

THE POLITICS OF SOCIAL PROTECTION:
WELFARE STATE VERSUS MARKETS' REGULATION

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The politics of social protection: welfare state versus markets' regulation.

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Abstract: Recently, it has been argued that the notion of a European social model is misleading and that there are in fact different European social models with different features and different performances in terms of efficiency and equity. There has been a growing literature trying to identify ideal types and different taxonomies of welfare state models. However, this literature is mainly empirical and there seems to be a lack of formal theorising. In this paper, we try to bridge this gap and investigate if, and how, countries' characteristics influence, through the political process, the welfare state model adopted. In our model, agents differ in two respects: income and socio-economic vulnerability. Policy-makers must decide on two policies: a proportional income tax to finance a social public expenditure providing equal benefits to all citizens, and a market regulation policy which benefits only vulnerable workers providing them additional protection against unemployment risk. Individuals' heterogeneity generates conflict over policies. The political process aggregates this conflict into a policy outcome. Because of policy multidimensionality, to determine the outcome one must specify the political process' details. We feature the political process as a two-party electoral competition in a citizen-candidate model with probabilistic voting. We show that an inefficient equilibrium exists and this outcome is more likely the greater is income inequality. Intuitively, greater inequality raises the level of redistributive spending desired by the poor, making, at the same time, the rich more adverse to the welfare state. In this framework, both the rich and the poor, in order to win the election and realize the fiscal gain, have an incentive to support market restrictions, in the attempt to capture the votes of the vulnerable minority, who benefit from these policies. Thus, our results suggest that *flexicurity* systems (flexible market and high social protection) are more likely to emerge in countries with a more egalitarian income distribution

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1. Introduction

The recent decline in economic growth in some European countries has intensified the debate on the extent to which the institutional framework affects economic performances. In this paper, we focus on the welfare state and on product and labour market regulation and investigate the political and economic determinants of social protection as resulting from a combination of social public expenditure (SE) and market regulation (MR).¹

Modern welfare states, alongside targeting income inequality and poverty are increasingly required to protect individuals against socio-economic risks such as unemployment, disability, sickness and old age. Specifically, social public expenditure serves insurance purposes against unemployment risk by cushioning the effects of income loss through the provision of unemployment benefits, health care, education, active labour market policies and so on. An alternative means of protection is provided by market regulation, which protects some workers from “unfair” market developments.² The differences between these two alternative social insurance systems against unemployment risk are clear: MR, by increasing the level of job security, protects those who already have a job at the expenses of “outsiders”, and does not impose any tax burden, whereas SE provides insurance to the population at large and is typically financed by direct and indirect taxes.

Having highly regulated markets reduces the probability of job loss for those who have an occupation, but at the cost of decreasing efficiency. Indeed, theoretical and empirical findings seem to confirm that reforms aimed at reducing product and labour market rigidities, would have a positive impact on employment and productivity growth.³ Specifically, Bertola and Boeri (2001) find that when more stringent EPL is associated with higher union bargaining power, then labour market restrictions should be associated with lower employment. More recently Djankov et al. (2004) find that an increase in the employment laws index is associated with an increase in black market activity, a reduction in labour force participation, and an increase in unemployment rates.

While the effects of labour market policies are primarily on employment, product market regulations are likely to have macroeconomic effects mainly through their impact on productivity. However, the effects of product market regulation on productivity are complex and point in different directions.⁴ Likewise, the empirical literature reaches very disparate results and seems

¹ As stressed by Alesina and Glaser (2004), redistribution is not only along the rich/poor dimension but it is “multi-faceted” and it includes labour and goods market regulation, which often favour the “insiders” but may have negative effects for the unemployed or those outside the labour force. Therefore, to evaluate a social system both in terms of equity and efficiency social public spending and market regulations must be considered together.

² The alternative role of SE and MR as social protection mechanisms has recently been advocated by Atkinson (2008).

³ For a theoretical analysis see Saint Paul (1997 and 2002).

⁴ See Nicoletti and Scarpetta (2005) for an empirical discussion of this complex relationship. See also Aghion and Howitt (2006) who emphasise two main aspects of competition that are likely to affect productivity, namely, competition

unable to give a clear-cut answer.⁵ Aghion et al. (2007) provide an explanation for this disparity by pointing out the relevance of countries' position relative to the technological frontier. Their estimates suggest important gains in productivity growth, i.e. in potential growth, that may be achieved in some industrialised, mainly European, countries after undertaking ambitious reforms to increase the education level in the workforce and decrease rigidities in labour and product markets. Interestingly, their most satisfactory estimates are obtained when taking into account the interaction between labour and product market rigidities (rather than considering them separately).⁶

As suggested by Blanchard and Giavazzi (2003), product market regulation may also have consequences for employment. Indeed, Blanchard and Tirole (2004) and Nickell et al. (2005) show that the regulatory product market environment is a smoking gun for divergent labour market performances across countries: common law countries characterised by a relatively liberal approach in both labour and product markets (US, UK, Canada, Ireland, Australia and New Zealand), seem to perform definitely better in terms of unemployment rates.

Using a multidimensional cluster analysis, Boeri et al. (1999) have grouped OECD countries into clusters according to the degree of labour and product market regulation. They have identified four groups: (a) countries which combine tight regulation in both labour and product markets (France, Italy, Greece and Spain); (b) continental European countries with relatively restrictive product market regulation but with different employment protection legislations (Germany, Austria, the Netherlands, Finland and Portugal being more restrictive than Belgium and Denmark); (c) common-law countries characterised by a relatively liberal approach in both labour and product markets (US, UK, Canada, Ireland, Australia and New Zealand), and (d) Sweden, which together with Japan, combines relatively restrictive labour market regulation with relatively few product market restrictions. By adding to this analysis indicators of social transfers, Bertola, Boeri and Nicoletti (2001) identify at least four different Social Europes each with its own performance in terms of efficiency and equity.⁷ Boeri (2005) compares the performance of the different regimes in terms of reduction of income inequality and poverty protection against uninsurable labour market risk and reward to labour market participation. This comparative analysis has been summarised by Sapir (2006) with reference to efficiency and equity to conclude that the Nordic and the Anglo-Saxon

among incumbents and entry, exit and turnover. The literature showing a positive effect on growth of competition and entry into the product market, particularly within highly innovating sectors is surveyed in Aghion and Griffith (2005).

⁵ For a survey emphasising this diversity, see Babetskii and Campos (2007).

⁶ The issue of the interaction between labour and product market is taken up by Fiori et al. (2007) who, drawing on Blanchard and Giavazzi (2003), discuss the issue of substitutability and complementarity of product and labour market regulation on employment. Using a simple bargaining model, they suggest that employment depends negatively on product and labour market regulation which therefore can be considered as "substitute".

⁷ Esping-Andersen (1990) has been the first to emphasise cross-national differences in social systems, rejecting the idea of a single European social model. For a survey of the debate following Esping-Andersen's taxonomy see Arts and Gelissen (2002).

models are both efficient (flexible), but only the former manages to combine equity and efficiency. The Continental and Mediterranean models are inefficient (rigid) and unsustainable.

If any policy diffusion mechanism were at work, we should have observed convergence to the “best” regime.⁸ Conversely, evidence suggests that there is no convergence to a unique model. Several reasons have been put forward to explain the emergence of different social systems, including culture, values and beliefs.⁹ Whatever the reasons for the emergence of different socio-economic institutions are, they must receive political support to persist. The question we pose in this paper is why inefficient policies, such as market regulations, often designed to the advantage of minority groups, can survive against the will of the majority and even if they hurt economic development? Why the majority does not vote these privileges out?

To understand why it is so difficult to reform labour and product markets, even in the face of globalization’s major challenges, it is important to recognize that market rigidities respond to a call for protection against uninsurable risk (such as unemployment) of some workers.¹⁰ Therefore, when considering possible reforms, one has to take into account alternative instruments to reach the same goal and their political sustainability. Specifically, since social protection can be also provided through SE (social public expenditure), political determinants of MR (market regulation) and SE should be jointly analysed.

Exposure to risk and relative income are remarkably strong predictors of preferences over alternative forms of insurance.¹¹ In general, the higher the risk of unemployment, the higher the demand for safety net (redistributive spending) by employed workers. However, the risk of unemployment differs among workers: those characterized by low skill portability have more difficulties in finding a job elsewhere and these difficulties further increase if the worker is employed in sectors adversely exposed to globalization. Thus, for more vulnerable workers, the safety net provided by social public expenditure can only mitigate the devastating effects of job deprivation and, certainly, does not provide them with full insurance. For these workers, the demand for insurance will take the form of a call for labour and product market regulation which, limiting the scope of competition, reduces the risk of job loss and increases job tenure. On the contrary, workers whose skills are more portable and/or labour market “outsiders” will oppose market regulation, since it prevents them from bidding for new opportunities.

⁸ Two broad classes of policy diffusion mechanism can be identified, one in which policy adoption alters the benefit of adoption for others and another in which adoption provide information about the cost and benefits of a particular policy innovation (see Simmons and Elkins, 2004).

⁹ Benabou and Tirole (2006) borrow from psychology the idea of *cognitive dissonance* to explain individual beliefs in a just world. They show that, starting from the same initial conditions, society may end up in two different equilibrium welfare state, each characterised by different beliefs on individual responsibility or bad luck for being poor.

¹⁰ See Saint Paul (1996) for an analysis of reform failures in Europe

¹¹ See Cusack, Iversen and Rhem (2005).

In addition, individuals' income heterogeneity generates conflicting political preferences about the generosity of the welfare state. Those having an higher-than-average income will support a reduction in the welfare state's size, whereas those having lower-than-average income will support an increase of the safety net.

The combination of SE and MR that will prevail in equilibrium depends on how the political process composes conflicts among individuals.

Following a strand of the recent political economy literature, this paper argues that if policy is multidimensional then minority groups may succeed in influencing the electoral outcome to their advantage.¹² To discuss these matters, we present a simple model in which individuals are heterogeneous along two dimensions: income and vulnerability. Individuals' heterogeneity generates conflicting political preferences which are aggregated through an electoral competition. The elected policy-maker must decide the level of SE and the degree of MR. The latter policy, which reduces insiders' risk of job loss in case of an adverse shock, can be thought of as labour market policy, such as EPL, or as an industrial policy protecting declining sectors.

As it is well known, in case of a multidimensional policy space, the median voter theorem cannot be applied.¹³ Besley and Coate (2000) recognise that, in a representative democracy with a multidimensional policy space, when voting, citizens must compare gains from the different policies to determine which is the salient issue and then vote accordingly.¹⁴ Due to multidimensionality, outcome on specific issues might diverge from that preferred by the majority. Applying Besley and Coate's (2000) methodology, we show that market regulation can be the result of political competition in which a minority of vulnerable individuals are able to influence the electoral outcome. This is more likely to happen, *(i)* if the income distribution is sufficiently polarised, so that the majority care more about social public spending than about market regulation, *(ii)* the higher the proportion of vulnerable workers in the population, *(iii)* the higher the gain this minority can get by blocking the flexibility of the market.

Our paper is strictly related to the literature which seeks to explain welfare and social security systems by using a political economy approach. This literature studies the support to different social protection policies stemming from interested voters. Saint Paul (1997, 2002) provides an analysis of

¹² As it is evident by our description of political competition (see below), we do not invoke lobbying to obtain our results.

¹³ In fact, a median voter equilibrium is guaranteed in a one-dimensional issue space under the assumption of singled peaked preferences (or single crossing). If preferences are not single peaked or if the issue space is multi-dimensional Nash equilibrium of a majoritarian voting game may fail to exist. The literature has proposed various technical solutions to this problem reaching the conclusion that in case of multidimensional policies, to predict which groups will be most powerful in the struggle for benefits, the details of the political process must be specified (see Persson and Tabellini, 2000).

¹⁴ Roemer (1998) has been the first to examine how the existence of a second issue other than general redistribution affects policy outcomes in a model with political parties. He shows that the existence of another salient issue (e.g. religion), can work against the pure economic interests of the poor if this non-economic issue is sufficiently important.

the political economy of labour institutions and their impact on employment. The political process portrays conflicting preferences over the degree of labour market protection between employed and unemployed workers. However, the policy space is unidimensional and this does not allow to consider strategic interactions between different groups deriving from the introduction of additional policy issues (such as the intensity of redistribution). The multidimensionality of the policy space is explicitly considered by Boeri et al. (2006). They model labour market protection (EPL) and unemployment benefits as two social protection means operating redistribution between insiders and outsiders and between low and high productivity workers. The issue of policy multidimensionality is also addressed by Amable and Gatti (2005). In their framework, agents vote on alternative institutional options: the degree of labour market flexibility and the intensity of redistribution. They show that the equilibrium welfare state configuration depends on the process of compromise formation, which in turn depends on the nature of the political system (majoritarian, coalition, two-party).

In modelling choices over the degree of market regulation and the intensity of redistribution, our paper is close to Amable and Gatti. As in their framework, in our model the political equilibrium depends on the process of compromise formation among voters with conflicting objectives. However, differently from them, to solve the shortcomings deriving from the multidimensionality of the policy space, we adopt the methodology proposed by Besley and Coate (2000) in a two-party framework. This methodology also differentiates our model from Boeri et al.'s (2006) contribution and allows us to reach quite interesting results linking the configuration of the political equilibrium to the country's income distribution. Specifically, our paper suggests that *flexicurity* systems (flexible market and high social protection) are more likely to emerge in countries with a more egalitarian income distribution.

The rest of the paper is organised as follows: section 2 describes the model; section 3 introduces the political process; the political equilibrium is discussed in section 4 and finally section 5 contains some concluding remarks.

2 The model

The economic environment

Consider an economy with a continuum of individuals of measure one. Initially, (at $t=1$) individuals are exogenously allocated to different labour market status. A fraction u_1 of the population is unemployed and a fraction $1-u_1$ is employed. Employed individuals inelastically supply one unit of

physical labour and receive a real wage w^k equal to their productivity.¹⁵ Innate talent and level of education affect labour productivity; individuals can either be high productivity type or low productivity type. Let γ_L be the fraction of low productivity individuals among employed workers, and $\gamma_H = 1 - \gamma_L$ the fraction of high productivity ones. Thus, aggregate output at time t is equal to $(1 - u_t)w = (1 - u_t)(\gamma_L w^L + \gamma_H w^H)$, with $w^H > w^L$.¹⁶

Along with productivity, which determines a worker's income, we consider a second source of heterogeneity: socio-economic risk (or vulnerability). To this purpose, we assume that employed workers are partitioned according to their skill, which can be general or specific, and according to the sector of production in which they are employed (that can be declining or deep-rooted).¹⁷ A worker whose skill is specific to a job, firm or sector is more vulnerable to socio-economic risk. In case of an adverse shock, he may lose his job and have difficulties finding a new occupation or may have to accept re-employment into a job where his skill are not fully utilised causing him a greater damage than that suffered by an individual equipped with general and more portable skill. This vulnerability is obviously amplified if the worker is also employed in sectors adversely exposed to globalization, that is old activities (declining sectors). On the contrary, low skill portability is less important in determining vulnerability if the sector of employment is better equipped to cope with international competition (deep-rooted sectors). Let γ^{NV} denote the fraction of employed workers with general skill and/or employed in deep-rooted sectors (Non Vulnerable) and let $\gamma^V = 1 - \gamma^{NV}$ indicate the fraction of those employed in declining sectors with specific skill (Vulnerable).

In what follows, we assume that productivity, vulnerability and labour market status are independently distributed.¹⁸

In the second period, employment is determined by the dynamics of firing and hiring. Suppose that an exogenous shock might hit the economy with probability φ . If the shock materialises vulnerable

¹⁵ Beside simplicity, the assumption of rigid labour supply, dispenses us to deal with the disincentive argument, according to which social protection distorts economic decisions. As argued by Atkinson (2008 p. 26), “the trouble with this position is that it assumes a world of perfectly competitive and perfectly clearing markets [...]. However, in order to examine the economics of social protection, we have to move away from an assumed world of perfectly competitive and perfectly clearing markets”

¹⁶ Since our concern is with unemployment rather than productivity and growth, for simplicity we assume that the average productivity of employed workers does not change over time.

¹⁷ By the term deep-rooted we mean sectors well equipped to cope with international competition.

¹⁸ If productivity, vulnerability and labour market status are independent then the proportion of vulnerable (non vulnerable) among high income individuals is the same as that among low income individuals. Moreover, if productivity and labour market status are independent then the proportion of high (low) productivity individuals among employed workers is the same as that among unemployed workers. Formally, the proportion of individuals of type $i-k$ is: $\gamma_k^i = \gamma^i \gamma_k$ for $i = NV, V, U$ and $k = H, L$. Thus, for $k = H, L$, the proportion of the different types in the population are: $\gamma_k^{NV} = (1 - u_1) \gamma^{NV} \gamma_k$ $\gamma_k^V = (1 - u_1) \gamma^V \gamma_k$ $\gamma_k^U = u_1 \gamma_k$

workers will loose their job.¹⁹ Moreover, let ϑ be the probability with which an unemployed worker finds a new job;²⁰ then the expected level of unemployment in period 2 is given by $u_2 = \varphi\gamma^V(1-u_1) + (1-\vartheta)u_1$.

Economic agents

Individuals derive utility from private consumption and social public expenditure.²¹ Moreover, we assume that the employment status affects utility. More precisely, we assume that job deprivation carries out not only income losses but also non-pecuniary costs, such as social exclusion, skill loss, psychological harm, illness, motivational loss, loss of responsibility and self-reliance etc..²²

Formally, let $W_k^i = c_k^i + g + p^i\beta$ be the second period expected utility function of the generic individual of type i earning wage income w^k . The supscript, $i = NV, V, U$, indicates whether the individual is currently employed, and if employed his type (Non Vulnerable or Vulnerable), or unemployed. $c_k^i = p^i(1-\tau)w^k$ is (expected) consumption, which is equal to expected after tax (τ) wage-income, $g \in \mathfrak{R}^+$ is expected government social spending, p^i is the probability to be employed in the second period, and finally $\beta \in \mathfrak{R}^+$ is a real scalar that can be interpreted as a measure of the non-pecuniary costs associated to job deprivation.

Policy-making

At the beginning of period 2, before the shock is realised, an election takes place. The elected policy-maker must decide the level of the (proportional) tax rate ($\tau \in [0,1]$) and the degree of labour and product market regulation ($\pi \in [0,1]$). Tax revenues finance social public expenditure (SE), which provides insurance against socio-economic risk. Labour and product market regulation (MR) offers additional protection to vulnerable workers by reducing the risk of job loss, but, at the same time, by limiting the market capacity of re-allocating resources, market regulation decreases the outflow rate from the unemployment pool.²³ We formalize this argument by letting firing and

¹⁹ Therefore, at $t=1$ the probability to be fired for vulnerable workers is equal to φ .

²⁰ For simplicity we are assuming that all unemployed workers have the same probability of being hired.

²¹ Social public expenditure includes, public services such as health care and education provision, unemployment benefits, active labour policies, etc..

²² See Sen (1997) for a detailed description of the non pecuniary costs associated to job deprivation.

²³ We have in mind measures that limit competition in the good and labour market such as: licenses, certificates of convenience and necessity, tariffs and quotas (which confer monopoly gains within certain geographic areas), immigration laws) and measures like EPL (which limit labour market competition).

hiring depend on π and assuming $\frac{\partial \varphi(\pi)}{\partial \pi} < 0$ and $\frac{\partial \vartheta}{\partial \pi} < 0$.²⁴ We also assume that, if $\pi = 1$ then $\varphi(\pi) = \vartheta(\pi) = 0$. We can therefore write the probabilities of being employed in the second period as functions of the degree of market regulation, that is: $p^{NV} = 1$, $p^V = 1 - \varphi(\pi)$ and $p^U = \vartheta(\pi)$. Moreover, in line with the empirical evidence discussed in the introduction, we assume that market regulation increases expected unemployment. Formally,

Assumption 1 (inefficiency of market regulation)

$$\frac{\partial u_2}{\partial \pi} > 0$$

Assumption 1 and the government budget constraint, $[1 - u_2(\pi)]\tau w = g$, imply that for a given tax rate, social public expenditure decreases with market regulation, that is $\frac{\partial g}{\partial \pi} = -\frac{\partial u_2}{\partial \pi} \tau w < 0$. This means that the higher the degree of market regulation, the lower are available resources for protection through social expenditure.²⁵

Political Preferences

To determine political preferences, substitute the government budget constraint into the individuals' utility function to get:

$$\begin{aligned} W_k^{NV} &= (1 - \tau)w^k + [1 - u_2(\pi)]\tau w + \beta \\ W_k^V &= [1 - \varphi(\pi)](1 - \tau)w^k + [1 - u_2(\pi)]\tau w + [1 - \varphi(\pi)]\beta \\ W_k^U &= \vartheta(\pi)(1 - \tau)w^k + [1 - u_2(\pi)]\tau w + \vartheta(\pi)\beta \end{aligned}$$

Voters' preferences about social expenditure and about market regulation can be obtained by looking at the marginal impact of these policies on individuals' expected utility. As for preferences about SE we have:

$$\begin{aligned} \frac{\partial W_k^{NV}}{\partial \tau} &= -w^k + [1 - u_2(\pi)]w \\ \frac{\partial W_k^V}{\partial \tau} &= -(1 - \varphi(\pi))w^k + [1 - u_2(\pi)]w \\ \frac{\partial W_k^U}{\partial \tau} &= -\vartheta(\pi)w^k + [1 - u_2(\pi)]w \end{aligned}$$

²⁴ Note that $\varphi(\pi)$ denotes the probability to be fired for vulnerable workers, which coincides with the shock probability φ when $\pi = 0$.

²⁵ Thus, as argued by Atkinson (2008 p.27), "increased labour market flexibility offers an alternative to cutting social spending"

As for preferences over MR, we have:²⁶

$$\begin{aligned}\frac{\partial W_k^{NV}}{\partial \pi} &= -\frac{\partial u_2}{\partial \pi} \tau w \leq 0 \quad \forall \tau \geq 0 \\ \frac{\partial W_k^V}{\partial \pi} &= -\frac{\partial \varphi}{\partial \pi} (1-\tau) w^k - \frac{\partial u_2}{\partial \pi} \tau w - \frac{\partial \varphi}{\partial \pi} \beta \\ \frac{\partial W_k^U}{\partial \pi} &= \frac{\partial \mathcal{G}}{\partial \pi} (1-\tau) w^k - \frac{\partial u_2}{\partial \pi} \tau w + \frac{\partial \mathcal{G}}{\partial \pi} \beta < 0 \quad \forall \tau \geq 0\end{aligned}$$

To obtain interesting conflicts among different groups in the population, we make the following assumptions.

Assumption 2 (income dispersion):

$$\begin{aligned}(i) \quad &\frac{1-u_2}{1-\varphi} < \frac{w^H}{w} < \frac{1-u_1}{\mathcal{G}} \\ (ii) \quad &0 < \frac{w^L}{w} < 1-u_1\end{aligned}$$

Assumption 2 implies that high productivity employed workers desire to reduce the tax burden and thus social public expenditure, while unemployed and low income employed workers prefer high taxation to maximize social public expenditure. Under assumption 2, it is easy to verify that high productivity employed individuals prefer a tax rate equal to zero (no redistribution) while unemployed and low productivity individuals prefer a tax rate equal to 1 (max redistribution) independently of market regulation.

Assumption 3 (protection through market regulation)

$$-\frac{\partial \varphi(\pi)}{\partial \pi} (1-\tau) w^k + \beta > \frac{\partial u_2}{\partial \pi} \tau w \quad \forall 0 \leq \tau \leq 1$$

Assumption 3 says that for vulnerable workers of both income types, the gain from market regulation (due to the decrease in the risk of being fired) is greater than the cost (due to the decrease in SE caused by the reduction of aggregate resources), independently of the level of taxation. In other words, what we are assuming is that the non-pecuniary cost of unemployment outweigh monetary compensation from redistribution. This means that vulnerable workers benefit from additional protection through market regulation even if it comes at the cost of reducing social insurance through SE. This amounts to say that for vulnerable workers the safety net provided by redistributive spending can only mitigate the deprivation brought about by job loss. For these

²⁶ Recall that $\frac{\partial u_2}{\partial \pi} > 0$, $\frac{\partial \varphi(\pi)}{\partial \pi} < 0$, $\frac{\partial \mathcal{G}}{\partial \pi} < 0$, $\frac{\partial \mathcal{G}}{\partial \pi} < 0$. Also note that when $\tau = 0$ non vulnerable workers are indifferent to market regulation: if there is nothing to be re-distributed then MR cannot reduce social public expenditure, which is already nil.

workers the demand for social insurance will take the form of a call for labour and product market regulation.

On the basis of the preferences over (τ, π) , four groups of individuals can be distinguished, whose bliss points are as follows:

$$\begin{aligned} (0,0) &= \{i, k | k = H; i = NV\} & (0,1) &= \{i, k | k = H; i = V\} \\ (1,0) &= \{i, k | k = L, H; i = U\} \cup \{i, k | k = L; i = NV\} & (1,1) &= \{i, k | k = L; i = V\} \end{aligned}$$

In a multidimensional policy space, we say that for a citizen a policy is *salient* if potential gains (or losses) from that policy exceed potential gains (or losses) from any other policy. Following Besley and Coate (2000), in the next section, we will assume that, when voting in a two-party electoral competition, a citizen firstly looks at the parties' attitude towards his *salient* policy.

For the ik -th citizen, the gains from the preferred degree of market regulation ΔMR_k^i and from the preferred redistributive policy ΔSE_k^i are given, respectively, by:

$$\Delta MR_k^i = |W_k^i(\tau, 0) - W_k^i(\tau, 1)| \quad \text{and} \quad \Delta SE_k^i = |W_k^i(0, \pi) - W_k^i(1, \pi)|$$

In the next lemma, we prove that if non pecuniary costs are sufficiently high then (i) market regulation is *salient* for vulnerable and unemployed workers, and (ii) all other individuals regard redistributive policy as the *salient* issue.

Lemma 1 (salience). Under assumptions 2 and 3, if $\beta > \bar{\beta}$ then

$$(i) \quad \Delta MR_k^i > \Delta SE_k^i \quad k = H, L \quad i = U, V$$

$$(ii) \quad \Delta MR_k^{NV} < \Delta SE_k^{NV} \quad k = H, L$$

Proof. (See appendix)

In what follows, we assume that vulnerable and unemployed workers, for whom MR is salient, are a minority in the population.

Assumption 4: *SE is salient for the majority of the population, that is $\gamma^{NV} > \gamma^V + \frac{u_1}{1-u_1}$* ²⁷

3. The political process

At the beginning of the second period, an electoral competition takes place. An election gives rise to a game whose players are parties and voters.

²⁷ Note that this assumption implies that the majority of employed workers is of type NV, that is $\gamma^{NV} > \gamma^V$

3.1 Parties

We have seen that there are four groups of individuals who share the same preferences over policies. Thus, four parties could potentially be formed. In what follows, we assume that candidates in the election are put forward by only two parties, denoted A and B.²⁸ Each party includes citizens who share preferences on redistributive policy:²⁹ specifically, all members of Party A prefer $\tau = 1$, while all members of party B prefer $\tau = 0$. Following Besley and Coate's (1997) and Osborne and Slivinsky's (1996) citizen-candidate models, we assume that no ex-ante commitment is possible: once elected, a citizen chooses his preferred policy mix. Thus, each party's strategy consists of the choice of a candidate. Parties select candidates by majority voting;³⁰ furthermore, we assume that the majority of each party's members prefer $\pi = 0$.

Lemma 2 (parties' median member). *If $\gamma^{NV} > \gamma^V$ then both parties' median member opposes market regulation.*

Proof. If income (productivity) and vulnerability are independently distributed then among individuals who favour redistribution, those who oppose market regulation are the majority if $(1 - u_1)\gamma^{NV}\gamma_L + u_1 > (1 - u_1)\gamma^V\gamma_L$. Analogously, among individuals who oppose redistribution, those who oppose market regulation are the majority if $(1 - u_1)\gamma^{NV}\gamma_H > (1 - u_1)\gamma^V\gamma_H$.

Our last assumption is on the identity of parties' median member:

Assumption 5: *Both parties' median member is non vulnerable.*³¹

3.2 Voters³²

There are two types of voters. A fraction μ are *rational voters*: they vote the candidate whose proposed policy maximises their pay-off function. The remaining fraction are *noise voters*. A fraction η of the noise vote goes to party A, where η is a random variable distributed in the

²⁸ One of the most widely cited facts, is that under systems of plurality rule there are two main parties (this is the so-called Duverger's Law, after Duverger, 1954). One possible explanation of this stylised fact is that if there are three or more parties at least one can withdraw giving its vote to the "closest" party and cause it to win outright (see Osborne, 1995, for an account of ideas that explain Duverger's Law).

²⁹ This is consistent with assumption 4.

³⁰ Alternatively, we could have assumed that party members select candidates via some type of bargaining process. In this case the candidate chosen would maximize the expected payoff of a pivotal party member. Under majority voting the pivotal party member is the median. For a discussion of inter and intra party competition in general elections see Roemer (2004) and Levy (2004).

³¹ Party A's median member is of type NV if $(1 - u_1)\gamma^{NV}\gamma_L > (1 - u_1)\gamma^V\gamma_L + u_1$ that is, $\gamma^{NV} > \gamma^V + \frac{u_1}{(1 - u_1)\gamma_L}$

which is a stronger condition than assumption 4. As for party B, having assumed $\gamma^{NV} > \gamma^V$ the median member must be of type NV.

³²The description of the noise vote is based on Besley and Coate (2000, 2003).

interval $[0,1]$ according to the cumulative distribution function $H(\eta)$. We assume that H is symmetric so that for all η , $H(\eta) = 1 - H(1-\eta)$. This means that the probability that a fraction less than η vote for party A's candidate is equal to the probability that a fraction less than η vote for Party's B candidate. Let ω represents the difference between the fraction of voters obtaining a higher utility from the policy chosen by party A and the fraction of voters who benefit more from party B 's policy. Therefore, given ω , the probability that party A wins is given by $\Psi(\omega)$. We assume that noise voters in the population are sufficiently numerous so that, if redistributive policy were the only issue, both parties would have a positive probability of winning the election. Under assumption 2, this requires $\Psi((1-u_1)(\gamma_L - \gamma_H) + u_1) \in (0,1)$.³³

3.3 Voting game

An election gives rise to a game between the two parties in which each party's strategy has two dimensions and can be represented by a policy vector $h_Z = (\tau_Z, \pi_Z)$ with $Z \in \{A, B\}$. A Nash equilibrium of the voting game is a couple of policy vectors, $h_Z^* = (\tau_Z^*, \pi_Z^*)$, one for each party, which are mutual best responses. Party members know the election probabilities associated with different candidate pairs and take them into account when voting. Thus, party Z chooses a citizen-candidate whose preferences about redistributive policy and market regulation maximise the expected median member's payoff.³⁴

4. Political Equilibrium

This section provides a description of political decision making. We show that, even if the majority of the two parties' members oppose market regulation, if this issue is *salient* for a minority of vulnerable individuals who prefer $\pi = 1$, then the political equilibrium might feature highly regulated markets with probability one. Specifically, we show that, under certain conditions, parties in equilibrium renounce to their stance on market regulation to gain the support of a minority who favour protection through limited competition. This support, in turn, allows to obtain an electoral gain on the dimension which is salient for the majority of individuals (redistributive policy).

4.1 Policy choices

³³ If redistribution were the only issue at stake, unemployed and low productivity workers would vote for party A while high productivity workers would vote for party B; the difference in parties' vote share is therefore $(1-u_1)(\gamma_L - \gamma_H) + u_1$

³⁴ Note that parties are not Downsian: namely, they don't wish to maximize the probability of winning the election per se, but rather to maximize the expected payoff of their median member.

Since citizens have only one vote, but each party's strategy is bi-dimensional, when voting individuals have to compare the gains from the two policy issues. This assumption implies that vulnerable and unemployed workers cast their vote firstly looking at a candidate attitude towards market regulation; however, while unemployed workers share the majority stance on regulation, vulnerable workers hold a minoritarian view on this issue. Differently, the majority of the population vote firstly looking at a candidate attitude towards redistributive policy.³⁵

Next, we give sufficient conditions under which in equilibrium both parties select candidates who share the redistributive policy preferences of their members, but who have non majoritarian stance on market regulation. The intuition behind this result builds on the fact that under certain conditions both parties may find profitable pandering to vulnerable workers minority, by running a candidate who shares their minority stance on market protection, to avoid giving the other party the electoral advantage of their political support.

Proposition 1 (market regulation). *Let γ_L^V (γ_H^V) indicates the proportion of low (high)-productivity workers of type $V(NV)$.³⁶ If*

$$(i) \Psi((1-u_1)(\gamma_L - \gamma_H) + u_1)[(1-u_1)w - w^L] > \Psi((1-u_1)(\gamma_L - \gamma_H) + u_1 - 2\gamma_L^V)[(1-u_2)w - w^L]$$

$$(ii) \gamma_H^V > u_1$$

then under assumptions 4 and 5 the non-majoritarian outcome ($\pi = 1$) is chosen with probability one.

Proof. (see appendix).

The sufficient conditions guarantee that when both parties are choosing the degree of market regulation preferred by the minority, switching to the one preferred by the majority decreases the median member's expected pay-off. Indeed, the gain from switching to the preferred regulation policy is offset by the loss due to the decreased probability of winning the election. Intuitively, if party B is choosing a vulnerable candidate, then, under the conditions stated, the best-reply for party A is to make the same choice. Indeed, if party A were to choose a candidate who opposes market regulation it would increase the median member pay-off in case of success, but it would reduce the probability of winning the election by loosing the votes of low-productivity workers of type V for whom market regulation is *salient*. Condition (i) guarantees that the expected pay-off of party A 's median member is higher if the party pleases the minority of vulnerable workers. An analogous

³⁵If redistributive policy were *salient* for the whole population, the equilibrium of the policy game would be straightforward: rational voters would vote for the candidate who shares their redistributive policy preferences and the equilibrium outcome would depend on the median voter preferences.

³⁶ Recall that $\gamma_L^V = (1-u_1)\gamma^V \gamma_L$

reasoning ensures that if high-productivity vulnerable workers are more numerous than unemployed workers (i.e. condition (ii) is satisfied) then party B's best reply to a candidate who favours market regulation is to choose a pro-market regulation candidate.

The conditions in proposition 1 are more easily satisfied when vulnerable workers are numerous but also when each party can make a large electoral gain from getting a few more voters. This would be the case, for example, when the fractions supporting the two parties are close together and there are relatively few noise voters (Besley and Coate, 2000 p. 10).

Proposition 1 gives theoretical support to the idea that intense minorities may exercise a strong political influence on the issues they care about.

Corollary (redistributive policy). *In the political equilibrium, $\tau = 1$ is chosen with probability $\Psi(\gamma_L + 2u_1\gamma_H - \gamma_H)$ and $\tau = 0$ with the complementary probability.*

Proof. Since parties differentiate only on the redistributive policy, all those who favour redistribution will vote for party A and all those who prefer no redistribution will vote for party B.

Concluding Remarks

In this paper, we have considered alternative measures to ensure against socio-economic risk. Social protection can be obtained through social public expenditures in a flexible environment or through regulations which limit the scope for market competition. These measures, instead of encouraging, helping and accompanying adaptation to increasingly rapid changes, protect the status quo, making even more difficult the reallocation of resources. Our main proposition gives sufficient conditions for measures blocking market competition to receive political support. Our result suggests that globalization, by increasing vulnerability as well non-pecuniary costs of unemployment, might foster political support for inefficient policies.

An implication of our model, which we will investigate in future research, is the possibility of multiple equilibria. If regulations reduce available resources for redistribution, the consensus on redistribution policies might decrease and this in turn might generate much lower budgeting than what is feasible in flexible systems. Given the inadequacy of the social insurance provided by the welfare system, demand for alternative sources of social protection, such as market regulation, will increase, making the political equilibrium supporting inefficient regulation policies stable. This might explain the stability of political equilibria supporting inefficient regulation policies and why reforms' efforts might be bound to fail. On the contrary, if markets are flexible, potential budget allocations increase for each level of taxation. This will increase consensus over redistributive

policies allowing, in turn, higher budgeting. Pressures to implement inefficient measures of social protection will decrease, thus making the *flexicurity* equilibrium stable.

Appendix

Proof of Lemma 1

Market regulation is salient for vulnerable workers of productivity type k if:

$$\varphi(1-\tau)w^k - (u_1 - u_2)\tau w + \varphi\beta > [1 - \varphi(\pi)]w^k - (1 - u_2(\pi))w$$

For this inequality to hold for each worker's productivity type it is sufficient that

$$\beta > \max \left\{ \frac{w^H - w(1 - 2u_1 + u_2)}{\varphi}, \frac{w(1 - 2u_2 + u_1) - (1 - \varphi)w^L}{\varphi} \right\}$$

As for unemployed workers, market regulation is the salient issue if

$$\mathcal{G}(1-\tau)w^k + (u_1 - u_2)\tau w + \mathcal{G}\beta > (1 - u_2(\pi))w - \mathcal{G}(\pi)w^k$$

that is,

$$\beta > \frac{(1 - u_1)w - \mathcal{G}w^L}{\mathcal{G}}$$

Therefore MR policy is salient for vulnerable and unemployed workers when

$$\beta > \max \left\{ \frac{w^H - w(1 - 2u_1 + u_2)}{\varphi}, \frac{w(1 - 2u_2 + u_1) - (1 - \varphi)w^L}{\varphi}, \frac{(1 - u_1)w - \mathcal{G}w^L}{\mathcal{G}} \right\}$$

For non vulnerable employed workers of income type H, redistributive policy (SE) is salient if

$$\frac{w^H}{w} > 1 - u_2$$

while for non vulnerable employed workers of income type L, redistributive policy (SE) is salient if

$$\frac{w^L}{w} < 1 - 2u_1 + u_2$$

Both conditions hold under Assumption 2.

Proof of proposition 1:

For $h_A = (1, 1)$ and $h_B = (0, 1)$ to be Nash equilibrium strategies of the policy game, we have to find sufficient conditions such that $h_A(1, 1)$ is the best response to $h_B = (0, 1)$ and vice versa. First consider party A and suppose that the its median member is of type NV. The specified strategies bring about the following expected pay-off for party A's median member:

$$E_\eta [c_A^m | h_A = (1, 1), h_B = (0, 1)] = \Psi((1 - u_1)(\gamma_L - \gamma_H) + u_1)[(1 - u_1)w] + [1 - \Psi((1 - u_1)(\gamma_L - \gamma_H) + u_1)]w^L + \beta$$

In order to show that $h_A = (1, 1)$ is the best response to party B 's strategy, we have to compare the previous expected pay-off with the pay-off obtainable by choosing the alternative strategies: $(0,0)$; $(0,1)$ and $(1,0)$.

Consider $(0,1)$. It is easy to see that $E_\eta [c_A^m | h_A = (0,1), h_B = (0,1)] = w^L + \beta$. If $\Psi > 0$ then, since $w^L < (1-u_1)w$, $(1, 1)$ is certainly preferred to $(0, 1)$.

Next consider $(0,0)$. It is easy to see that $E_\eta [c_A^m | h_A = (0,0), h_B = (0,1)] = w^L$. If $\Psi > 0$ then, again, since $w^L < (1-u_1)w$, $(1, 1)$ is certainly preferred to $(0,0)$. In fact, the party does not wish to compromise on the redistributive policy because the gain from choosing the preferred redistributive policy is greater than the gain from compromising on the redistributive policy and choosing $\pi = 0$, while the opponent chooses the policy preferred by the minority.

Finally, consider $h_A = (1, 0)$. By choosing this strategy, the median member pay-off in case of the party's success will be higher since $(1-u_2)w > (1-u_1)w$; however, party A would lose the votes of rational, low-productivity workers of type V (γ_L^V); thus,

$$\begin{aligned} E_\eta [c_A^m | h_A = (1,0), h_B = (0,1)] &= \\ &= \Psi((1-u_1)(\gamma_L - \gamma_H) + u_1 - 2\gamma_L^V)[(1-u_2)w] + [1 - \Psi((1-u_1)(\gamma_L - \gamma_H) + u_1 - 2\gamma_L^V)]w^L + \beta \end{aligned}$$

We can conclude that a sufficient conditions for $h_A = (1, 1)$ to be a best reply to $h_B = (0, 1)$ is:

$$\Psi((1-u_1)(\gamma_L - \gamma_H) + u_1)[(1-u_1)w - w^L] > \Psi((1-u_1)(\gamma_L - \gamma_H) + u_1 - 2\gamma_L^V)[(1-u_2)w - w^L].$$

Next consider party B . Going through the same steps as before, we can conclude that a sufficient conditions for $h_B = (0, 1)$ to be a best reply to $h_A = (1, 1)$ is: $\gamma_H^V > u_1$

In fact, it is easy to see that, against $h_A = (1, 1)$, $h_B = (0, 1)$ is certainly better than $h_B = (1,0)$ and $h_B = (1, 1)$. By choosing $h_B = (0, 0)$, the median member expected pay-off would be

$$E_\eta [c_B^m | h_A = (1,1), h_B = (0,0)] = \Psi((1-u_1)(\gamma_L - \gamma_H) + 2\gamma_H^V - u_1)[(1-u_1)w] + [1 - \Psi((1-u_1)(\gamma_L - \gamma_H) + 2\gamma_H^V - u_1)]w^H + \beta$$

which is greater than

$$E_\eta [c_B^m | h_A = (1,1), h_B = (0,1)] = \Psi((1-u_1)(\gamma_L - \gamma_H) + u_1)[(1-u_1)w] + [1 - \Psi((1-u_1)(\gamma_L - \gamma_H) + u_1)]w^H + \beta$$

IFF $\Psi((1-u_1)(\gamma_L - \gamma_H) + 2\gamma_H^V - u_1) > \Psi((1-u_1)(\gamma_L - \gamma_H) + u_1)$, that is IFF $\gamma_H^V > u_1$.

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