Chapter 6

The Political Economy of Wage Bargaining and Electoral Redistribution

6.1 Introduction

The dichotomy between state and market has been a powerful conceptual template for understanding how the power that individuals derive from their property rights and the power they obtain from their political rights interact in contemporary societies. The study of how capitalist economies based on private property operate against the backdrop of one-man-one-vote decision making has brought about a period of remarkable intellectual fertility for political economy. The vast literature on electorally driven redistribution is just one such example. Recently, a large and valuable crop of scholarship informed by rational-choice theory has weighed in on this topic, adding much to our systematic understanding of the problem (Meltzer and Richard, 1981; Boix, 2003; Roemer, 2001a).

But elections embody only a fraction of the political rights citizens enjoy in modern democracies; voting is not the only source of power besides property. The polis and the market
interact, and often clash, in ways that overflow the channels of majority rule. Democracy is more than voting, so much so that we often hesitate to label countries as democratic if all they do is hold elections. Democracy also confers upon individuals the right to engage in collective action through the freedoms of thought, speech and association.

Through the systematic analysis of citizens’ preferences and electoral institutions we have attained some degree of understanding of the implications of voting rights for the political economy of contemporary, market-based societies. Likewise, I believe that an operational theory of collective action can help us understand the politico-economic ramifications of these other democratic rights.

In this chapter I will offer a thumbnail sketch of how this could be accomplished by providing a simplified model of a market economy where agents can not only vote but also combine in collective action. Not much can be expected by the way of precision and detailed texture from such a model, but I believe it can serve as a useful benchmark for future research in much the same way as the earlier formulations of economic redistribution through electoral mechanisms made possible more detailed work over time.

6.2 A Limitation of Electoral Models

By now it is a well-established proposition that if the majority in a country is “poor,” that is, if median income is below average, something that occurs in virtually all the sizeable world economies, we should expect universal suffrage to lead to redistribution. Powerful as this insight is, it is deficient in a way that, although originating in a purely technical matter, has tremendous conceptual implications.

One of the best-known results in the mathematical theory of voting is that, under some general conditions, voting on the distribution of some amount of money constitutes a game with no equilibrium (e.g., Coughlin (1992)). To circumvent this difficulty, the standard models of progressive taxation impose constraints over the game until it becomes amenable to the
median-voter theorem. The single most important constraint of this kind is the restriction to a one-dimensional policy space: a flat tax rate.

What begins as a seemingly innocent technical assumption creates a substantive problem. True, under standard conditions, the median voter is likely to form a coalition with those poorer than him to expropriate (at least part of) the wealth of the rich. But, could not the rich counteract this by offering the median voter the possibility of joining an alternative coalition to expropriate the poor? On the face of it, this seems unlikely. By definition, the poor have little wealth to expropriate; such coalition would not be very attractive.

This will not do. Conceivably, the rich could make the deal more attractive by sharing some of their wealth, but less than what would otherwise be expropriated. Satisfying the distributional demands of the median voter is likely to be cheaper than satisfying the demands of the poorest ones.

Mathematically, this opens a can of worms. If we allow all types of distributive coalitions, we are back to the original problem of the nonexistence of an electoral equilibrium. Recently, by introducing the concept of Pary Unanimity Nash Equilibrium (PUNE) John Roemer has addressed this problem, showing that these type of models do have equilibria, albeit of a different kind (Roemer, 2001b). One major reason for restricting ourselves to the one-dimensional case is thus removed.

For simplicity, in what follows I will relax the assumption of one-dimensional economic policy but will not adopt a policy space encompassing all the possible distributive policies. My focus is not exclusively on electoral distribution but also on how it interacts with organized collective action.

Let me state bluntly my central thesis, even if later I will have to add the corresponding qualifiers to make it more scientific: the basic mechanism through which the poor can stop this coalition of the rich with the median voter is collective action. Moreover, such a coalition has, in fact, emerged when collective action has not been able to stop it.
This statement may sound outlandish. Taken at face value, it would imply that in some countries we should observe poll taxes or even regressive taxes, two fiscal arrangements that are hard to come by. But this fixation with taxes as the distributive mechanism par excellence, although a convenient analytical tool, can fail descriptively in any but the simplest exchange economies, populated by independent producers. In a modern economy we need to look at the distributional aspect of the factors’ markets, the quintessential site of collective action in contemporary politics.

6.3 Distributive Coalitions in an Economy with Factors’ Markets

To fix ideas, let’s imagine an economy with only two factors of production: capital and labor. We can let capital stand for all the forms of accumulable wealth, including land or even skills. For simplicity, assume that the stock of capital is fixed but that its distribution is unequal so that the median holding of capital is smaller than the average. Much of the basic intuition can be understood by thinking of an economy with three sets of agents: proletarians, that is, agents with no capital; the middle classes, or agents with median capital holdings; and capitalists, agents with above-average capital.

If every agent in this economy were an independent producer, combining his labor with whatever capital he happens to hold, taxing income would be the only possible vehicle of redistribution. But in a modern economy, capital and labor are traded in markets. This implies that an agent’s income is determined not only by the market value of his output, but also by the market value of his factor endowment: factor markets, especially the labor market, have a large component of implicit redistribution.

To stick as closely as possible to the standard models of political redistribution, let’s restrict our attention to flat tax rates. As a mechanism to transfer income from the rich to the poor and the middle classes, taxes have several advantages. Even with a flat tax, the rich will end up financing a
larger share of the public transfers, and the richer they are, the more they will do so. But, as economists have long recognized, taxes, except poll taxes, have distortionary effects that reduce economic output. Taxes that affect the choice of labor over leisure will reduce labor supply and, through it, aggregate income. Let’s call this the “incentive effect” of taxation. Beyond a certain point, the incentive effect is so large that further increases in taxes may reduce the total amount of income transferred to those on the bottom half of the income distribution.

There is, however, a problem that complicates the political economy of taxation: even within the pool of net recipients of transfers from the rich, the incentive effect is felt differently by different agents. For a proletarian, the incentive effect has two components: the reduction in net transfers once the tax rate hits a certain threshold and the reduction in employment. Increased tax rates reduce tax revenue only at very high levels whereas the effects on employment can be felt before that extreme arises: the second component kicks in faster. But taxation also offers a way to mitigate the impact of this employment effect. Through public spending, the proletarian can obtain some degree of income support, some degree of nonmarket income, so to speak, to compensate, at least in part, for the loss of market income.

For middle-class citizens, the situation is different because the incentive effect has a third component: reduced labor supply reduces the marginal productivity of capital, thus reducing the return they obtain from their capital holdings. Income transfers that are large enough to compensate workers for the loss of wages are not large enough to compensate the middle classes for the additional loss of capital returns; as a tool for redistribution, taxation is less attractive for the middle classes than for the proletarians.

This creates a fracture in the would-be redistributive coalition. Once we consider factor markets, it becomes misleading to speak of the “poor” as a unified group; agents that we could classify as poor for having income below average are at odds with each other because of their different factor endowments.
In this model, the optimal policy for the middle classes would be a combination of instruments to transfer income from the rich while at the same time keeping the supply of labor as abundant as possible, in other words, keeping the workers’ leisure as expensive as possible in order to keep high employment levels with their positive effect on the marginal productivity of capital. In such a world, the middle classes would be extracting income from both the capitalists and the proletarians.

What kind of public policies would we expect from such arrangement? There would be some transfers, perhaps substantial from the upper half to the lower half of the distribution, but coupled with high degrees of “labor commodification” (Esping-Andersen, 1985). Low levels of income support for non-wage-earners would make it harder for workers with no capital to opt for leisure. We would expect low- or non-paid leaves (vacation, sickness, maternity) and little job security because keeping redundant labor during economic downturns negatively affects the returns to capital. The economy would display low levels of unemployment and would operate at or close to its “potential output.”

In this case, from the proletariat’s point of view, electoral democracy would not deliver all the redistribution it wants. If we look only at the effect of taxes, that is, the difference between “before-government” and “after-government” inequality, it would seem as if this economy has a progressive mechanism of redistribution in place. But this comparison masks a “before-government” inequality that the proletariat would want to address: the returns on accumulable wealth enjoyed by the owners of capital are paid for with high implicit transfers away from the proletariat’s leisure.

Having extracted all the redistribution that was possible through electoral mechanisms, a proletarian in this model can only redistribute further income toward himself by accumulating political power in other arenas. In other words, he can engage in collective action.

Thus far we have analyzed an economy where markets operate without any regulation. Although government inter-
vention through taxes affects the choices between labor and leisure, it leaves all the outcomes of these choices to be sorted out by the market. Now let’s consider what would happen in an economy in which the proletariat, by engaging in collective action, forces the polity to accept labor-market regulations. For simplicity, let’s focus on the issue of a minimum wage. Just as the usual assumption of a flat tax is flexible enough to capture much of what distributive policies do, the issue of a minimum wage can also serve us as a template to think of many of the available tools to regulate labor markets.

As the conventional analysis shows, the minimum wage generates unemployment. In that sense, it has an incentive effect similar to the one that taxes have. Just as before, this incentive effect reduces the marginal productivity of capital and hence is felt disproportionately by the middle classes who, to compound things, do not participate much, if at all, in the benefits.

This has a crucial political consequence: organized collective action aimed at bringing about a regulated labor market shifts the electoral center of gravity by inducing the middle classes to support levels of tax redistribution that it would have otherwise opposed. The reason is that labor-market regulation changes the costs and benefits of the mechanisms of redistribution available to the middle class.

To see how this happens, let’s go back to the unregulated economy we were studying before and imagine that the middle classes have obtained their optimal redistributive package: a combination of some taxes that capture income from the rich and labor commodification, which keeps the returns of capital high. If suddenly this economy were to introduce a minimum wage, the resulting decrease in labor supply would reduce capital returns. There is now a gap in the package that needs to be made up. But one of the sources for it is now closed by definition: labor supply has already fallen and, short of going back to the status quo ante, there is no way of raising it again. This means that the transfer shortfall can only be compensated for with higher taxes. Higher taxes have incentive effects and so it would seem as if this attempt to make up for
the gap would backfire. But this ignores that the incentive
effects of taxation occur at the margin, when taxation in fact
reduces labor supply. With the new reality, with the minimum
wage, the previous level of taxation is no longer reducing la-
bor supply at the margin; the minimum wage has already done
that. Within some interval, additional tax increases will have
no incentive effect. A few diagrams may clarify this.

Figure 6.1 represents a simplified version of the supply-
and-demand curves that describe the labor market. Wage
rate \( \hat{w} \) is what is commonly known as the reservation wage,
the wage rate below which workers are not willing to sell their
labor because their outside option is better. For wages lower
than \( \hat{w} \) labor supply is zero. Since wage \( \hat{w} \) is exactly the wage
that makes them indifferent between selling and not selling
their labor, at that level, labor supply is perfectly elastic. Fi-

nally, at wages above the critical level \( \hat{w} \), every worker in the
economy is willing to supply labor services, so that the supply
is perfectly inelastic.

The critical level \( \hat{w} \) depends on the workers’ outside op-
tion, which, in turn, depends on political decisions over in-
come support. Policies that increase the amount of income
that workers can obtain without concurring to the labor mar-
ket will increase \( \hat{w} \). In the economy we have been analyzing,
this means that higher tax rates, used to finance universalistic
income transfers, raise the safety net, improve the workers’ outside option and hence reduce labor supply.

With the particular shape of the labor-supply curve depicted here, the incentive effects of taxes kick in only if they raise $\hat{w}$ above $w_{fe}$, the highest reservation wage compatible with full employment. At reservation wages higher than $w_{fe}$, the equilibrium employment level, determined by the intersection between labor supply and demand, drops below $\bar{L}$. For the sake of argument, imagine that the middle classes’ capital endowment is such that the optimal tax rate for them is the one that generates a reservation wage of $\hat{w} = w_{fe}$.

![Figure 6.2: A Labor Market with Minimum Wage ($w$)](image)

Figure 6.2: A Labor Market with Minimum Wage ($w$)

Now introduce a minimum wage regulation, presumably as a result of the pressure exerted by trade unions. The new labor market, with a minimum wage, is depicted in Figure 6.2. There is now unemployment in the economy.¹ To be sure,

¹Technically speaking, there is a difference between the unemployment generated by minimum wages and the one generated by increased safety nets. The latter one is often called “voluntary” whereas the former is considered “involuntary.” According to this terminology, voluntary unemployment occurs at equilibrium wages because workers who are out of a job could find work if only they wanted to supply labor at a cheaper rate. I do not think this distinction is illuminating, especially in this model where many of the important effects have to do with output, which is affected by unemployment, whatever its nature. I register it, however, for the sake of completion and to allow the reader to situate this model in the context of the larger literature on labor markets.
unions may constitute something of a “labor aristocracy,” as their critics would put it, to the extent that they obtain secure and high-paying jobs for themselves at the expense of creating unemployment for other workers in the economy. On these grounds, it would seem as if unions are working against the interest of other propertyless agents in the economy. Whether this is true depends on many specific details. Conceivably, trade unions could devise job-sharing and wage-sharing mechanisms (often dubbed “socialism in one class” (Scharpf, 1991)) to extend the gains obtained from these high-paying jobs to those who are left out. There might be good political reasons to do so.

But if we look beyond the shop floor, the minimum wage has another far-reaching distributional effect, one that works through the political system: it changes the trade-offs faced by the middle classes in their electoral choices in the direction of more redistribution. Before the minimum wage was introduced, taxes resulting in a reservation wage above $w_{fe}$ would generate unemployment. With the minimum wage, this is no longer the case so long as the reservation wage remains below $\bar{w}$. Since the middle class has below-average capital and income, it is now in its best interest to support higher taxes. That way it can benefit from the transfers from the rich without incurring any additional costs because of incentive effects: the incentive effects operate only at the margin and the current tax rate associated with $\hat{w} = w_{fe}$ has become infra-marginal by virtue of the minimum wage.

In other words, through collective action, the workers in this economy attain a labor-market regulation that also shifts the political balance in their favor. In an unregulated labor market, the middle classes are not a reliable partner of the putative coalition of the “poor” because they benefit also from an alliance with the rich against the proletariat. Labor-market regulation changes this political balance: once “cheap labor,” with its resulting high capital returns, is no longer an option, the middle classes become a firmer ally of the proletariat in the support of taxation. Collective action is, thus, what undergirds this type of interclass collaboration.
The public policies resulting from this type of alliance are different from the ones we would expect in the previous case. In this economy labor-market regulations will coexist with a high social safety net. The difference between “before-government” inequality and “after-government” inequality will be larger, suggesting more redistribution through taxes, but also there will be lower levels of labor commodification. From a macroeconomic point of view, this economy will seem to operate below par, with aggregate output below potential output.

Of course, this is class compromise in the same sense as shanghaied travel is tourism. The middle classes are constrained to reach this arrangement because of the collective action capabilities of the proletariat. Two factors determine how strained this “alliance” will be: the capital endowment of the middle classes and the organization of the proletariat. Large income disparities between the proletariat and the middle classes, coupled with high levels of labor union strength make for heightened tensions between the two groups. The middle classes will resent the proletariat’s use of its rights to collective action, and is likely to fight the regulation of labor markets every step of the way. This makes for some ambiguity in the middle classes’ political stance. Given their interest in labor market flexibility, they will be opposed to organized labor but, if and once some degree of regulation becomes a fait accompli, it is in their interest to turn around and support labor in its call for higher redistributive taxes.

I submit that this line of reasoning offers us a good starting point for analyzing some aspects of distributive policy making in contemporary economies. But some loose ends remain and to clarify them we need to express formally the main connections of the model. That way we will be able to turn the model’s basic intuition into a source of operational hypotheses. The next section, then, presents the model in its mathematical form. This exercise will allow us to obtain results of comparative statics that a purely intuitive discussion would not be able to reach. Toward the end of this chapter, I will present such results in words.
6.4 The Political Economy of Labor-market Regulation and Income Support

In this section I will formulate a model that captures the intuition of the previous section, showing its microfoundations. This will give us the analytical expressions from which we can derive the model’s comparative statics.

6.4.1 The Economy

Consider an economy with a continuum of agents. Their preferences are represented by a concave utility function $u(x)$. This economy uses two factors, capital and labor, henceforth labeled $K$ and $L$ respectively and produces one good $Y$ with the Cobb-Douglas production function $Y = K^\alpha L^{1-\alpha}$. To avoid complications coming from the analysis of consumption, let’s simply assume that good $Y$ is sold on the world market where final demand, $Y_d$, is a decreasing function of the price $p$ and parameter $\Gamma$, with constant and unitary price elasticity $Y_d = \Gamma/p$.

To analyze the incentive effects of public policy we need to know the behavior of the markets for production factors. Since the effects we are interested in are those pertaining to the regulation of the labor market, we cannot rely only on the standard computations of a full-employment equilibrium. But these computations, nevertheless, constitute a good analytical benchmark that simplifies several expressions.

By the standard method of solving a cost-minimization program and applying Shephard’s lemma (Appendix 6.A.1), we conclude that the following equations represent capital demand ($K_d$) and labor demand ($L_d$) as functions of their prices (that is, interest rate $r$ and wage rate $w$):

\[
K_d = \frac{Y\alpha}{r},
\]
\[
L_d = \frac{Y(1-\alpha)}{w}.
\]
It will be convenient to have a notation for the “potential per capita income,” that is, the per capita income that the economy could obtain if it used all its production factors. Let’s call it $\bar{y} = Y/L$. Likewise, the capital-labor ratio ($K/L$) of the economy will also play an important role in our analysis so I will denote it by $k$. If we consider labor supply and capital supply as fixed at $L$ and $K$ respectively, these demand functions would lead to the following equilibrium factor-prices:

\[
\begin{align*}
w &= \bar{y}(1-\alpha), \\
r &= \frac{\bar{y}\alpha}{k}.
\end{align*}
\]

Convenient as these expressions are, they are not useful for studying an economy that operates below its potential output, which is what happens if public policies affect the factors’ supply, especially, as in our case, labor. So, the next step is to lift the assumption of a fixed amount of production factors. For simplicity, I will retain the assumption that capital supply is perfectly inelastic so that $K_s = K$. Capital constitutes the wealth of the economic agents and they differ on this dimension so that, from now on, $k_i$ will label the capital endowment of individual $i$. In contrast, I will impose a more detailed structure on labor supply.

Individuals in this economy can obtain a nontaxable income $z$ if they engage in home production rather than working in the market. The polity levies taxes at a flat rate $\tau$ and uses the tax revenue to finance transfers to individuals in the form of a universal program of income support. Later I will make more assumptions about this program but, for the time being, it suffices to assume that each individual receives a transfer $t_i$ which may vary from one agent to the next. So, agents decide to work in the labor market, forgoing home production, if:

\[
\begin{align*}
(1-\tau)(w + rk_i) + t_i &\geq z + (1-\tau)rk_i + t_i, \\
w &\geq \frac{z}{1-\tau};
\end{align*}
\]
where we can define:
\[ \hat{w} \equiv \frac{z}{1 - \tau}. \]

This results in the labor-supply function:
\[
L_s(w) = \begin{cases} 
0 & \text{if } w < \hat{w}, \\
[0, L] & \text{if } w = \hat{w}, \\
L & \text{if } w > \hat{w}, 
\end{cases}
\]
so that the labor market is described by the supply-and-demand curves depicted in Figure 6.1.

Therefore, in this economy higher taxes reduce employment through their effect on labor supply. Denote the employment rate of the economy as \( E(\tau) = L_d(\tau)/L \). If we normalize the value of \( z \) to 1, since it will not play any further role in the analysis, we conclude that:
\[
E(\tau) = \min[\bar{y}(1 - \alpha)(1 - \tau), 1].
\]

Given these expressions, we conclude that the highest tax rate compatible with full employment is \( \tau_{fe} = (\bar{y}(1 - \alpha) - 1)/\bar{y}(1 - \alpha) \).

Reductions in employment will obviously reduce output and, perhaps less obviously, also reduce the interest rate. In fact, less labor available means lower marginal productivity of capital and, therefore, a lower equilibrium interest rate. To calculate this, let’s express the interest rate as a function of \( \tau \) and let \( y(\tau) \) be the per capita income, also a function of \( \tau \), which may differ from \( \bar{y} \):
\[
\begin{align*}
y(\tau) &= \frac{K^\alpha L_d^{1-\alpha}}{L} \\
&= \bar{y} E(\tau)^{1-\alpha}; \\
r(\tau) &= \frac{\partial K^\alpha L_d^{1-\alpha}}{\partial K} \\
&= \frac{\alpha \bar{y}}{\bar{k}} E(\tau)^{1-\alpha}.\end{align*}
\]
6.4.2 Electoral Preferences

Given this economic background, we can now determine the preferences of voters over distributive policies and, through these preferences, the outcome of the political process. Thus far I have not made explicit the role of taxes in this economy. As far as the previous computations are concerned, it does not matter if tax revenue is used productively or simply dumped in the sea. But to understand the trade-offs voters face in making their political choices, we need to be more explicit. To that end, I will assume that the transfers an individual receives are, all else being equal, an increasing function of the tax rate. For simplicity, and in keeping with much of the literature, we can suppose that tax revenue is distributed evenly among all the citizens. Together with this assumption, the balanced-budget constraint implies that each citizen receives a transfer equal to $\tau y(\tau)$.

In choosing their ideal tax rates, voters have to be mindful of the fact that, while higher taxes increase the size of their transfer, they also have an incentive effect that reduces aggregate output and the marginal productivity of capital and increases unemployment. So, for any given voter $i$, the optimal tax rate is the one that solves the following maximization problem:

$$
\tau^*(k_i) = \arg \max_\tau u((1-\tau)(w + r(\tau)k_i + \tau y(\tau))E(\tau))
+ u((1-\tau)r(\tau)k_i + \tau y(\tau))(1 - E(\tau)).
$$

There are several analyses of comparative statics that one could conduct with this model but in this chapter I will focus on two of these. I want to study the political effects of asset inequality and technological change. The following result will serve as the basis for such analysis:

**Lemma 2** For any voter $i$, the optimal tax rate $\tau^*(k_i)$ in an economy without a minimum wage has the following properties:

- $\frac{\partial \tau^*(k_i)}{\partial k_i} < 0$;
\[ \frac{\partial \tau^*(k_i)}{\partial k} > 0; \]
\[ \frac{\partial^2 \tau^*(k_i)}{\partial k^2} > 0. \]

**Proof:** See Appendix 6.A.2. This lemma describes the voters’ preferences in an unregulated labor market. But from the preceding discussion we have concluded that labor-market regulations have effects beyond the shop floor because they also change the role of tax policies and, hence, the way voters evaluate said policies. The following corollary formalizes this notion.

**Corollary 1** Denote by \( \tau^*_\text{reg}(k_i, w) \) the optimal tax rate for an agent with capital endowment \( k_i \) in an economy with a regulated labor market where the minimum wage is \( w \). Then, there exists a critical capital endowment \( k_g \) such that \( \tau^*_\text{reg}(k_i, w) \) is described by the function:

\[
\tau^*_\text{reg}(k_i, w) = \begin{cases} 
\tau^*(k_i) & \text{if } k_i < k_g, \\
\tau^*(k_g) & \text{if } k_g < k_i < \bar{k}, \\
0 & \text{if } \bar{k} < k_i.
\end{cases}
\]

Furthermore, the value \( k_g \) is a decreasing function of \( w \).

**Proof:** With a regulated labor market, the demand for labor is not always responsive to changes in the tax rate: lowering the tax rate cannot increase labor demand beyond \( L_d(w) \), the demand for labor at the minimum wage \( w \). In particular, for taxes below \( \frac{(1 - \alpha)z}{w} \), labor demand is \( L_d(w) \). If we denote by \( \tilde{L}_d \) this truncated labor demand, we obtain:

\[
\tilde{L}_d(\tau) = \begin{cases} 
L_d(w) & \text{if } \tau < \frac{(1 - \alpha)z}{w}, \\
L_d(\tau) & \text{if } \tau > \frac{(1 - \alpha)z}{w}.
\end{cases}
\]

So, in an economy with a regulated labor market, citizens choose their optimal tax rate according to the following maximization problem:

\[
\max_{\tau} u(z + (1 - \tau)r k_i + \tau y(\tau)) \frac{\tilde{L}_d(\tau)}{L} + u((1 - \tau)r k_i + \tau y(\tau)) \frac{L - \tilde{L}_d(\tau)}{L}.
\]
This maximization problem is identical to the one studied in Lemma 2 for tax rates \( \tau > (w - (1 - \alpha)z)/w \). Therefore, agents that prefer a tax rate in this interval in an unregulated economy will still do so in this new case. Lemma 2 establishes that those agents have a capital endowment lower than \( k_g \).

By the same token, the optimal tax for agents with a capital endowment larger than \( k_g \) is not larger than \( (w - (1 - \alpha)z)/w \). Those voters will face the following decision problem:

\[
\max u(z + (1 - \tau)r_k + \tau y(w)) \frac{\hat{L}_d(w)}{L} + u((1 - \tau)r_k + \tau y(w)) \frac{L - \hat{L}_d(w)}{L}
\]

subject to the constraint \( \tau < (w - (1 - \alpha)z)/w \). From the proof of the previous lemma, we know that if \( k_i < k \), income is increasing in \( \tau \). Since in this maximization problem, as long as \( \tau \) remains inside the constraint set, the employment level does not vary, the agent’s income and expected utility both increase with \( \tau \). Thus, the optimal tax rate is \( \tau^* = (w - (1 - \alpha)z)/w \).

Since \( (w - (1 - \alpha)z)/w \) is an increasing function of \( w \), and the optimal tax rate is a decreasing function of \( k_i \), then the capital endowment for which \( \tau = (w - (1 - \alpha)z)/w \) is optimal, \( k_g \), in the notation of the corollary, is a decreasing function of \( w \).

6.4.3 Organized Collective Action

The preceding analysis does not differ much from the standard approaches to distributive taxation in the tradition of (Meltzer and Richard, 1981). But the goal of this model is to make explicit the role of collective action in the political economy of redistribution.

To that end, I shall focus on the collective action problem that the proletariat faces in this economy. The preceding results formalize the intuition already explained: labor-market regulations have effects that go beyond the shop floor. In fact, the existence of a minimum wage forces the middle classes, that is, the median voter, to support taxes higher than those they would support in a purely unregulated labor market. Formally, this can be seen in the schedule of optimal taxes and its truncation at \( k_g \).
But such minimum wage will not result from electoral politics: a coalition of the middle class and the capitalists can defeat it electorally. Instead, in this model the proletariat’s only possibility of regulating the labor market is by exerting organized pressure, in other words, through collective action. At this level of abstraction there is little point in spelling out the details of this process, but it could happen in many ways: workers can stage a general strike so successful that the country is brought to its knees and the only way out is to agree to their salary demands, or they can form an effectively enforced cartel that prevents firms from hiring workers at wages lower than what it declares acceptable. Whatever the process that leads there, we can assume that, if successful, mobilized workers would impose a wage rate $w_M$, the optimal wage they would choose if they could act united as a monopoly. From the previous results, we know that the proletariat’s preferred taxes are the highest among the electorate so that, given the direct relationship between taxes and minimum wages, this means that left unchecked, the proletariat would impose a minimum wage that is higher than that preferred by any other agent in the polity.

This suggests the analytical procedure that I will follow in this section. The model’s economic structure determines the incentive effects of taxation, key factor of the electoral preferences that shape the political process. Together, these incentive effects and these electoral preferences will determine the potential benefits that the proletariat obtains from regulating the labor market, in this case, by forcing the introduction of a minimum wage.

In Part I we learned that the prospects of collective action depend crucially on the payoff schedule. If, in case of success, cooperators get rewarded above and beyond what defectors do, the collective action problem has multiple equilibria and it is inaccurate to say that every agent will attempt to free-ride on the others, even if collective action results in a public good from which no one can be excluded.

Labor mobilization can produce a public good in the form of higher wages. This is why unions have been a classical
topic of collective action theory since Olson (1965, Ch. 6). But, if successful, they are also in a position to reward their members for their contribution in addition to the public good. In keeping with the discussion of 2.6.3, these rewards are not the same as the Olsonian selective incentives: they are contingent on success and, therefore, they do not make cooperation strategically dominant.

Union membership may result in benefits of different kinds but, to keep the model parsimonious, I will focus on one benefit that already shows up in the formalization above: job protection. Consistent with the norm in many unionized industries, in this model union members are at a lower risk of being fired than the rest. For simplicity, I will assume that it is impossible to fire a unionized worker.²

In Part I I modeled collective action problems described by four different payoffs. The discussion thus far allows us to determine two of them. If the proletariat succeeds in forcing the introduction of monopoly wages, it will benefit from two sources: the minimum wage itself ($w_M$) and the increased tax rate that will result from the electoral process, as demonstrated above. Since the monopoly wage is optimal for the proletariat, by the logic of Corollary 1, so will be the tax rate.

In terms of our notation, the tax rate of this economy will be $\tau^*(0)$, that is, the tax rate deemed optimal by an agent with capital endowment $k_i = 0$. The payoff of successful collective action for participants ($w_1$) is the utility they obtain from earning the monopoly wage $w_M$. In turn, nonparticipants do not enjoy the same degree of job protection so their expected utility calculations must consider the likelihood of being unemployed.

Putting these elements together we can obtain the payoffs of the proletariat’s collective action problem, in keeping with the notation introduced in the previous chapters:

²Strictly speaking, the reward of job protection would be trivial if union membership were equal to the size of the employed labor force. This is too much of a rare occurrence to be a major concern. Even if it happens, all we need in this model is that workers perceive ex ante that belonging to a union will reduce their risk of being jobless.
\[ w_1 = u(w_M + \tau^*(0)y(w_M)), \quad (6.1) \]
\[ w_2 = u(w_M + \tau^*(0)y(w_M))\frac{L_d(w_M)}{L} + u(\tau^*(0)y(w_M))\frac{(L-L_d(w_M))}{L}. \quad (6.2) \]

For notational convenience, I will refer to \((L-L_d(w))/L\) as \(U(w)\) and to \(L_d(w)/L\) as \(1-U(w)\). This is mnemonically appropriate because the first expression denotes the unemployment rate of the economy \((U)\) at wage \(w\) and the second one the employment rate.

Like the general collective action models discussed above, here cooperators enjoy higher payoffs when collective action succeeds, but also are punished when it fails. In the notation of Part I, \(w_3 < w_4\). This describes adequately the collective action problem at hand. If the workers’ union fails to materialize, those who attempted it are likely to face steep costs. I will take that cost to be exogenous to the model, an outcome of established legislative and judicial practices in the polity. The model already gives us the elements to determine the payoff \(w_4\), that is, the payoff workers receive if they simply abstain from a failed attempt at collective action. If the proletariat’s collective action fails, the economy will be operating with the fully competitive wage so that nothing will stop the median voter from imposing his favorite tax rate. If we denote the median voter’s capital endowment by \(k_m\), the payoffs in case of failure become:

\[ w_3 = c, \quad (6.3) \]
\[ w_4 = u(w + \tau^*(k_m)y(\tau^*(k_m)))(1-U(\tau^*(k_m))) + u(\tau^*(k_m)y(\tau^*(k_m)))U(\tau^*(k_m)). \quad (6.4) \]

In these definitions, \(w\) is the going wage of the economy in an unregulated labor market. For generality, I allow here for \(w > w_c\) so that there may be unemployment in the economy. The level of redistribution \((\tau)\), and the option outside the market \((z)\), determine \(w\) and, in turn, result from the political process.
The coordination workers try to accomplish in this model has a probability of success directly proportional to the number of them that do cooperate. For simplicity, I will assume that the “production function” of this collective action problem is linear: \( F(\gamma) = \gamma \).

This threshold game has multiple equilibria: players may cooperate or may decide to free-ride. Facing this prospect, employers can voluntarily accept the imposition of a minimum wage legislation that pacifies labor relations by deterring workers from trying to impose monopoly wages. To that end, employers accept a minimum wage that makes workers indifferent between obtaining this legislation and embarking upon the arduous path of organized collective action. The minimum wage is, thus, determined by the threat of collective action. This approach fleshes out the standard tool of analysis of minimum wages in the economic literature: Nash bargaining between employers and employees, exemplified by Booth (1995). Formally, the expected utility workers obtain from the minimum wage is the same as the expected utility they obtain from the threshold game. To make this latter term precise, we need to know the relative probability of success and failure in this threshold game. So, the minimum wage \( w \) is the solution to the equation:

\[
\begin{align*}
\text{u}(w + \tau_m y(\tau_m))(1 - U(\tau_m)) + u(\tau_m y(\tau_m))U(\tau_m) = & \Pi(0)w_4 + (1 - \Pi(0))w_1, \\
& (6.5)
\end{align*}
\]

where \( \tau_m \) is the tax supported by the median voter if the minimum wage is introduced.

At this juncture the method of stability sets plays a critical role. We cannot know the clout wielded by labor in determining the minimum wage if we do not know how serious its collective action problem is and how likely it is to be solved, that is, if we do not know the probabilities \( \Pi(0) \) and \( \Pi(1) \). These parameters can be calculated by studying the stability sets of this problem and I doubt that they could be ascertained with any of the standard methods. The value \( \Pi(0) \) is the probability of the noncooperative equilibrium we calculated in Chap-
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This probability depends, as we already discussed, on the distribution of initial belief conditions. Here, for simplicity, I will adopt the Laplacian approach. I am not interested right now in comparative statics results involving changes in such conditions; assuming they are uniformly distributed will remove one extra complication. So, we can conclude that:

\[ \Pi(0) = W, \]  
(6.6)

\[ W = \frac{w_4 - w_3}{(w_4 - w_3) + (w_1 - w_2)}. \]  
(6.7)

These expressions allow us to prove the main comparative statics results of this collective action problem, which are summarized in the following lemma. In a nutshell, this result states that, all else being equal, increases in economic inequality and in the productivity of capital increase the benefits of the proletariat’s collective action and, so, increase the likelihood of its success and, with it, the resulting minimum wage.

**Lemma 3** The probability of success of collective action \( \Pi(1) \) and the minimum wage \( w \) are such that:

- \( \frac{\partial \Pi(1)}{\partial k_m} > 0; \)
- \( \frac{\partial \Pi(1)}{\partial k} < 0; \)
- \( \frac{\partial w}{\partial k_m} > 0; \)
- \( \frac{\partial w}{\partial k} < 0. \)

**Proof:** Since \( w_1 \) and \( w_2 \) are payoff functions evaluated at \( k_i = 0, \) and with a tax rate independent of \( k_m \) or \( k, \) the only effect of changes in \( k \) and \( k_m \) on these expressions is felt through \( w_4. \) The results in the previous section show that \( w_4 \) is decreasing in \( k_m \) and increasing in \( k. \) Since \( \Pi(1) \) and \( w \) are increasing in \( w_4, \) this establishes the results.

### 6.5 Interpreting the Results

The previous section formally presents the results of comparative statics of this politico-economic model. Given that they
are derived from the study of the model’s mathematical properties, it is necessary to discuss them conceptually as well.

The first result to notice refers to electoral preferences. In that regard, this model does not differ in essence from the canonical studies of redistributive policies: the richer voters prefer lower taxes. Consistent with the logic of that previous literature, we can conclude that increased inequality in the form of a larger gap between average income and median income will lead to heightened demands for redistribution.

This result holds in general for any economy that redistributes income through a flat tax. Beyond that, however, we can arrive at other results once we consider the role of production and the markets for production factors. In particular, an important conclusion of the preceding section is that the disparity in preferences over taxation across voters will increase with increases in the productivity of capital. This can be appreciated in the role of $k$, the economy’s capital-labor ratio, in the calculations above. In computing comparative statics over $k$ I looked only at, so to speak, “income-compensated” increases in the capital stock, that is, increases in the capital stock resulting from changes in the technology needed to produce one unit of output. This isolates the effect of increases in $k$ on income distribution from the effect of, say, a larger capital stock over output. For any given level of output, a lower capital-labor ratio corresponds to a higher productivity of capital.

Thus, the lemmata above show that as the marginal productivity of capital increases, so does the gap between the preferred tax rates among the populace. This is hardly surprising. Increases in the tax rate decrease the supply of labor and thus reduce the marginal productivity of capital, something that does not affect the proletariat as it does the middle classes. The relative size of this effect is larger the higher the productivity of capital. Thus, were the middle classes’ capital stock to become more productive, the added effect of taxation over income will become larger: the disparity between the tax rates deemed optimal by each class will grow.
Furthermore, we also know from the preceding analysis that labor-market regulations have an effect on the voters’ electoral preferences. In particular, when a minimum wage is in place, this creates a level of unemployment higher than what some voters, with capital endowment above a critical level, would have preferred. But, confronted with the new levels of unemployment, they find it optimal to support higher degrees of taxation: at their otherwise optimal tax rate, marginal increases in taxation do not lead to higher unemployment. Those voters are now, so to speak, pressed into service of a redistributive coalition they would not have joined in an unregulated labor market.

These interactions between the economic and the electoral processes form the backdrop against which collective action occurs. Together with the guarantees, or lack thereof, for union activity, they constitute the costs and benefits that the proletariat will face in its attempts to transform the structure of the labor market through collective action.

This is where the current model departs both from the standard models of economic redistribution and from the conventional approaches to collective action in rational-choice theory. Unlike models of electoral redistribution that focus solely on the preferences that the citizenry expresses through the ballot box, this model makes explicit how those preferences are in part the result of deeper conflicts that play themselves out in the workplace. Unlike the extant rationalist theories, the approach I present connects the process of collective action to its underlying economic structure.

The preceding results on electoral preferences allow us to formulate some explicit conclusions about the role of organized union activity in this economy. The lemmata of the previous section prove that, all else being equal, the larger the economic gap between the proletariat and the middle classes, or the higher the productivity of capital, the higher the minimum wage. Here the “all else being equal” clause is fundamental; it results in an important qualification of the result. But, before qualifying it, we need to understand its meaning.

In a way, this result is intuitive. Consider two economies $A$ and $B$ that differ only in their degrees of economic ineq-
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ity or in their capital productivity: $A$ is more unequal and more productive than $B$. Given what we know about electoral preferences, if their labor markets are entirely unregulated, $A$ will have lower tax rates, that is, less redistribution, than $B$. By the same token, were the proletariat to succeed in imposing monopoly wages, say through a general strike or an enforced labor cartel, it would obtain a larger increase in taxation and redistribution in economy $A$ than what it could in $B$. In other words, economy $A$ displays a higher degree of politico-economic tension between the proletariat and the middle classes. An analysis equipped with a canonical Olsonian model of collective action would not grant any importance to this fact. To it, in both economies the proletariat would be irremediably hampered by the public goods problem so that we should not expect any differences between them in this regard. But, as I have repeatedly stated, such Olsonian analysis is too restrictive and fails to do justice to the existence of multiple equilibria in coordination problems. Instead, with the method of stability sets we can use this knowledge of the economic structure of $A$ and $B$ to understand their political outcomes.

Since the potential benefits of collective action are larger in $A$ than in $B$, the method of stability sets allows us to conclude, in a way fully consistent with the principles of rational-choice theory, that, all else being equal, $A$’s proletariat is more likely to succeed in its attempt at imposing monopoly wages than its counterpart in $B$. Therefore, if the owners of capital want to avoid such monopoly wages, they must agree to a higher minimum wage in $A$ than in $B$, a minimum wage that dissuades the proletariat from engaging in full-scale, risky, but potentially powerful coordination.

Not all else is equal, though. Thus far I have assumed that $A$ and $B$ display equal degrees of tolerance with respect to unionizing, in other words, that both polities impose the same costs on the proletariat’s collective action. But these costs are not a given and there is no reason to believe that they remain the same across time and place. Instead, it stands to reason that, faced with an economic structure so prone to proletarian
belligerence, the middle classes and the capitalists will try to clamp down on it by increasing the costs of collective action. We would expect $A$ to have harsher anti-strike legislation and perhaps even more instances of labor repression than $B$. In the formal language of the model, the middle classes and the capitalists of $A$ will try to lower the payoff $w_3$ as much as possible to offset the incentives to collective action that the proletariat faces given the underlying tensions in the economic structure.

### 6.6 Class Struggle and the Political Economy of Redistribution: Sweden and Germany in the Interwar Years

The model presented thus far is not ready for the type of heavy-duty empirical testing that we often expect from mathematical models in the social sciences. Its assumptions about the economic structure are exceedingly simple: it focuses only on the labor market at the expense of other factors of production, assuming a fixed supply of capital and erasing the distinction between physical capital, human capital and land. Perhaps more limiting, it also presents an oversimplified view of the political process. In particular, it treats as exogenous the determination of $w_3$, the costs of unionization. As mentioned above, these costs are the outcome of strategic choices by the classes with power to modify them and, as such, also depend on the underlying economic structure. Absent such an analysis, the model presented thus far should be considered an exercise in “partial equilibrium,” to use the term reserved in economics for models that leave out of the analysis some crucial adjustment mechanisms.

But while partial equilibrium models do not make for outstanding scores in statistical testing, neither are they useless: they can suggest lines of inquiry and clarify some mechanisms, suggestions and clarifications that may ultimately inform a more complete theory. I believe that the model developed in
this chapter can pass this milder test, as I will illustrate with some considerations about the collapse of some liberal economic orders in interwar Europe, notably, in Germany and Sweden.

The rise of fascism in Europe and its ultimate collapse in the bloodiest war in recorded history is one of the great epochal crises of all times and, among that small league, is the one chronologically closest to our own time, the one whose consequences can be felt most vividly. As such, it towers as a challenge for scholars in comparative politics. Given the enormity of the events, any attempt at explaining them is likely to fall short but, at the same time, no paradigm of comparative politics can ignore them without risking irrelevance. Not surprisingly, this period has generated an enormous literature, some of which can be counted, as was to be expected from such an outpouring of intellectual power, among the very best work this subdiscipline has produced.

Here, for the sake of precision and clarity, I will focus at some length on two particular works on the subject that, apart from being splendid scientific pieces in their own right, have theoretical sensibilities similar to the ones that animate this book: the now classic book by the late Greg Luebbert, *Liberalism, Fascism or Social Democracy*, and the politico-economic model based on it that John Roemer develops in his *Political Competition*.

At this point it should already be clear that I intend to launch a research program that combines the tools of rational-choice theory with the insights of structural analysis in the social sciences. But many rational-choice theorists believe that their approach refutes the previous structuralist paradigms and, likewise, many believers in the power of structural explanations regard as anathema the premises of rational-choice theory. Against this backdrop, it is a rare occasion when a work applies the tools of rational-choice theory to examine a structural argument proposed by a political sociologist, an occasion rendered even more exceptional by the fact that the subject matter of this dialogue is a most intriguing question in comparative politics. Unlikely though this was, it is exactly what happened.
Although Luebbert’s book barely needs presentation or any added praise, let’s summarize its basic argument and Roe-mer’s take on it. For Luebbert, the history of Europe during the half century that preceded World War II is, by and large, the history of different responses to the political mobilization of the newly enfranchised masses. Whereas the major European countries had a similar initial response, over time their paths differed dramatically and even lethally. As the nineteenth century drew to a close, most of these political regimes can be described as Lib-Lab alliances, that is, as regimes where the nascent labor movement was still looking for its political home inside the historic liberal parties that emerged after the revolutionary waves originating in 1789. Clearly it was an uneasy alliance, especially given that during the nineteenth century there had been occasions of overt and violent conflict between liberal governments and the workers’ movements. But, in principle, there were plenty of opportunities for mutual benefit: the liberal party gained access to a fast-growing constituency and labor gained from the political expertise of the liberal party in an era when its own electoral skills were not yet honed.

Luebbert’s book is largely an attempt at reconstructing the dissimilar fates of similar Lib-Lab alliances across Europe. On the face of it, the results could not be more disparate. By 1938, the first year in which one of the regimes in Luebert’s sample (Czechoslovakia) was cut short, not by its internal dynamics but by the meddling of foreign powers, only Britain, France, Switzerland and Czechoslovakia could still be described as liberal regimes. The remaining regimes had been transformed beyond recognition either by becoming fascist (Italy, Germany, Spain) or social democratic (such as the Scandinavian countries).

Luebbert’s central claim is that in those countries where the Lib-Lab alliance collapsed, the key to the final outcome was in the hands of the rural middle class: in countries where the peasantry supported the urban middle classes, the outcome was fascism and in those where it threw its support behind labor, the outcome was social democracy. This begs
two questions: 1. What accounts for the weaknesses of those Lib-Lab coalitions that collapsed? 2. What accounts for the behavior of the peasantry in the cases where Lib-Lab was replaced?

Luebbert responds to both questions by resorting to the notion of pre-existing political cleavages. With respect to the success or failure of liberalism, Luebbert summarizes his position by claiming that:

Where liberals failed to establish their prewar hegemony, they failed because they could not straddle pre-industrial cleavages within the middle classes. Having failed to establish their hegemony, liberal parties found the mobilization of a socialist working class enormously threatening — so threatening, in fact, that they consistently refused to ally themselves with socialist movements. Normally left without allies, and always without useful allies, socialist parties and trade unions concentrated on the comprehensive and coherent organization of the working classes. (Luebbert, 1991, pg. 9)

In another passage he clarifies further:

[L]iberal movements in [...] societies [where liberalism failed] were crippled by divisions within the middle classes that originated in the pre-industrial epoch. Conflicts of national territory, religion, the center versus the periphery, the city versus the country, and the national communities remained decisive at the time of mass mobilization. (Luebbert, 1991, pg. 63)

His basic thesis on the divergent fates of the failed liberal regimes is that:

Whenever socialists sought to organize the agrarian proletariat in politics and in the labor market, the family peasantry was pushed into the arms of
fascists. Whether or not socialists sought to organize agrarian workers was in turn determined by whether those workers were politically available or had been previously organized by another movement. [...] When the family peasantry sided with urban workers, the outcome was a social democratic regime. When it sided with the urban middle classes, the outcome was fascism. (Luebbert, 1991, pg. 11)

Drawing on his own work on electoral equilibria in multidimensional policy spaces, Roemer has developed a politico-economic model to test Luebbert’s hypothesis about the emergence of fascism versus the emergence of social democracy. There is no point in reproducing here Roemer’s analysis. Suffice it to say that in it he formulates an elegant model of electoral redistribution where the Left and Right parties compete for votes by offering different vectors of income allocations among the classes involved. This implies computing the Party Unanimity Nash Equilibria (PUNE) of a four-class model (workers, middle classes, landed peasantry and agricultural proletariat) and comparing the behavior of those equilibria with that of the PUNE one would obtain in a three-class model (fixing the income allocation between the landed peasantry and the agricultural proletariat). Upon computing these two models with demographic parameters from Sweden and Germany in the 1930s Roemer is able to analyze counterfactual models of each country (that is, a “Sweden” with class struggle in the countryside and a “Germany” without it) to see whether Luebbert’s proposed mechanism does in fact explain the difference in outcomes. In specifying the equations that generate an electoral equilibrium, Roemer has at his disposal two extra degrees of freedom coming from unobservable parameters, viz. the relative weight that both Left and Right give to the interests of their rural constituencies. He makes use of these degrees of freedom to simulate various alternatives in what amounts to a test of the robustness of the mechanism proposed by Luebbert.
Roemer’s results lend credence, albeit not unqualified credence, to Luebbert’s theory. In fact, for a large family of parameters, class struggle in the countryside is detrimental for the Left. For some parameter values, though, Luebbert’s hypothesis is not borne out by the equilibrium results.

It may seem at first glance that Roemer’s model simply translates Luebbert’s verbal argument into mathematical symbols. But Roemer is too sharp a methodologist not to realize this. Thus, he supplements his work with an admirable “Methodological Coda,” two pages that constitute as measured and cogent a statement as one can find about the relative merits of analytical and historical methods and the dialogue between them. There, Roemer writes:

> What does the formal analysis with PUNE add to Luebbert’s abstraction? I think, principally, it shows that it was not a coincidence that the Left supported the agricultural workers, thus alienating the peasantry, when agricultural class struggle was active. This was, if you will, a consequence of the factional intraparty struggle and, in particular, the role of militants in the Left. The opportunists in the left would, presumably, have been happy not to have supported land reform, but the militants would not settle for that. The equilibrium analysis shows that, given parties with factions guided by rather simple and clear motivations, the left will win with smaller probability in a country where agricultural class struggle is active than where it is passive, ceteris paribus. In this sense, the analysis instructs us not to view left support for land reform as a tactical error: it was part and parcel of the historical development of social democratic parties, which emerged in every case with militant factions — factions in the absence of which these parties might well have lost their socialist character. (Roemer, 2001a, pg. 243)
Thus, there are nuanced differences between Luebbert’s account and Roemer’s. Roemer assigns more explanatory weight to conflicts over land tenure, whereas Luebbert emphasizes the pre-industrial political cleavages as the main impediment to the penetration of the socialists in the countryside. By the same token, I am not sure that Luebbert’s position can be characterized as one that attributes to a tactical error the Left’s defeat in fascist countries, but that may be besides the point. What matters is that, for Roemer, important though socioeconomic structures may be, the organizational imperatives faced by any political party worthy of its name also play a role in shaping the outcomes of the political process.

These distinctions notwithstanding, the result of combining these two approaches is a theory of the origins of fascism that traces the effects of the underlying socioeconomic structure on the political process of a Europe that had just recently completed the transition to mass politics. But, while assigning conceptual preeminence to structural factors, this theory does not deny the role of individual, rational agency and instead draws heavily on it to analyze the mechanisms of electoral competition. In that sense, it is a good example of the type of political economy that I think is possible once we combine rational-choice theory with structural analysis. The model I have developed in this chapter is too crude to become a serious competitor of this theory but can illuminate aspects that it overlooks.

The analyses of Luebbert and Roemer raise some questions that cannot be answered given their analytical framework but that, instead, can be addressed by a more developed version of the model I have just discussed. A key element in Luebbert’s theory is the persistence of pre-industrial political cleavages, especially in the countryside. It is not clear why such political conflicts would trump the newer ones. More precisely, it remains to be explained why age-old tensions over religion or conflicts of center versus periphery held a grip over the citizenry that hindered effective coalition building around class issues that were already becoming pressing. In fact, it may seem as if Luebbert’s hypothesis explains too much. He offers
a compelling portrait of the difficulties liberals in Germany and Sweden faced in trying to unify middle class segments of the population that had been politically seasoned in previous, pre-industrial, conflicts. But if such pre-industrial conflicts were so deeply entrenched, it is not clear why other parties, viz. the fascists, succeeded in overcoming them. After all, fascism succeeded in doing exactly what Luebbert argues the liberals could not: bringing together the middle classes despite their pre-existing divisions. In the processes that culminated either in fascism or social democracy pre-industrial political cleavages are far from a static presence: while they proved fatal for the liberal forces, the new movements, especially the fascists, were able to cut through them in the span of a few years. The political geography of such pre-industrial cleavages also remains somehow opaque: it is one of Luebbert’s central claims that in those societies that would ultimately become fascist, the socialists could not successfully establish a foothold in the countryside, divided as it was because of pre-existing cleavages. But this attributes to the countryside a specificity that needs to be explained. After all, these same socialist parties had overcome formidable obstacles in the cities, going from virtual nonexistence to sizeable political actors, sometimes during the course of just a few years and confronting urban middle classes every bit as hostile and fixated in pre-industrial conflicts as its rural counterparts.

Roemer’s approach makes explicit the organizational dilemmas faced by the European Left. But, although it is hard to disagree with his view that a nascent socialist party without a sizeable militant faction is something of an oxymoron, and that, hence, socialist parties in the interwar period were prone to get saddled with electorally suboptimal platforms, this explanation of the fate suffered by some socialist parties needs to be supplemented. Arguably, the Nazi party was not going out of its way to maximize its vote share but was instead waiting for the electorate to come over to its side, as it in fact did after the Depression. This suggests a limitation to Roemer’s analysis, one that he himself has explicitly acknowledged: even if the German Left was beholden to militants that
got in the way of its vote maximization efforts, it is remarkable that the ultimate victory went to that group of pragmatic and level-headed reformers known as the Nazi party.\(^3\) The role of militant factions that would hamper the parties in their efforts at maximizing votes is rather nuanced: while arguably fatal for the German Left, it did not stop the Nazi party from attaining victory.

It is possible to complement the approach of Luebbert and Roemer by expanding on their blind spots. For good reasons, both authors place special emphasis on the electoral angle of the process under study. But the struggles that led to the emergence of fascism and social democracy in the countries discussed were not only fought through the ballot box. In a democracy, no matter how imperfect, elections are the mechanism through which political parties come into office but they are not the only source of political power, sometimes not even the most important one. Deeply entrenched socioeconomic realities often confer the real power to actors others than the party in government. The model analyzed in the preceding sections allows us to bring out this point in ways that may illuminate some aspects of the collapse of liberalism in Germany and Sweden.

During the early decades of the twentieth century, these countries went through intense political turmoil over the regulation, or lack thereof, of the labor market. The allocation of economic rights in the workplace has, ultimately, electoral repercussions because, indirectly, it also allocates across economic agents the costs of the incentive effects resulting from any redistributive policy, thus affecting these agents’ electoral preferences. It is not gratuitous, then, that in a crucial formative stage of their politico-economic process, the German and Swedish democracies went through decisive battles,

\(^3\)Roemer recognizes as much in his final assessment of the model: “I must remark that the Right has been modeled, here, as a conservative party which represents the propertied classes. There is nothing in the model that captures the fascist nature of the victorious parties in Germany, Italy, and Spain. This analysis, therefore, has nothing to say about why fascism, rather than traditional conservatism, became the scourge of Europe in the interwar period.” (Roemer, 2001a, pg. 241)
extra-electoral but nonetheless political, over how to define the rights and duties of employers and employees.

Germany is a case in point. The transition of the Nazi party from a group of heavy-drinking, unemployed World War I veterans to a serious contender in national politics is only partially the result of electoral, vote-maximizing decisions. As late as 1928, only five years before the takeover, the Nazi party had a disastrous showing in the elections. But since its creation it had already established its presence in the German political scene as the anti-Spartacist shock troops.

Both Luebbert and Roemer are right in pointing out the instructive contrast between the outcomes in Sweden and Germany. But focusing on the electoral results understates the magnitude of the contrast. When Hitler was sworn in as Chancellor, the Swedish Social Democrats had already been in power for a few months. By the year 1936, while the Swedish trade unions and employer organizations began the negotiations that would culminate in Saltsjöbaden, the Nazi party had already killed, imprisoned or exiled most of the Left opposition and the first concentration camps for political prisoners were already active. The Nazi victory in Germany was more than just a swing in the proverbial political pendulum; it was the ascent to power of one of the most ruthless and uncompromising political groupings ever known. When it comes to visions of class conflict or compromise, whatever the attitudes of the Swedish Social Democrats toward the employers, they were no match for the brutal anti-labor stance of the German Nazis.

If outcomes are important, trajectories also matter. Luebbert’s attention to detail in his analyses of the different European political processes should give pause to anyone who tries to supplement his views, but it is worth noticing that, aside from the electoral shifts that ultimately destroyed the Weimar Republic, the interwar years were for Germany the period of a heated struggle in the workplace. Even at times when the Nazi party was still a nonentity, the German Left’s labor movement was under attack by the “yellow unions,” unions of clear right-wing credentials, such as those associated with the Stahlhelm,
which had the explicit goal of undermining the Left’s potential for collective action at the factory level (Fischer, 1989).

It would be a mistake to project back into the Swedish politico-economic process of the 1920s the social democratic hues that marked it in the postwar period. If anything, the Swedish labor movement in that era had to stomach more than one bitter defeat at the hands of the remarkably cohesive employers’ organization, the SAF (Swenson, 2002). But there are differences in nature and in degree between the German situation and the Swedish one. The Swedish labor movement, already bludgeoned into accepting basic principles of management autonomy after its first setbacks, was perceived as a legitimate interlocutor of the employers and an acceptable partner in steering the labor markets through troublesome economic waters. The fortunes of the German labor movement follow something of an inverse trajectory: a key and formidable actor even in failure as in the aborted uprising of 1918, it finds itself fighting a rearguard action in the defense of Weimar against the Right’s reaction, first successfully, as when it contributed to the collapse of Kapp’s putsch, then unsuccessfully in the agony of Weimar, until the ignominious end with the dissolution of unions and the formation of the Nazi Labor Front, during the early stages of the Third Reich.

Overall, the conflict over labor-market regulation polarized the German society of the 1920s and 1930s in ways unparalleled in the Sweden of the time. This suggests an explanation for the difficulties we encountered in the study of Luebbert’s and Roemer’s studies. Conceivably, the urban middle classes in Germany were not entirely frozen in pre-industrial cleavages but, instead, once overt class struggle broke out in the workplace, reaching unprecedented heights in the early years of the Weimar Republic, they started converging around parties that could credibly claim to pacify the conflict by force, shedding the disagreements over older issues that had plagued the liberals’ attempts to win them over. Once this process was under way, that is, once the Spartacist Left became something of an existential threat for the middle classes, a threat exacerbated by the Depression, right-wing militancy stopped being
a liability. Instead, the more extremist its antiscialist stance, the more ruthless its rhetoric against the Left, the more a party (viz. the Nazi party) could claim to be in possession of a solution fully acceptable for the middle classes, both urban and rural.

But this begs the question of why there were such high levels of polarization in Germany compared to Sweden. The model developed in this chapter can offer some insights in this regard. We have seen that in a market economy, structural conditions pertaining to its production technology and asset distribution determine the severity of the workers’ collective action problem as they try to force the regulation of labor. Since such regulation imposes a cost on the middle classes, in an economy where the workers can easily overcome the barriers to collective action, the middle classes will want to counteract this effect by supporting high costs for unionization. In the language of the model, the higher the magnitude of collective action’s potential benefits relative to its costs, that is, the higher $w_1$ and $w_2$ relative to $w_3$ and $w_4$, the more the middle classes will try to increase the costs over which they have control in the political process by reducing $w_3$. Harsh anti-union legislation or, if that fails, overt, even physical, confrontation with labor are some of the tools we can expect to be used in this process.

The comparative statics results demonstrated above allow us to focus on two properties of an economic structure that raise the benefits of proletarian collective action and that, hence, make for especially tense labor relations: high productivity of capital and high disparity of endowments between the proletariat and the middle classes. High productivity of capital means that the workers can derive higher benefits from regulating the labor market. In a way, the minimum wages are a transfer from capital rents to labor and so, the higher the productivity of capital, the more of these rents can be transferred. High differences between the factor endowment of the middle classes and that of the proletariat mean that there is a larger gap between the taxes favored by each in an unregulated labor market. Thus, there is a larger incentive for the
proletariat to force the implementation of minimum wages to counter the anti-tax bias of the middle classes, forcing them to go along with larger redistribution.

From this point of view, Sweden and Germany in the years before World War II corresponded to what the model would lead us to expect. The parameters of endowment distribution that Roemer used to calibrate his model provide some hints. Using the data from Przeworski, Underhill and Wallerstein (1978), he concludes that around 1930: “the propertied classes constitute 51% of the adult population in Germany and 45% in Sweden. Germany is more urbanized than Sweden: 77% of the population live in cities, versus 66% in Sweden. In sum, Sweden is less urbanized but more proletarianized than Germany” (Roemer, 2001a, pg. 218). For the rural sector, other data confirm Roemer’s assessment. Moller (1990) concludes that from an early stage the Swedish land was concentrated in large agro-industrial holdings, with little room for a middle-class landed peasantry. Instead, Niehaus (1933) shows that in Germany, aside from the notorious Junker, by the 1920s a sizeable portion of land was in middle-sized holdings. Judging from these pieces of evidence we can conclude that the German proletariat found itself in a predicament foreign to its Swedish counterpart: in pushing for larger redistribution it was pitted against propertied middle classes that would benefit from a deregulated labor market and would, therefore, be willing to ally with large capitalist interests over that issue. It is a widely recognized fact that the key constituency of the Nazi party in its final push for power was made up of shopkeepers, farmers and middle-class professionals, all of whom had been rendered economically insecure by the Depression (Childers, 1976).

Factor productivity in both countries also resonates with the theoretical expectations from the model. Figure 6.3 shows data on the productivity of capital, labor and land in Sweden and Germany between 1875 and 1914. The single most salient feature of this graph is the gap in capital productivity ($F_K$) between Germany and Sweden. Whereas labor was slightly more productive in Germany than in Sweden (as shown by
their respective $F_L$ values), only to a tiny extent, and there is hardly any discernible difference in the productivity of land ($F_T$) between both countries, it is unmistakable that Germany’s capital stock was much more productive than that of Sweden.

Figure 6.3: Factor Productivities in Germany and Sweden (1875-1914). Source: Author’s Computations from O’Rourke, Taylor and Williamson (1996).

In light of these data, the political economy of both countries makes sense. Sweden’s middle-class section of the population was small, with modest levels of productivity, and, therefore, would not have been much of a formidable opponent for labor in its struggle with capital. To be sure, capitalists themselves proved to be determined, ruthless and cohesive in their confrontation with labor, perhaps as much as their German equivalents. But the political lines of battle were, arguably, more straightforward, something that, ultimately, helped labor shape the terms of the conflict. Instead, the German labor movement had to be constantly mindful of the behavior of the sizeable and highly productive middle classes, who could be
counted on to turn against it on key issues such as the regulation of the labor market.

It is worth recalling that the model of collective action developed here has an additional degree of freedom: the level of mutual expectations among the participants. I have made no effort to quantify this or even to conduct a comparative static analysis of it. But, clearly, higher levels of labor’s mobilization will lead to higher likelihood of success in its collective action endeavors. In this regard, we should not forget that, already at the end of nineteenth century, the German labor movement was among the world’s most active and organized, its political branch, the SPD, being the envy of left-wing sympathizers the world over. Likewise, after World War I the German Communist party became the largest Communist party outside of the newly-founded Soviet Union. This was not accomplished through electoral calculations. In fact, the KPD grew while rejecting any half-measures, or any collaboration with bourgeois parties. Its impetus came more from a tradition of labor militancy than from its scant skill in the halls of power. With a working class with levels of militancy hardly rivaled anywhere, and a sizeable middle-class segment in control of a highly productive endowment, Weimar Germany seems, from the point of view of this chapter’s model, a political perfect storm.

Interestingly, this model allows us to go beyond World War II in ways that the models of Luebbert and Roemer do not. The developments post-1945 offer an interesting challenge to any theory of fascism. From the ashes of the Third Reich emerged a welfare state with few equals in its comprehensiveness and its guarantees for labor. Ironically, much of this occurred under governments of the Right. After the war, the SPD, even in opposition, was able to push for measures that were unthinkable during its short spell in government during the Weimar period. This chapter’s model suggests an explanation. With the destruction of the Nazi regime, gone were the days when the German labor movement could be confronted with the heavy-handed tactics of the 1920s. For a host of reasons, negotiating with labor on an equal footing became the only politically feasible option. In the language of the model,
the mechanism of increasing $w_3$, even with extra-legal mechanisms, in hopes of defanging labor was no longer possible. In this new type of environment, with a regulated labor market, the middle classes became a reliable partner of labor in its demands for increased redistribution. Only then, with the issue of the incentive effects of taxation adjudicated in favor of the working class, can the voters with below-median income be properly called a coalition.

6.7 Concluding Remarks

Prominent economist Jean Drèze once said that models in economics serve the same purpose and run the same risks as models in fashion: though a good way to put ideas on display, the author should not get carried away with them, nor should the customer forget that reality is messier. This is all the more true when the subject matter is as elusive as class struggle and income redistribution in a market economy. We might be well advised, then, to step back and take a critical look at the model presented here, to see what its limitations are and what we can, nevertheless, learn from it.

The model in this chapter cannot legitimately be considered a theory of why Germany became fascist and Sweden social democratic in the early 1930s. To begin with, no serious historical account of this process can omit the humiliating conditions of Versailles and the dislocations they produced in Germany. There are so many specificities in each of these countries that perhaps no single theory will explain their trajectories. By the same token, just like Roemer in his empirical analysis, I have focused only on Germany and Sweden. But Italy also became fascist, in fact, much earlier than Germany, and so did Spain, although not without a civil war of gigantic proportions. If we wanted to attribute real explanatory power to this model, we would have to establish whether these two countries faced the same tensions in their labor relations as Germany did and, in case they did, whether such tensions responded to the underlying economic structure in the ways the model claims.
Since the model just developed does not come close to a testable theory of the political economy of class struggle, it is appropriate that we ask what is, then, its payoff. I wish to claim that there are several useful conclusions we can draw from it, both substantive and methodological.

The classical paper of Meltzer and Richard (1981) inaugurated a tradition in formal political economy of studying how inequalities in the asset distribution of an economy map into distributive conflicts that, presumably, can be arbitrated through electoral mechanisms. In a one-dimensional policy space, the tax rate chosen by the median voter reflects the degree of redistribution possible for any given level of inequality. But this simplified template cannot deal with two facts of modern capitalist democracies: (a) the fact that much of the redistribution in contemporary societies is, so to speak, “off the books” since it occurs implicitly through the policies that regulate the markets for factors of production, especially labor and (b) the fact that many of those policies are not themselves the outcome of an electoral process, but instead reflect the capability of different agents in the economy of engaging in collective action outside of the ballot box.

The model developed in this chapter introduces these two additional complications to the original framework, arriving at three general results. The first is simply an extension of the classical Meltzer-Richard result to the new case: increases in the gap between the “poor” (that is, voters with income below the median) and the “rich” increase the demand for redistribution. The second result, instead, pertains only to this expanded model: all else being equal, especially the legal and extra-legal costs of labor’s collective action and its degree of mobilization, the electoral majority will be in favor of higher levels of redistribution the more the labor market is regulated. Finally, higher levels of capital productivity will increase the degree of polarization of the preferences of voters for redistribution.

Having established these results, I used Germany and Sweden in the interwar period as an illustration of how they work and how they can be put to use in the study of concrete
Concluding Remarks

problems. The results are satisfactory in that both politico-economic environments followed trajectories similar to those described by the model. Although it would be a mistake to consider this a conclusive proof, it nevertheless constitutes a favorable exhibit. When compared to Sweden, the German economy of the time displays features that, according to the model presented above, should make it prone to be destabilized by the efforts at collective action of different economic and political agents. In this, the model tracks historical events: according to most accounts of the demise of the Weimar Republic, those were years marked by heightened tensions that pitted the left-wing workers' movement against fascist groups in battles that were anything but electoral. Collective action, rather than vote maximization was the tool of choice of the relevant forces; if the Weimar Republic was cremated in the ballot box, it is because it had already been bled to death in the streets.

In the introduction to Part II I claimed that a rigorous study of collective action, informed by the tools developed above, could help us understand how the socioeconomic structure of a democracy places constraints over the degree of equality it could possibly attain. The model in this chapter displays one such mechanism. Although the incentive effects of taxation can, as Meltzer-Richard claim, represent a brake on the amount of redistribution a society may want to pursue, the magnitude of that effect depends on the way such incentive effects are spread out across the economic agents. This, in turn, depends on deeper institutional constraints, such as the structure of the labor market, constraints that are defined, to a large extent, through extra-electoral mechanisms that involve the agents' ability to coordinate through collective action.

From a purely methodological point of view, this model exemplifies the approach to the study of collective action I have defended in the first part of this book. Undeniably, the ultimate fate of the collective action efforts of German and Swedish workers depended on many organizational and individual choices that determined whether they could coordinate their expectations. These individual choices can be and often
have been described with the tools of the game-theoretic analysis of collective action, tools such as focal points and tipping games. In fact, it is not entirely inaccurate that the study of those choices has become the trademark of rational-choice approaches to the matter. Instead, such mechanisms do not play a substantial role in the preceding analysis.

There are several reasons for such departure from standard practice. There is no doubt that belief coordination is fundamental for collective action; I do not reject the contributions that rational-choice theory has already made in this area. But I believe that an exclusive focus on expectations, without looking at the impact of the structure in which collective action occurs, might create an unhealthy lack of balance in our analysis.

The dangers of this one-sidedness become apparent if we try to understand the politico-economic mechanisms discussed above with the existing tools. Much of the theorizing on this matter has attempted to answer the question, “Why does collective action occur?” But, for the purpose of the problem at hand, such question would not take us far enough. When it comes to the study of organized collective action, for the purposes of this model the question should not be, “Why workers strike?” but, “Given that workers may solve their collective action problem and strike, what are the broader consequences for electoral redistribution of the resulting conflict over labor market regulations?” In other words, in this model collective action is not the goal of the analysis but, instead, is just another link, among others, connecting the economic structure (e.g., asset distribution, technology and productivity) with political outcomes (e.g., distributive taxation and minimum wages).

I believe this is the way it should be. Few phenomena in the social sciences are as important as collective action. But when we turn it into the ultimate goal of our studies we fail to do justice to its centrality. Collective action has effects. It is the task of a systematic theory to understand those effects. In that sense, knowing that collective action is possible should be the beginning of our inquiry, not its end.
6.A Proofs of Main Results

6.A.1 Factor Demand

To compute the factor demand functions, we first solve the cost-minimization problem of a typical firm:

$$\min_{K, L} wL + rK \text{ s.t. } K^\alpha L^{1-\alpha} = \bar{Y}$$

or, written as a Lagrangean:

$$\min_{K, L, \lambda} wL + rK + \lambda(\bar{Y} - K^\alpha L^{1-\alpha})$$

which gives the following first-order conditions:

$$w - \lambda(1 - \alpha) \left( \frac{K}{L} \right)^\alpha = 0;$$
$$r - \lambda \alpha \left( \frac{L}{K} \right)^{1-\alpha} = 0;$$
$$K^\alpha L^{1-\alpha} = \bar{Y}.$$  

Solving these equations for the optimal values of $K, L$ and plugging them in the original objective function, we obtain the cost function:

$$C(w, r, \bar{Y}) = \bar{Y} r^{1-\alpha} w^\alpha \xi(\alpha),$$

where $\xi(\alpha)$ is simply a constant that depends on the parameter $\alpha$. Shephard’s lemma states that the demand for each factor is equal to the derivative of the cost function with respect to that factor’s price:

$$L_d = \frac{\partial C(w, r, \bar{Y})}{\partial w} = \frac{\partial C(w, r, \bar{Y})}{\partial r}.$$
\begin{align*}
L_d &= \alpha \left( \frac{r}{w} \right)^{1-\alpha} \xi(\alpha) \bar{Y}; \\
K_d &= (1 - \alpha) \left( \frac{w}{r} \right)^{\alpha} \xi(\alpha) \bar{Y}.
\end{align*}

To solve for \( \bar{Y} \), we use the condition of equilibrium in the market for the final good: \( \bar{Y} = Y_d \), together with the condition that, in a competitive market, the price of the final good is equal to its marginal cost, which in this case is: \( p = \partial C(w, r, \bar{Y})/\partial \bar{Y} \). Since the cost function is linear in \( \bar{Y} \), then the equilibrium in the final good’s market is:

\[
\bar{Y} = \frac{\Gamma}{r^{1-\alpha} w^{\alpha} \xi(\alpha)}.
\]

Substituting this value into the derivatives of the cost function, gives the factor demand functions of the main text.

\section*{6.A.2 Proof of Lemma 2}

These comparative statics result from the fact that the voter’s maximization problem under uncertainty inherits the basic properties of an analogous maximization problem without uncertainty. So, in this proof I will proceed in two major steps. First, I will prove that these results are true of a non-wage income-maximization problem, that is, the problem agents would face if, implausibly, they had linear utility functions and no job. Knowing how to prove these properties for this simple case, we will then be in a position to extend them to the more realistic case of risk-aversion.

\textbf{Step 1: Income Maximization.} Given the previous definitions, we can rewrite the voter’s income as a function of his capital endowment, the economy’s capital-labor ratio and the tax policy:

\[
y_i(\tau, k, k) = ((1 - \tau)(r(\tau)k_i + \tau y(\tau))
= \bar{y} \epsilon(\tau)^{1-\alpha} \left( \alpha \frac{k_i}{k} + \tau \left( 1 - \alpha \frac{k_i}{k} \right) \right).
\]

This function is concave in $\tau$ so that the tax rate that maximizes income is the one that solves $\partial y_i / \partial \tau = 0$. In particular:

$$\tau^* = \frac{1}{(2 - \alpha)(1 - \alpha k_i)} - \frac{\alpha k_i}{1 - \alpha \tau^*}.$$

This expression satisfies the comparative statics results contained in the lemma.

**Step 2: Expected Utility Maximization.** The condition $\partial y_i / \partial \tau = 0$ is also the optimality condition when $z = 0$. We now need to study how the optimum behaves as $z$ increases. The first-order condition for expected-utility maximization is:

$$\frac{\partial y_i}{\partial \tau} = \bar{y}(1 - \alpha) \frac{u(y_i(\tau, k, k) + z) - u(y_i(\tau, k_i, k))}{u'(y_i(\tau, k_i, k))(1 - E(\tau))} + R(z, \tau, k, k).$$

When $z = 0$, $R = 0$ but for any value $z > 0$, $R$ is decreasing in $k$ and increasing in $k_i$. Instead, $\partial y_i / \partial \tau$ is increasing in $k$ and decreasing in $k_i$. As a result, the $\tau$ that solves the first-order condition is also increasing in $k$ and decreasing in $k_i$. To prove the third statement consider $k_i < k_j$ and $k < k'$. From the behavior of the income-maximizing problem we know that if $z = 0$, $\tau^*(k_i, k) - \tau^*(k_j, k) > \tau^*(k_i, k') - \tau^*(k_j, k')$. If $z > 0$, then for every $\tau$, $R(k_i, k) - R(k_j, k) < R(k_i, k') - R(k_j, k')$. Together with the fact that $\partial y_i / \partial \tau$ is decreasing, this implies that the solutions to the first-order conditions for expected-utility maximization also satisfy the same inequality as the income-maximizing case.