries participate in IMF
programs.

Presumably, even sovereign governments would learn from the experience
of other countries. They might also emulate fashionable policies, even if one
can suspect that increased international interactions make emulation easier.
But to the extent that the number of other countries that pursue a particular
policy indicates policy coordination or an anticipation of the policy preferences
of donors and investors, emulation constitutes evidence of foreign influence over
domestic policies. The impact of IMF, finally, is a piece of hard evidence that
countries open themselves to trade under external pressures.

4 Conclusions, or absence thereof

First, a summary:

(1) There are reasons to expect that redistributive policies would differ little
between similar countries and between parties representing different constituencies
even if the world consisted of autarkic and sovereign countries.

(2) The effect of economic openness on policy differences between and within
countries depends on its impact on income distribution and on tax competition.
If inequality increases in the more unequal countries, tax rates diverge; oth-
erwise, they converge. Tax competition dampens redistribution everywhere.
When parties represent different constituencies and are uncertain about some-
thing, rising inequality increases partisan differences but tax competition re-
duces them.

(3) Direct external influences on national policies—whether in the form of
a general opinion climate or explicit conditionality—seem to be highly policy-
specific. Policies concerning central banks independence are not transmitted
across borders by learning, emulation, or conditionality. On the other hand,
trade policies entail all the three mechanisms. There are reasons to believe
that international pressure forced some countries to trade; as more countries
traded, keeping trade barriers became more costly; and governments learned
from experience that lowering trade barriers is superior for growth.

This entire analysis is based on two assumptions: (1) that the relative income
of the decisive voter—her percentile in income distribution—does not depend on
income inequality and (2) that this voter demands more redistribution in more
unequal societies. Given these assumptions, conclusions concerning the impact
of globalization on policy choice are contingent on economics: the impact of
openness on inequality.

Unfortunately, the conclusions should be even more contingent. Both statisti-
cal analyses of the OECD countries (Rodriguez 1998) and anecdotal evidence
from less developed ones show that more unequal countries may in fact redistrib-
ute less, rather than more. The decisive voter may be relatively more a-
ten in
more unequal countries, either because relatively or absolutely poor people do
not vote or because the relatively richer people have more influence over politics (Benabou 1996, 2001). Hence, even if demand for redistribution increases as the decisive voter becomes relatively poorer, the decisive voter may have higher relative income in more unequal countries. In turn, there are several arguments to the effect that the decisive voter may want more redistribution in more equal societies. Moene and Wallerstein (2001) argue that the demand for redistribution depends on the design of the redistributive policies, specifically, that demand for income insurance declines as inequality increases. Perotti (1996) initiated a line of analyses in which the effect of income distribution is different depending on per capita income. Benabou (2001) shows that if redistribution is productive, it is U-shaped with regard to inequality. Hence, it is at least equally plausible that via a combination of these mechanisms rising inequality reduces rather than, as we have been assuming, increases the demand for redistribution in electoral equilibria.

While we have not replicated all the analyses, intuitively one would expect the following:

<table>
<thead>
<tr>
<th>Effect of inequality on redistribution</th>
<th>Increases</th>
<th>Taxes increase</th>
<th>Divergence</th>
<th>Convergence</th>
<th>???</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Taxes increase</td>
<td>Taxes increase</td>
<td>???</td>
<td>???</td>
<td>???</td>
</tr>
<tr>
<td></td>
<td>????</td>
<td>????</td>
<td>Divergence</td>
<td>Convergence</td>
<td>???</td>
</tr>
<tr>
<td></td>
<td>????</td>
<td>????</td>
<td>???</td>
<td>???</td>
<td>???</td>
</tr>
</tbody>
</table>

As we see, given our current state of knowledge, both about economic and political mechanisms, everything is possible.

5 Globalization and Democracy

Prima facie observation indicates that people around the world perceive a growing "democratic deficit" and that they associate their dissatisfaction with democracy to globalization. But what is it that they object against? Do they object against having no choice or against having bad choices?

It is not obvious that democrats should value having choice in itself. Our search – by the nature of things incomplete – found only one democratic theorist who requires democracy to offer distinct alternatives to citizens: Bobbio, whose minimal definition of democracy contains a condition that "those called upon to take decisions, or to elect those who are to take decisions, must be offered real alternatives" (1987: 25).\(^\text{12}\) Yet whenever different parties propose

\(^\text{12}\) Elsewhere, he argues that "to pass a judgement today on the development of democracy in a given country the question must be asked, not "Who votes?" but "On what issues can one vote?" (1989: 157).
or pursue similar policies, bells toll alarms about the functioning of democracy and about the legitimacy of electoral institutions. Elections are seen as pointless: “Tweedledum and Tweedledee,” “bonnet blanc et blanc bonnet.” When parties propose the same policies, there is nothing to choose; when they follow the same policies in office, electoral choices are inconsequential. Democracy is anemic. Observing democratic governments in Western Europe since World War I, one is struck how old is this complaint:

(1) During a 1922 budgetary debate in the Swedish parliament, the Liberal leader, Eden, observed that the Social Democratic government was “bourgeois to an unexpectedly high degree,” to which Hjalmar Branting, the Prime Minister replied, “I believe that amongst the Swedish labouring masses who have given their votes to our party there exists a high political training and an insight into the exigencies of the situation. I think that in relying upon this we have dared to put into practice a policy that is (to quote Herr Eden) as ‘bourgeois’ as it could possibly be, in accordance with his own description.” (Tingsten, 1973: 251). Leftist analyses of the MacDonald government as well as of the Front Populaire blamed them for not breaking with the standard economic wisdom of the time, accused them of “selling out,” and questioned whether elections can make a difference in a capitalist economy (Miliband 1959, Lefranc 1965, Weil 1970, Greene 1969).

(2) The “Keynesian welfare state” evoked the same reaction, which exploded in 1968. The Cohn-Bendit brothers (1968) saw electoral competition as a choice between “gin and tonic and tonic and gin.” The complaint that parties make no difference was passionate: “The working class is lost in administering its imaginary bastions. Comrades disguised as notables occupy themselves with municipal garbage dumps and school cafeterias. Or are these notables disguised as comrades? I no longer know.” (Konopnicki 1979: 53)

(3) Now again, the perception that choices facing all governments follow similar policies is widespread. Even The Economist (2 May 1995) triumphantly observed that “the differences between New Labour and watered-down Thatcherism are far more of style than of substance.” The diagnosis is shared by critics of globalization: “Two things tend to happen: your economy grows and your politics shrinks.... The Golden Straitjacket narrows the political and economic choices of those now in power to relatively tight parameters.... Once your country puts on the Golden Straitjacket, its political choices get reduced to Pepsi or Coke.” (Friedman 2001)

Is globalization responsible for the withering away of democratic choices? To the extent that national policies are directly influenced by outside actors — say governments follow IMF request to reduce spending in the face of glaring inequality — the inability of citizens to determine national policies through a democratic process is apparent. Even if a unique policy is optimal for everyone given the external constraints, citizens have no say in the determination of policies. If not joining the WTO or not obeying the dictates of a Washington “consensus” subjects a country to stiff economic or political sanctions, all governments will find it in the best, albeit constrained, interest of their country to
join and obey. True, citizens may vote out of office a government that pursues this policy. But if the incumbent government adopted this policy because it had to, then all governments will do the same. Hence, the political processes within each country will be just inconsequential. Whatever parties propose and whoever gets elected, policies will be the same (Stokes 2001). While the democratic process is internal to each country, the real locus of decision making is external. At most, citizens will be able to decide which party would best implement the same policy. Conditionality often breeds riots, emulation generates the perception that local policy makers blindly imitate wisdom of foreign origin.\(^\text{13}\) When the policy advice is accompanied by a dose of hypocrisy – "do as we say," rather than "do as we do"– these perceptions turn bitter. The only way to empower national citizens would be to subject international relations to direct democratic control, a doubtful possibility according to Dahl (1999).

Globalization may also provide an excuse for the Left uses to escape its constituency. Claiming that redistribution is costly advances the interests of constituencies of right-wing parties. In turn, once right-wing parties proclaim that governments are limited in what they can do, the best response of left-wing parties is to say the same. Otherwise, the Left would be setting for itself a higher bar than the right. Hence, there may exist some kind of collusive electoral equilibria (Harrington 1993) in which parties plead impotence in the face of globalization. As Rodrik (1997-98: 16) put it, “Employers are doing so because it is in their interest, at least in the short run; politicians are doing so because it is convenient to plead helplessness in the face of the global economy.” Forced to choose between globalization and the irresponsibility of the Left, The Economist (27 September 2001) predictably opts for the latter. In an article entitled "A crisis of legitimacy: People are fed up with politics. Do not blame globalisation for that," the writer observes that "In all kinds of ways, again and again, governments and their political opponents have used the supposed demands of globalisation to deny responsibility. If you tell people you are helpless often enough, they will start to believe you.” The Left is the culprit:

One of the principal themes in western politics of the past ten or 15 years has been the 'modernisation' of the left. Ex-socialist and moderate left-of-center parties alike have moved to the centre, and in some cases past it.... 'The world has changed,' Tony Blair tells his traditional party supporters, 'but our values have not.' In other words, if we only could, we would still like to do all the things leftist parties have traditionally done. We cannot, because the world now follows different rules.... We have to sound more like our conservative opponents – and the reason is globalisation.

But democracy may offer choices and it may work in a perfectly representative way under the constraints, and people may still object against global-
ization and, correctly, see democracy as impotent. Consider a country (with 

\[ E(\lambda) = 0.2 \]

which experiences increased inequality as a result of globalization 

(cj is the post-fisc income of the median voter under different proposals): 

<table>
<thead>
<tr>
<th>( \Delta )</th>
<th>( \tau^M )</th>
<th>( \tau_L )</th>
<th>( \tau_R )</th>
<th>( c_M )</th>
<th>( c_L )</th>
<th>( c_R )</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.8</td>
<td>0.50</td>
<td>0.55</td>
<td>0.27</td>
<td>0.85y</td>
<td>0.86y</td>
<td>0.84y</td>
</tr>
<tr>
<td>0.6</td>
<td>0.66</td>
<td>0.67</td>
<td>0.41</td>
<td>0.77y</td>
<td>0.77y</td>
<td>0.73y</td>
</tr>
</tbody>
</table>

The partisan difference remains the same, so that voters have as much choice as before. The proposed tax rates increase. But these taxes will not compensate one half of the population for the increased inequality. However policy is determined and whoever wins, at least a half of the voters will be worse off under globalization, even if democracy works perfectly: parties offer distinct proposals, every citizen is represented by a party, everyone votes, and the winner is decided by majority vote.

The median voter will not be worse off under globalization if economic openness increases average income by at least 10 percent. Whether globalization has this effect, we do not know: our bet is that if one were Bayesian about it, no effect would lie smack in the middle of 95% confidence interval. But we know that, à la Besley and Coate (1997), the median voter would not have opted for opening commodity and capital markets unless she expected average income to increase by at least this amount. If the median voter in the isolated world could be assured that she would benefit from opening the economy even if the average income increased less than 10 percent, she would have opted for the efficient, income increasing, policy. But commitment is not possible: once the country is open, inequality increases, and democratically determined policy will leave the median voter worse off.\(^{14}\)

The fact seems to be that voters are rarely consulted with regard to decisions to lower tariffs or to abolish capital controls. These are "technical" decisions, presumably made by competent people with an eye on efficiency. Voters are left to cope with their distributional consequences. But once these decisions are made, the losers, even if they constitute a majority, are unable to overcome their consequences even when parties continue to represent them, policies are decided by majority rule, and parties implement their electoral mandates.

The story may thus be the following. Under foreign influence – emulation or conditionality – governments plunge into an open world without a democratic consultation. Democracy continues to function after the economy is open. But once a country enters the global world, the constraints shift, and once they shift, the electoral process cannot compensate the losers. Democracy is impotent against the constraints imposed by economic openness. Here is Dunn’s (2000: 152) analysis of the United Kingdom:

---

\(^{14}\)This is why arguments that globalization increases efficiency or total output and reduces governmental rent-seeking (see Vanberg 2000) are irrelevant. Potential Pareto superiority (compensation criterion) is neither here nor there if the promise of compensation is not credible.
In retrospect Mrs. Thatcher’s most decisive political act was the complete dismantling, at the very beginning of her first term of office as Prime Minister, of all controls over capital movements into and out of the economy. What this did was to establish a space of political competition between capital and organized labour in which, in the end, the latter could only lose, and in which it was relatively simple to present its predestined loss as unequivocally in the interest of the population at large.

Now, if you think that Mrs. Thatcher was, as she never tired to emphasize, elected to do whatever she wanted, then the fact that redistribution of income ceased to be an option is not a bad limitation on choices. Voters gave Mrs. Thatcher a mandate to do whatever she thought was best; after she did it, some people did not like the choices they had: too bad. But if you think that people faced with the option of dismantling capital controls would have rejected it anticipating the opportunity set they would face as the result, then the meagerness of options induced by globalization is a bad limitation. If people bind themselves knowingly, they should not complain even if they do not like their bounds. But if they are bound involuntarily, they have every right to be mad.

In the end, what is not clear is whether the dissatisfaction with democracy arises from the erosion of partisan differences or from policies enclosed within the partisan spectrum. Do citizens feel politically impotent because there is little room between the walls or because the walls are in a bad place? Do they object against not having the freedom to choose or against the policies they can choose?

6 Appendix

6.1 Average-Member Nash Equilibrium

Let the policy be a proportional tax on incomes, \( \tau \in (0, 1) \). The tax revenue is entirely spent on transfers, which are consumed. The budget is balanced. Then the consumption (post-fisc income) of an individual \( i \in N \), with pre-fisc income \( y_i \), is

\[
c_i = (1 - \tau) y_i + \tau y (1 - \lambda \tau),
\]

where \( y \) is average income.

Given any pair of tax rates, \( \tau_L \geq \tau_R \), let \( \overline{y}(\tau_L, \tau_R; \lambda) \) be the income level such that \( c(\tau_L) = c(\tau_R) \). Then

\[
\overline{y}(\tau_L, \tau_R; \lambda) = y[1 - \lambda(\tau_L + \tau_R)].
\]

The subset of individuals who prefer \( \tau_L \) to \( \tau_R \) is then
\[(\tau_L, \tau_R; \lambda) = \{y_i | y_i < \bar{y}(\tau_L, \tau_R; \lambda)\}. \tag{9}\]

If incomes are distributed according to \( F \), which we take to be drawn from \( y_i \sim LN(1, \sigma) \), then

\[ F(\tau_L, \tau_R; \lambda) = F[\ (\tau_L, \tau_R; \lambda) ] = F[\bar{y}(\tau_L, \tau_R; \lambda)] \tag{10} \]

is the proportion of voters preferring \( \tau_L \) to \( \tau_R \), given \( \lambda \).

Assume now that there are two parties, \( L \) and \( R \). Party \( L \) represents the average voter in \( \tau_L \), while party \( R \) represents the complement of this set. The income of the average member of \( L \) is then

\[ y_L = \int_0^\infty f(y_i) y_i dy_i, \tag{11} \]

and of the average member of \( R \) it is

\[ y_R = \int_y^\infty f(y_i) y_i dy_i. \tag{12} \]

Party \( L \) solves

\[ \max_{\tau_L} U_L = \pi(\tau_L, \tau_R) c_L(\tau_L) + [1 - \pi(\tau_L, \tau_R)] c_L(\tau_R), \tag{13} \]

and party \( R \)

\[ \max_{\tau_R} U_R = \pi(\tau_L, \tau_R) c_R(\tau_L) + [1 - \pi(\tau_L, \tau_R)] c_R(\tau_R), \tag{14} \]

where \( \pi(\tau_L, \tau_R) \) is the probability that party \( L \) wins, given that the proposals are \( \tau_L, \tau_R \).

Following Roemer (2001, definition 5.1), the Average-Member Nash Equilibrium of this game is a triple \((\bar{\gamma}^*, \tau_L^*, \tau_R^*)\) such that

\[
(1) \quad U_L(\tau_L^*, \tau_R^*) \geq U_L(\tau_L, \tau_R^*) \forall \tau_L \in [0, 1]
\]

\[
U_R(\tau_L^*, \tau_R^*) \geq U_R(\tau_L, \tau_R) \forall \tau_R \in [0, 1],
\]

\[
(2) \quad \bar{\gamma}^* = \bar{y}(\tau_L, \tau_R; \lambda).
\]

Now, if parties know everything, then \( \tau_L^* = \tau_R^* = \tau^M \), \( (\tau^M, \tau^M) = \{y_i | y_i < \bar{y}(\tau^M, \tau^M)\} \), \( F(\tau^M, \tau^M) = 1/2 \), and \( \pi(\tau^M, \tau^M) = 1/2 \), where

\[ \tau^M = \frac{y - y^M}{2\lambda y} = (1 - \frac{y^M}{y})/2\lambda. \tag{15} \]

Note that \( \bar{y}(\tau^M, \tau^M; \lambda) = y[1 - \lambda(2\tau^M)] = y[1 - \frac{y - y^M}{\bar{y}}] = y^M \). Hence, Party \( L \) represents the average voter among those voters whose incomes are below the median, while party \( R \) represents the average voter among those whose income is above the median. All voters with incomes below the median vote for \( L \) and
all those with higher incomes vote for $R$. Parties converge to the ideal point of the median voter; they divide the electorate in halves, and the winner is decided by a flip of a fair coin.

Now, to introduce uncertainty, assume that in the electoral campaign Party $L$ tells the voters that $\lambda = \bar{\lambda}$, while Party $R$ tries to convince the voters that $\lambda = \overline{\lambda}, \overline{\lambda} > \bar{\lambda}$. Neither party is certain what voters believe as the result: all the parties know is that $\lambda \sim U[\bar{\lambda}, \overline{\lambda}]$. The probability that Party $L$ wins is now

$$
\pi(\tau_L, \tau_R) = \begin{cases} 
0 & \text{if } \overline{F}(\lambda) - 1/2 < 1/2 \\
\frac{F(\lambda) - 1/2}{\overline{F}(\lambda) - F(\lambda)} & \text{if } 1/2 \in F(\overline{\lambda}), F(\lambda) \\
1 & \text{if } F(\overline{\lambda}) > 1/2
\end{cases}
$$

(16)

To calculate the separating income, in the numerical simulations, we assume that the actual realization of $\lambda$ is $E(\lambda)$.

Introducing free capital flows modifies (6) to

$$
c_{ij} = (1 - \tau_j)y_{ij} + \tau_jy_{j}[1 - \lambda\tau_j - \lambda(\tau_j - \tau_k)].
$$

(17)

The separating income becomes

$$
\overline{y}_j(\tau_{jL}, \tau_{jR}, \tau_k, \lambda) = y_j[1 - \lambda[2(\tau_{jL} + \tau_{jR}) - \tau_k]]
$$

(18)

The choice of the median voter in $j$ is

$$
\tau_j^M(\tau_k) = (1 - \triangle_j)/4\lambda + \tau_k/4.
$$

(19)

The rest is modified appropriately.

7 References


