

Preferences for Social Insurance: The Role of Job Security and Risk Propensity

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ABSTRACT

In a 2003 article, Karl Moene and Michael Wallerstein demonstrated that wealthier citizens tend to support higher spending in social policies directed at the unemployed, while preferring lower spending in policies aimed at the employed. This paper reveals that these findings hinge on two key assumptions: that citizens have a coefficient of relative risk aversion (CRRA) greater than one, and that all citizens face an equal probability of job loss—a presumption which is not necessarily realistic. By incorporating the observation that job security tends to correlate positively with income, we demonstrate that affluent individuals may still advocate for reduced spending in unemployment policies, even when their CRRA exceeds one. Moreover, a significant shift in the distribution of job security—such as during an abrupt economic crisis—might engender greater societal support for these policies, contrary to previous research. Finally, empirical data from recent Brazilian history provide analytical support for the theoretical assertions presented herein.

Keywords: Risk aversion; job security; social insurance; economic inequality; economic shocks; preference ordering reversal.

JEL classification codes: D31, D72, D81

1. INTRODUCTION

Moene and Wallerstein (2003), hereafter referred to as M&W, present a political economy model of voting under uncertainty aimed at better understanding why there may be low support for welfare spending in a high-inequality

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society. This result contradicts the traditional theory on preferences for redistribution developed in the seminal papers by Romer (1975) and, most notably, by Meltzer and Richard (1981), hereafter simply referred to as M&R.

The theoretical result in M&W is particularly important because it presents a situation where spending on social welfare policy may exhibit a "preference ordering reversal," meaning that the richer citizens are, the more they favor unemployment payments. The empirical consequence of this theoretical result is that as inequality increases and the median voter's income decreases relative to mean income, a society may become less supportive of social welfare programs. In the words of M&W: "Instead of 'leaning against the wind,' a substantial share of welfare spending is better characterized as 'bending in the wind,' that is, declining as inequality increases."

M&W argue that the traditional literature focuses on pure redistribution, i.e., redistribution from the rich to the poor; however, a significant part of welfare policy provides insurance, i.e., protection against risk, rather than pure redistribution. The paper then extends the basic model of M&R to include insurance policy and obtains the new result¹.

M&W's important theoretical result hinges on two fundamental assumptions. First, it assumes that the coefficient of relative risk aversion (henceforth, CRRA) of citizens is greater than 1, indicating high risk aversion among voters. Second, it assumes that all citizens face the same probability of losing their jobs regardless of their income². Regarding the first assumption, although somewhat controversial, there are indeed studies that estimate high values for the coefficient of relative risk aversion. Azar and Karaguezian-Haddad (2014), for example, present estimates of CRRA values ranging from as low as 0.466 to as high as 3.021. Gandelman and Hernández-Murillo (2015) use data from the Gallup World Poll to estimate the CRRA for 75 countries and conclude that the values vary closely around one, supporting the findings in the seminal Arrow (1971) paper. Maital (1973) finds evidence suggesting a CRRA around 1.5. Friend and Blume (1975) estimate it to be "on average well in excess of one and probably in excess of two". Similarly, Zanetti (2014) estimates values between 1 and 4 for the CRRA in a model where housing is an important component of household consumption³.

¹ Another related literature examines an additional source of divergence in support for public policy: specifically, targeting versus universal access policies. For a detailed discussion on the challenges associated with transitioning from the former to the latter type of policy, see Bugarin (2023). Other dimensions of public policy that engender heated debates include public versus private electoral campaign financing (Portugal & Bugarin, 2007), mandatory versus compulsory voting (Bugarin & Portugal, 2015), and electronic & paper voting (Schneider et al., 2019; 2020).

² Moene and Wallerstein (2001) present a model where there is heterogeneous risk of losing one's job in society. However, that variation is oversimplified, with the poor being permanently unemployed, the rich permanently employed, and the rest of society facing the same constant net probability of losing their jobs.

³ See also Chetty (2006) for estimations of CRRA around 1 based on labor supply elasticity estimates, with a median below one, and Choi and Menezes (1985) for an example of a value higher than 59. Kaplow (1996) presents an extensive review of the literature on the estimation of relative risk aversion.

Regarding the second assumption, however, there is clear empirical evidence that the probability of retaining one's job is positively related to wage. Indeed, the empirical literature on labor points to the stylized fact that higher wages correspond to more skilled tasks, which are generally scarcer and, thus, more stable. According to Diebold et al. (1994), for example, "[...] retention rates have declined for high school dropouts and high school graduates relative to college graduates [...]". More directly related to the present model, Rehm (2011) explains that "[...] the risk of unemployment and income level are negatively correlated (mainly because education determines both variables) [...]"⁴. For Japan, Takahashi (2015) classifies workers into two categories: "regular employees," who typically enjoy the benefits of lifetime employment contracts and seniority-oriented pay systems, and "non-regular workers," who are employed under different terms. According to that research, non-regular workers receive lower wages and perceive their jobs as less secure⁵.

The present paper further develops M&W's insights by incorporating into the model the positive correlation between job security and wages. It analyzes whether wealthier citizens still prefer higher spending on unemployment insurance policies in this extended setup. Our analysis reveals, two main findings. Firstly, if the CRRA is lower than 1, then citizens' preferences align with the typical M&R ordering, i.e., wealthier citizens prefer less social policy spending. This result was anticipated in M&W's footnote 18, where the authors emphasize the crucial role of assuming a CRRA greater than 1 for their findings. Secondly, and more importantly, our analysis also demonstrates that the conventional M&R result may still hold for a CRRA greater than 1 when job security increases with income. An example illustrates that a CRRA greater than 2, and as high as 6, may be necessary for the wealthy to support higher spending in social insurance policy compared to the poor. Therefore, our paper complements M&W by suggesting that the conditions for the poor to support less unemployment insurance policies than the rich may be less likely to occur than originally thought. Therefore, our paper complements M&W by suggesting that the conditions for the poor to support less unemployment insurance policies than the rich may be less likely to occur than originally thought. Furthermore, it highlights that a reduction in support for welfare policy when inequality increases may not be solely due to the (ex post) targeting of the policy (the employed versus the unemployed citizens), but rather to the overall attitude towards risk in a society. The more risk-averse a society

⁴ See also Faber (2011), Hall et al. (1970) and, Barth and Moene (2012).

⁵ According to Takahashi (2015): "Non-regular workers face significant disparities between their working conditions and those of regular employees. Firstly, many non-regular workers feel that their jobs are not secure. In the Ministry of Health, Labor and Welfare's "General Survey on Diversified Types of Employment" (2010), the percentage of non-regular workers who responded that they were "satisfied" or "somewhat satisfied" with the "security of their employment" was 39.8% in comparison with 58.1% of regular workers. Secondly, there is a significant disparity in wages. The results of the 'Basic Survey on Wage Structure' (2014) by the Ministry of Health, Labour and Welfare reveal that while the average hourly wage of full-time regular employees who work for companies with ten employees or more is 1937.2 yen, the hourly wage for the non-regular workers of such companies is only 1228.8 yen."

is, the more likely the “preference ordering reversal” occurs.

It also underscores the role that changes in overall economic conditions may play in bolstering support for social insurance spending as inequality increases. The paper offers evidence that a shift in the distribution of job security can lead to a change in the preference order for social insurance. Specifically, a society where jobs are relatively stable, and thus the poor are less inclined to support social insurance, may transition to a typical society where the poor demand higher social insurance during an economic crisis.. A parametric example suggests that a society with the same level of risk aversion may adjust its response to increasing inequality based on changes to the distribution of job security.

The primary contribution of the present research is theoretical. However, we also utilize recent Brazilian history to offer analytical evidence of the theoretical findings. Furthermore, our study carries clear and significant policy implications. Contrary to M&W’s conclusions, when society faces an increase in inequality, the incumbent policymaker must not immediately conclude that expenditure on unemployment insurance policies should be reduced. Indeed, if the increase in inequality stems from an economic shock that disproportionately affects poorer citizens, increasing their likelihood of job loss compared to wealthier citizens, then it is more probable that the median voter prefers higher, rather than lower, expenditure in such policies.

The remainder of this paper is organized as follows. Section 2 presents the political economy model and formulates the optimization problem that determines a generic voter’s ex-ante preferred level of expenditure for a social policy, which could be targeted either to employed or unemployed citizens. Section 3 solves this optimization problem for the case of a policy exclusively targeting employed citizens and demonstrates that the typical preference ordering, in which the poor favor more redistribution, holds. Section 4 solves the optimization problem for the case of a policy targeting the unemployed under different assumptions. The solutions highlight the importance of the distribution of unemployment risk in society and citizens’ attitudes towards risk, for preferences to display a preference ordering reversal. Section 5 discusses the role of sudden changes in the economic environment and demonstrates that a preference ordering reversal for the same unemployment policy and within the same society may occur due to an economic shock. Section 6 utilizes recent Brazilian history to present analytical evidence consistent with a switch in societal preference ordering reversal. Finally, section 7 presents the main conclusions of this research and discusses its policy implications.

2. THE POLITICAL ECONOMY MODEL

2.1. THE PRIMITIVES OF THE MODEL

There is a continuum of citizens of mass one and two periods, 0 and 1. In period 0, citizens vote for a policy to be implemented in period 1. At the moment voter i takes his ballot, he holds a job that pays a wage ω_i . The distribution of wages among voters is described by a distribution function⁶ $F(\omega_i)$. The mean wage value is $\omega = \int \omega_i dF_i$ and the maximum wage is $\tilde{\omega}$.

In period 1, citizen i may retain his job or may lose it, resulting in no wage. The likelihood of job retention is contingent upon various factors, including the workings of the economy and on his own characteristics, such as health conditions, accidents, the type of job he holds, or work performance. It is modelled here by a probability $\pi_i \in [0,1]$. Therefore, there is a probability $1 - \pi_i$ that citizen i will lose his job and receive zero wages in period 1⁷. There is no private unemployment insurance available.

The government collects taxes in period 1 and uses the collected resources to finance a public policy. In period 1 all citizens retaining a job pay taxes according to the same tax rate $t \in [0,1]$. There is a deadweight loss of taxation that is modelled here as a function τ that reduces the resources effectively available for public policy. Therefore, employed citizen i with income ω_i pays taxes $t\omega_i$ to the government but the effective amount that becomes available for public policy is $\tau(t)\omega_i$ where τ is a strictly concave twice differentiable function satisfying the following conditions⁸: $\tau(0) = 0$; $\tau'(0) = 1$ (there is no deadweight loss at $t = 0$); there exists $t_{max} < 1$ such that $\tau'(t_{max}) = 0$ (increasing the tax rate above t_{max} will only decrease government revenue⁹).

The total amount effectively collected by the government is used to fund the public policy, which is a lump sum transfer $s\omega$, $s \in [0,1]$, that could be targeted either to the employed citizens or to the unemployed ones. The policy targeting employed citizens is expected to mirror the typical redistribution policies, whereas the policy

⁶ M&W assume that the distribution of wages is log normal. No such assumption is needed in the present paper.

⁷ As explained before, M&W assume that all citizens face the same probability of keeping their jobs, i.e., $\pi_i = \pi, \forall i$. This paper shows that this assumption strongly affects the ordering of agents' preferences for social insurance policy according to their incomes.

⁸ The present paper borrows these assumptions from M&W in order to make the comparison between the two papers clearer. However, the sole effect of these hypotheses is to assure an internal solution for the citizen's preferred policy. An alternative, simpler way to model the deadweight loss of taxation is to apply a linear reduction factor $\rho \in (0,1)$, so that, if a citizen pays $t\omega_i$, only the amount $\rho t\omega_i$ becomes available for funding the public policy. All qualitative results in this paper remain true for the simplified modeling strategy.

⁹ Note that, since τ is strictly concave, it is strictly increasing on $[0, t_{max}]$, the only relevant range of choices for t .

targeting the unemployed is expected to reflect society preferences for social insurance¹⁰.

Let δ be the Kronecker-type indicator function that takes value one if the policy is an insurance to the unemployed and zero if it is a redistribution to the employed citizens. A citizen i has von Neumann-Morgenstern utility function $u(y)$, where y is his net income in period 1, which is a random variable assuming value $y = (1 - t)\omega_i + (1 - \delta)s\omega$ with probability π_i – when he remains employed – and value $w = \delta s\omega$ with probability $1 - \pi_i$ – when he loses his job.¹¹ The utility $u(y)$ is assumed to be a twice continuously differentiable, strictly increasing and strictly concave function.

Therefore, if policy s is implemented in period 1, financed by the tax rate t , citizen i 's expected utility is given below.

$$U_i(t, s) = \pi_i u((1 - t)\omega_i + (1 - \delta)s\omega) + (1 - \pi_i)u(\delta s\omega) \quad (1)$$

Each citizen votes for the size s of the employment policy, knowing the policy type (i.e., $\delta = 1$ or 0), and understanding that the policy will be financed by income taxation. We assume sincere voting, i.e., each citizen votes for the tax rate that maximizes his expected utility, taking into consideration that the collected tax will finance the policy benefits.

2.2. THE EXPECTED GOVERNMENT BUDGET CONSTRAINT

Since citizen i keeps his job with probability π_i , the expected government revenue from taxes is given below.

$$\int \pi_i \tau(t) \omega_i dF_i = \tau(t) \int \pi_i \omega_i dF_i$$

Recall that $\omega = \int \omega_i dF_i$ corresponds to the average¹² income in the economy if there were no unemployment, i.e., in the hypothetical case of full employment. Naturally, $\omega > \int \pi_i \omega_i dF_i$, the average income of the actually employed citizens. Let $\Pi = \frac{\int \pi_i \omega_i dF_i}{\omega} = \int \pi_i \frac{\omega_i}{\omega} dF_i$, then $0 < \Pi < 1$. The parameter Π can be interpreted as the average probability of keeping a job in society, weighted by wage relative to average wage.

¹⁰ The two policy types follow M&W's approach. In addition to these two possible policies, M&W also include a possible mix or the two policies, whereby one part of public resources would be transferred to the employed citizens and another part would be transferred to the unemployed citizens. However, their analysis of that policy is made only when the same amount is transferred to each citizen of each of the two categories, employed and unemployed. Therefore, this is precisely the universal redistribution case. We discuss that case in the Appendix.

¹¹ For simplicity, the model assumes away the possibility of transferring income from period 0 to period 1 and focuses on period 1. In other words, the model assumes that the worker cannot save so that he can consume more if he becomes unemployed.

¹² Here average income and total income are equivalent concepts because the population has mass 1.

Therefore, we can write $\Pi\omega = \int \pi_i \omega_i dF_i$ and the government's revenue can be simply rewritten as $\tau(t)\Pi\omega$.

Let $\bar{\Pi} = \int \pi_i dF_i$ be the non-weighted average probability of job retention. Then, the expected government expenditure is:

$$(1 - \delta) \int \pi_i s \omega dF_i + \delta \int (1 - \pi_i) s \omega dF_i = (1 - \delta)\bar{\Pi}s\omega + \delta(1 - \bar{\Pi})s\omega = [\delta - \bar{\Pi}(2\delta - 1)]s\omega$$

Therefore, the expected budget constraint of the government can be written as follows.

$$\tau(t)\Pi\omega = [\delta - \bar{\Pi}(2\delta - 1)]s\omega$$

Equivalently,

$$s = \frac{\Pi}{\delta - \bar{\Pi}(2\delta - 1)} \tau(t) \quad (2)$$

2.3. A VOTER'S PREFERRED POLICY

Let $\lambda = \lambda(\delta, \Pi, \bar{\Pi}) = \frac{\Pi}{\delta - \bar{\Pi}(2\delta - 1)}$. Then, from expressions (1) and (2) voter i 's maximization problem can be written as below.

$$\max_{t,s} U_i(t, s) = \pi_i u((1 - t)\omega_i + (1 - \delta)s\omega) + (1 - \pi_i)u(\delta s\omega)$$

$$\text{subject to: } s = \lambda\tau(t)$$

Plugging in s into the objective function yields the following reduced maximization problem.

$$\max_t U_i(t) = \pi_i u((1 - t)\omega_i + (1 - \delta)\lambda\tau(t)\omega) + (1 - \pi_i)u(\delta\lambda\tau(t)\omega) \quad (3)$$

Therefore, voter i 's preferred tax policy, t_i , is the tax rate t that solves equation (3). In order to analyze specifically each one of the policies, redistribution and insurance, let us consider separately the cases $\delta = 1$ and $\delta = 0$.

3. PREFERENCES FOR A POLICY TARGETING THE EMPLOYED CITIZENS

Suppose, for didactic purposes, first that the policy targets exclusively the employed citizens. Then $\delta = 0$ and $\lambda = \lambda(0, \Pi, \bar{\Pi}) = \frac{\Pi}{\bar{\Pi}}$. Therefore, voter i 's maximization problem becomes:

$$\max_t U_i(t) = \pi_i u \left((1-t)\omega_i + \frac{\Pi}{\bar{\Pi}} \tau(t)\omega \right) \quad (3')$$

Since u is a strictly increasing function, this maximization problem is equivalent to:

$$\max_t (1-t)\omega_i + \frac{\Pi}{\bar{\Pi}} \tau(t)\omega$$

The solution to that problem is:

$$t_i^*(\omega_i) = (\tau')^{-1} \left(\frac{\bar{\Pi} \omega_i}{\bar{\Pi} \omega} \right)$$

Since $(\tau')^{-1}$ is decreasing, the higher i 's income is, the lower is i 's preferred tax rate.

This result is consistent with M&R and with M&W's Claim 1¹³. Therefore, the present paper supports the argument that, when a policy is typically redistributive, the richer a citizen is, the less spending in that policy he favors. This is, indeed, the traditional preference ordering in society where poorer citizens favor bigger governments and greater intervention in the economy.

However, one may find that such a policy, that would be redistributive but discriminatory against precisely the poorer citizens, i.e., those who lose their jobs, may not be such a reasonable model for real world policy. If one adopts the assumption that redistribution benefits all citizens equally, even the unemployed ones, then it can be proved that if the CRRA is high enough, then citizens with income above average do prefer higher expenditure in that policy as their income increases. This result is related to Claim 3 in M&W and the proofs are detailed in the Appendix.

The divergence between the present paper and M&W appears more clearly in their Claim 2 that refers to the unemployment insurance policy.

4. PREFERENCES FOR A POLICY TARGETING THE UNEMPLOYED CITIZENS

Suppose now that the policy targets exclusively the unemployed citizens. Then $\delta = 1$, $\lambda = \lambda(1, \Pi, \bar{\Pi}) = \frac{\Pi}{1-\bar{\Pi}}$.

Therefore, voter i 's maximization problem becomes:

¹³ Note that in M&W's Claim 1, since $\pi_i \equiv \pi, \forall i$, then $\Pi = \bar{\Pi}$ and those who have below average income prefer higher taxes and those with above average income prefer lower taxes.

$$\max_t U_i(t) = \pi_i u((1-t)\omega_i) + (1-\pi_i)u\left(\frac{\Pi}{1-\bar{\Pi}}\tau(t)\omega\right) \quad (3'')$$

Hence, voter i 's preferred tax rate must satisfy the following first order condition.

$$U'_i(t) = \pi_i(-\omega_i)u'((1-t)\omega_i) + (1-\pi_i)\frac{\Pi}{1-\bar{\Pi}}\tau'(t)\omega u'\left(\frac{\Pi}{1-\bar{\Pi}}\tau(t)\omega\right) = 0$$

That condition can be rewritten as:

$$\frac{\Pi}{1-\bar{\Pi}}\tau'(t)\omega u'\left(\frac{\Pi}{1-\bar{\Pi}}\tau(t)\omega\right) = \frac{\pi_i}{1-\pi_i}\omega_i u'((1-t)\omega_i) \quad (4)$$

Therefore, voter i 's preferred tax policy, t_i , is the tax rate t that solves equation (4).

Note that, in addition to the tax policy t , the left-hand side of equation (4) depends exclusively on global, economy-wide parameters. However, the right-hand side depends on voter i 's own characteristics π_i and ω_i . Our goal is to understand how the preferred policy t_i changes as voter i 's characteristics change without affecting the aggregate parameters of the economy.

Define $h(\pi_i) = \frac{\pi_i}{1-\pi_i}$ and $f(\omega_i) = \omega_i u'((1-t)\omega_i)$. Then, equation (4) can be rewritten as:

$$\frac{\Pi}{1-\bar{\Pi}}\tau'(t)\omega u'\left(\frac{\Pi}{1-\bar{\Pi}}\tau(t)\omega\right) = h(\pi_i)f(\omega_i) \quad (5)$$

This expression makes it clear that the right-hand side of equation (5) may change either due to a change in the voter's job security, π_i , or in the voter's income ω_i , or both parameters. We will analyze different possibilities for those changes, starting with the simpler situation analyzed in M&W's Claim 2.

4.1. THE HOMOGENEOUS JOB SECURITY CASE WITH HIGH RISK AVERSION

Suppose first, in order to replicate M&W's Claim 2, that all citizens face the same probability of being employed, i.e., $\pi_i = \pi, \forall i$. In this case, $\Pi = \bar{\Pi} = \pi$ and $h(\pi_i) = \frac{\pi_i}{1-\pi_i} = \frac{\pi}{1-\pi}, \forall i$.

Therefore, voter i 's first order condition may be rewritten as:

$$\tau'(t)\omega u'\left(\frac{\pi}{1-\pi}\tau(t)\omega\right) = f(\omega_i) \quad (5')$$

Suppose, furthermore, that voters' von Neumann-Morgenstern utility u has (constant) coefficient of relative

risk aversion (CRRA) greater than one. Then, function f is strictly decreasing¹⁴ in ω_i .

Now, suppose there is an increase exclusively in voter i 's wage ω_i , that does not affect the aggregate parameters of the economy π and ω . Then, the right-hand side of equation (5') decreases. Since u is a strictly concave function, u' is strictly decreasing, and it must be the case that the preferred taxation $t_i^* = t(\omega_i)$ increases.

Therefore, the richer the voter, the more he favors unemployment payments. In this case we say that there is a "preference ordering reversal" in the sense that support for public expenditure in welfare policy switches from the typical ordering in which the poorer the citizen is, the more of it he wants, to the reverse ordering in which the poorer a citizen is, the less of it he wants.

Regardless of the preference ordering reversal, the Median Voter Theorem applies, and the policy preferred by the median voter is a Condorcet winner. In particular, if inequality increases and the median voter's income reduces relatively of the mean voter's income, then society as a whole will favor lower spending in the unemployment insurance policy in a voting equilibrium.

This result opposes the traditional M&R outcome and corresponds to Claim 2 in M&W. However, this clear-cut result hinges on two important assumptions: the assumption of homogeneous job security and the assumption that voters' utilities have CRRA greater than one¹⁵.

Next, we explore briefly what happens when the CRRA is lower than 1. In that case, f becomes strictly increasing in ω_i . Then, with a completely symmetric argument, we conclude that the preferred taxation $t_i^* = t(\omega_i)$ decreases with income. Therefore, when voters risk aversion is below 1, then the conventional M&R preference ordering in society is recovered, i.e., the poorer citizens favor higher unemployment benefits.

Next section relaxes the homogeneous job security hypothesis.

4.2. THE HETEROGENEOUS JOB SECURITY CASE

Return now to the general model where a voter i remains employed with probability π_i . Considering the evidence discussed in the introduction¹⁶, assume that $\pi_i = \pi(\omega_i)$ is an increasing function of wage. Then, the function

¹⁴Indeed, $f'(\omega_i) = u'((1-t)\omega_i) + (1-t)\omega_i u''((1-t)\omega_i)$. Therefore, $f'(\omega_i) < 0$ if and only if: $-\frac{(1-t)\omega_i u''((1-t)\omega_i)}{u'((1-t)\omega_i)} = CRRA((1-t)\omega_i) > 1$.

¹⁵M&W make clear the need for a greater than one CRRA is footnote 18. Moreover, the paper highlights in page 495 that the preference ordering reversal depends on the homogeneous job security hypothesis.

¹⁶And also acknowledged in page 495 of M&W: "[...] the probability of being laid-off is higher for low-wage workers".

$h(\pi_i) = h(\pi(\omega_i))$ is itself an increasing function of income. Recall the first order condition (5):

$$\frac{\Pi}{1-\Pi} \tau'(t) \omega u' \left(\frac{\Pi}{1-\Pi} \tau(t) \omega \right) = h(\pi(\omega_i)) f(\omega_i) = \frac{\pi_i}{1-\pi_i} \omega_i u'((1-t)\omega_i) \quad (5)$$

Suppose, first, that voters' utilities have CRRA lower than one. Then, as seen before, $f(\omega_i)$ is an increasing function. Therefore, the right-hand side of (5) increases with income. But then, by a similar argument, we conclude that the preferred taxation $t_i^* = t(\omega_i)$ is decreasing in wage. Therefore, the traditional preference ordering in which poorer citizens favor more public expenditure remains true when job stability is positively correlated with wage.

Suppose now that voters' utilities have CRRA greater than one. Then, the right-hand side of (5) is a product of two functions of wage, one increasing (h) and the other one decreasing (f). The composed effect of an increase in wage is not clear. However, the analysis of the homogeneous job security, where the function h is constant, shows that it is a higher degree of risk aversion that causes the preference ordering reversal: when risk aversion is small (CRRA lower than one), then poorer citizens want more spending in unemployment insurance, whereas when risk aversion is sufficiently high (CRRA higher than 1), then poorer citizens favor less spending in that policy.

Now, the function h bends towards the traditional preference ordering. Therefore, we may expect that still higher degrees of risk aversion will be needed in order to obtain a preference ordering reversal. The following numerical example is compatible with that expectation.

4.3. THE ROLE OF RISK AVERSION: A NUMERICAL EXAMPLE

Consider the following parameterization of the primitives of the model.

Citizens' utilities are given by $u(\omega_i) = \frac{1}{1-R} \omega_i^{1-R}$, $R > 1$. The parameter R is precisely the Arrow-Pratt coefficient of relative risk aversion of the citizen, as it can easily be verified.

Citizens' probabilities of keeping their jobs are given by $\pi_i = \alpha \frac{\omega_i}{\tilde{\omega}}$, where $\tilde{\omega}$ is the highest wage in society and the parameter α , $0 < \alpha < 1$ is the probability of securing the highest paid job, the highest possible value for π_i . Therefore, no job is 100% secure in this society, although the closer the parameter α is to 1, the more secure jobs are in general. Under this parameterization, the right-hand side of equation (5) can be rewritten as below.

$$RHS(\omega_i) = (1-t)^{-R} \frac{\alpha \omega_i^{2-R}}{\tilde{\omega} - \alpha \omega_i}$$

We wish to determine under which conditions $RHS(\omega_i)$ is an increasing function of ω_i and under which conditions it is decreasing. Taking derivatives with respect to ω_i yields:

$$RHS'(\omega_i) = (1-t)^{-R} \alpha \omega_i^{1-R} \frac{(2-R)(\tilde{\omega} - \alpha \omega_i) + \alpha \omega_i}{(\tilde{\omega} - \alpha \omega_i)^2}$$

Therefore, the sign of $RHS'(\omega_i)$ is the sign of $(2-R)(\tilde{\omega} - \alpha \omega_i) + \alpha \omega_i$. Hence, we can easily check that following statements.

(i) If $1 < R < 2$, $RHS(\omega_i)$ is increasing in ω_i and society preferences display the traditional M&R's ordering, so that the richer a citizen is, the less he supports social policies.

(ii) If $R > 2 + \frac{\alpha}{1-\alpha}$, then $RHS(\omega_i)$ is decreasing in ω_i and there is preference ordering reversal in society, so that the richer the citizen is, the more he favors unemployment payments. For example, if $\alpha = 0.8$, i.e., the richest citizen has a probability of 80% of keeping his jobs, then, the richer citizens favor higher unemployment compensations if $R > 6$. If α reduces to 0.5, then it is sufficient that $R > 3$ for that result to hold.

(iii) If $2 < R < 2 + \frac{\alpha}{1-\alpha}$, then there exists $\hat{\omega} = \frac{1-R-2}{\alpha R-1} \tilde{\omega}$ such that:

If $\omega_i < \hat{\omega}$, then $RHS'(\omega_i) < 0$ (locally reversed ordering)

If $\omega_i = \hat{\omega}$, then $RHS'(\omega_i) = 0$.

If $\omega_i > \hat{\omega}$, then $RHS'(\omega_i) > 0$ (locally traditional ordering).

Therefore, for intermediate values of risk aversion, low-income citizens ($\omega_i < \hat{\omega}$) still prefer less public policy as their income increase whereas high-income citizens prefer more public policy as their income increase, i.e., there is preference ordering reversal only for the richer citizens.

In sum, in this simple parameterized model, the higher the agents' relative degree of risk aversion, the more likely it is that wealthier voters will support higher unemployment benefit policies. However, our parameterization suggests that risk aversion in society needs to be quite high, with a CRRA higher than 3 even when there is a 50% probability that a high-income citizen will lose the job, for a preference ordering reversal to occur.

This parameterization also highlights the intricate relationship between the distribution of job security, attitude towards risk, and preference ordering reversal. It suggests that a change in the distribution of job security,

due to an economic crisis for example, may affect how society behaves towards unemployment insurance policy. The next section extends this original analysis to generate further insights on this relationship.

5. THE ROLE OF JOB SECURITY: ECONOMIC SHOCKS AND PREFERENCE-ORDERING REVERSAL

The present model adds to the literature on preferences for public policy the possibility of reversed preference ordering in the sense that poorer citizens prefer less insurance compensation than richer ones. The main rationale for that outcome resides in the risk aversion of agents. Indeed, richer citizens may need higher compensations in order to smooth consumption throughout the different states of nature (employed & unemployed). Therefore, the unemployment risk structure in a society may affect and, at the end of the day, define the ordering of preferences in that society.

In our model, that accounts for risk is the individual probability of job retention, denoted as π_i . Additionally, introducing an economic shock in the model entails altering the distribution of risk $\{\pi_i\}$ in society. The objective of this section is to examine the impact of changes in the distribution of risk $\{\pi_i\}$ on the ordering of the preference for unemployment insurance in society.

5.1. DISTRIBUTION OF RISK AND PREFERENCES FOR REDISTRIBUTION

This section explores the effect of the distribution of risk in society on the preference ordering for unemployment insurance by means of a specific parameterization of our model. Suppose as we did in the previous example, that citizens' utilities are given by $u(\omega_i) = \frac{1}{1-R} \omega_i^{1-R}$, $R > 1$, where R is the common Arrow-Pratt coefficient of relative risk aversion.

Suppose, however, that the risk structure in the economy is given by the more general form $\pi_i(\beta) = \alpha \left(\frac{\omega_i}{\tilde{\omega}}\right)^\beta$, where $\tilde{\omega}$ is the income of the richest citizen and $\beta \geq 0$.

The parameter β reflects the level of risk inequality within society. The extreme case where $\beta = 0$ is represents a homogeneous job security situation, as studied at the beginning of Section 4, where all citizens maintain their job with the same probability α . As β increases, so does risk inequality. Specifically, the ratio of

the expected income of a citizen with income ω_i to the expected income of the wealthiest citizen¹⁷ is given by

$\frac{\pi_i \omega_i}{\bar{\pi} \bar{\omega}} = \frac{\alpha \left(\frac{\omega_i}{\bar{\omega}}\right)^\beta \omega_i}{\alpha \bar{\omega}} = \left(\frac{\omega_i}{\bar{\omega}}\right)^{1+\beta}$, which converges to 0 as β increases. The parameter β represents a shock in the distribution of risk inequality in society. If $\beta = 1$, then there is no shock, and the distribution of risk remains the same before and after the “shock”: $\pi_i(1) = \alpha \frac{\omega_i}{\bar{\omega}} = \pi_i$. A value of $\beta > 1$ indicates a negative shock (economic crisis) that exacerbates risk inequality; and a value of $\beta < 1$ corresponds to a positive shock (sustained growth) that reduces risk inequality in society.

Figure 1 presents a graphic illustration of parameter β 's effect on the distribution of risk. The X-axis displays ex-ante wages, which vary from 0 to $\bar{\omega}$, the highest wage in society. The Y-axis displays the corresponding expected ex-post wages, which vary from 0 to $\alpha \bar{\omega}$. The case $\beta = 1$ corresponds to the absence of shock, so that the original distribution of risk is maintained. For $\beta > 1$ there is an increase in risk inequality and that increase is the more pronounced the higher β is. We interpret that situation as a negative economic shock. Conversely, for $\beta < 1$ there is a decrease in risk inequality, which is the more pronounced the smaller β is. We interpret that situation as a positive economic shock. The extreme case where $\beta = 0$ corresponds to the (theoretic) situation where all agents face the same probability $\pi_i = \alpha$.

Consider now the first order condition (5). Given the current parameterization, we can write its RHS as:

$$RHS(\omega_i) = h(\pi(\omega_i))f(\omega_i) = (1-t)^{-R} \frac{\alpha \omega_i^{1+\beta-R}}{\bar{\omega}^\beta - \alpha \omega_i^\beta}$$

Taking derivatives with respect to y_i yields:

$$RHS'(\omega_i) = (1-t)^{-R} \alpha \omega_i^{\beta-R} \frac{(1+\beta-R)(\bar{\omega}^\beta - \alpha \omega_i^\beta) + \alpha \beta \omega_i^\beta}{(\bar{\omega} - \alpha \omega_i)^2}$$

Therefore, the sign of $RHS'(\omega_i)$ is the same as the sign of $(1+\beta-R)(\bar{\omega}^\beta - \alpha \omega_i^\beta) + \alpha \beta \omega_i^\beta$. Hence:

- (i) If $\beta > R - 1$, then we have the traditional ordering where the richer a citizen is, the less unemployment policy he prefers.
- (ii) If $\beta < (1-\alpha)(R-1)$, then we have the reversed ordering where the richer a citizen is, the more unemployment payments he favors.

¹⁷ A similar expression holds for the comparison between two citizens with respective incomes ω_i and ω_j .

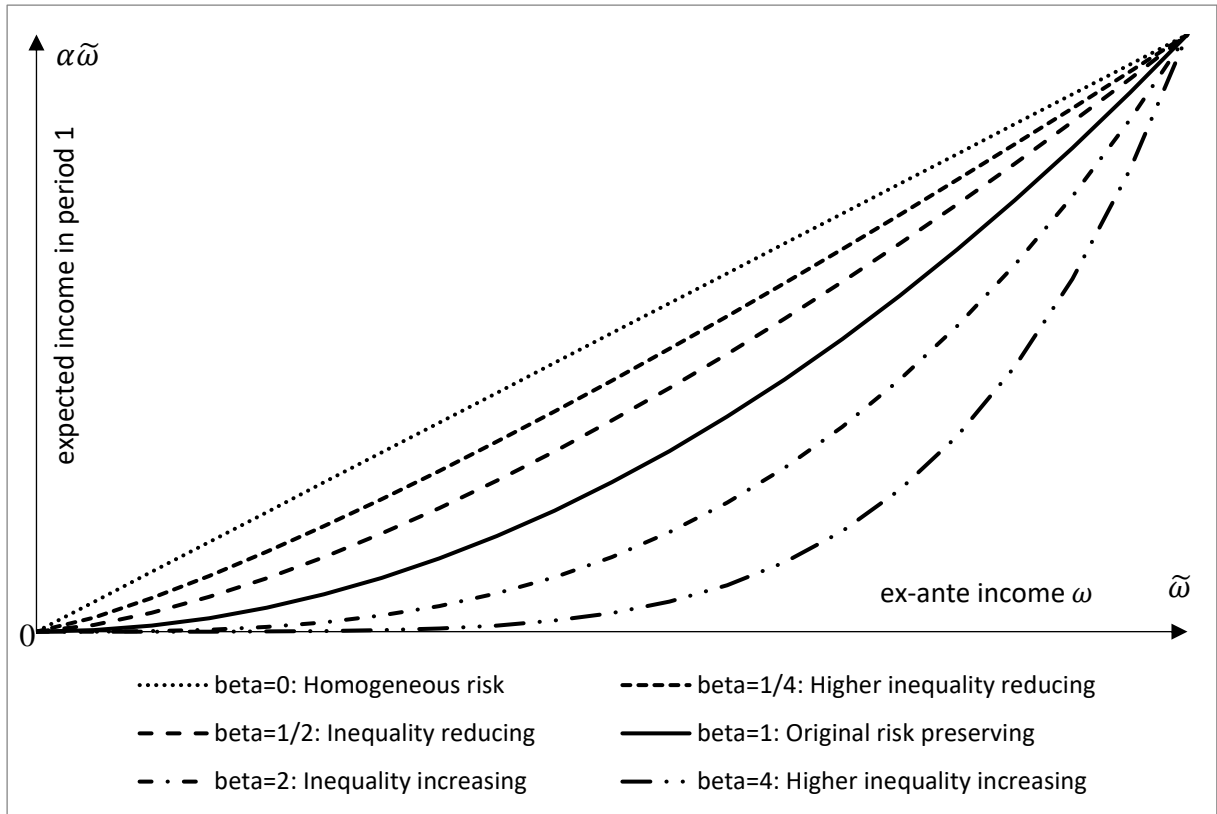
(iii) If $(1 - \alpha)(R - 1) < \beta < R - 1$, then there exists $\hat{\omega} = \left[\frac{1 - R - (1 + \beta)}{\alpha} \right]^{\frac{1}{\beta}} \tilde{\omega}$ such that:

If $\omega_i < \hat{\omega}$, then $RHS'(\omega_i) < 0$ and there are locally reversed preferences.

If $\omega_i = \hat{\omega}$, then $RHS'(\omega_i) = 0$.

If $\omega_i > \hat{\omega}$, then $RHS'(\omega_i) > 0$ and there are locally traditional preferences.

Figure 1: The effect of economic shocks on the distribution of risk in society



Source: Authors' calculations.

Therefore, depending on the magnitude of the shock β , society may exhibit the traditional preference ordering for unemployment policy, the reversed preference ordering or social preferences may not be fully ordered. In this last scenario, the reversed ordering may hold for poorer citizens, while the traditional ordering remains true for richer citizens.

Recall that the higher β is, the more it increases inequality in the unemployment risk “technology”. Consequently, as the distribution of risk in society becomes more unequal, society is more likely to favor higher

expenditure in unemployment benefits, reflecting the traditional preference ordering.

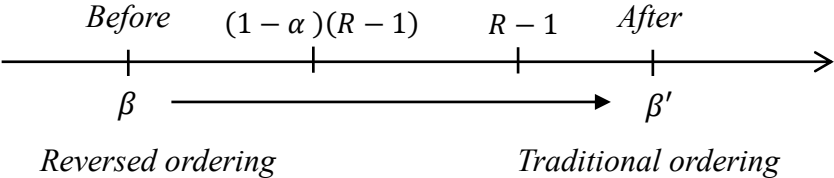
We can now assess the role of economic shocks. Suppose society initially experiences a relatively homogeneous risk situation. This may result from a prolonged period of economic growth that reduces overall unemployment risk, for example. In the present model, this corresponds to smaller values of β compared to R . Then, it is likely we are in case (ii) as described above, wherein society displays a reversed preference ordering, and the median voter favors fewer unemployment insurance benefits than wealthier citizens. In such a society, an increase in inequality that does not alter the distribution of unemployment risk leads the median voter to support lower levels of unemployment insurance.

Suppose, furthermore, that the country is struck by a negative shock, resulting in an increase in β to $\beta' > \beta$. If β' is sufficiently large, it may surpass $R - 1$, causing society to revert to the traditional preference ordering. In this scenario, the median voter values increased government spending in unemployment insurance. Consequently, in such a society, a subsequent increase in inequality that does not alter the distribution of unemployment risk leads the median voter to prefer higher spending in unemployment policy.

Hence, a negative shock could lead to a preference reversal, whereby wealthier citizens previously favored higher unemployment insurance, but after the shock, support for unemployment insurance shifts to poorer citizens. Figure 2 below depicts this scenario.

It's worth noting that a symmetrical situation could occur in the case of a positive shock. In such instances, economic recovery might result in a reversal from a scenario where poorer citizens were the strongest advocates for unemployment insurance to one where wealthier citizens become the primary supporters.

Figure 2: The effect of negative economic shocks on preference for redistribution ordering



Source: Authors' calculations.

Finally, it is also possible that the shock is not sufficiently impactful to induce a preference ordering reversal. Hence, in addition to examining preference orderings at a specific point in time, investigating the dynamics of preference ordering becomes an empirical research concern. To illustrate these static and dynamic issues, the

subsequent sections delve into the analysis of preference-ordering dynamics using data from LAPOP's social values surveys, focusing on the case of Brazil.

6. AN ILLUSTRATION: THE 2008 WORLD FINANCIAL CRISIS, AND A POTENTIAL PREFERENCE-ORDERING REVERSAL IN BRAZIL

This section examines a series of public opinion surveys conducted by the Latin American Public Opinion Project (LAPOP) at Vanderbilt University. The LAPOP conducts the Americas Barometer survey every two years, covering 26 nations across North, Central, and South America, as well as the Caribbean, including Brazil. Nine waves of surveys have been conducted in Brazil, spanning the years 2006, 2008, 2010, 2012, 2014, 2016/17, 2018/19, 2021 and 2023. Our aim is to examine evidence of a preference ordering reversal surrounding the 2008 Financial Crisis. Therefore, we concentrate our analysis on the surveys conducted in 2006 and 2014.

To effectively demonstrate the theoretical findings of this paper, we require specific questions regarding the trade-off between taxation and unemployment insurance policy. An appropriate question would be: 'Are you willing to pay higher taxes to increase the benefits of public unemployment insurance?' Conversely, 'Are you willing to reduce the benefits of public unemployment insurance to lower tax payments?' Unfortunately, we did not find such specific questions in the surveys. However, similar questions on more general redistribution policies were present in the 2006 and 2014 surveys, allowing us to test for a possible preference ordering reversal. As demonstrated in the Appendix, policy preference ordering reversal may also occur in the case of pure redistribution when it targets the entire population rather than only employed citizens. Therefore, this section provides empirical evidence of preference ordering reversal in society's preference for redistribution, rather than within the context of unemployment policy.

6.1. THE DEPENDENT VARIABLE

The 2006 wave includes a unique question (PR7) that clarifies the tax-public policy trade-off:

“The government should provide less public services, such as health and education, in order to reduce taxes.”

Respondents could choose from five categorical answers, ranging from “totally disagree” to “totally agree”.

Furthermore, the 2014 wave contains exactly one question (TD5) that fits our criterion:

“Would you be willing to pay more taxes than you currently so that these taxes would be used to distribute to the poorer citizens?”

Respondents could select from seven categorical answers, ranging from “totally disagree” to “totally agree”.

All the dependent variables were recoded so that higher values indicate greater support for redistribution. Therefore, for the 2006 dependent variable, the highest possible choice, 5, indicates “totally disagree”, while for the 2014 dependent variable, the highest possible choice, 7, indicates “totally agree”. Additionally, the observations with “I don’t know” or no answer were removed from the corresponding sample.

6.2. THE MAIN EXPLANATORY VARIABLES

Income: The original income variable categorizes respondents based on their household income brackets. Several approaches can be used to construct our income variable. The simplest approach involves using category classification (e.g., assigning 1 for the lowest income bracket, 2 for the next lowest, and so on). A more precise method involves using the average income within each bracket to represent the income of the corresponding respondent's household. An even more precise approach adjusts for household size, separating adults from children, and utilizes modified equivalence scales suggested by the OECD¹⁸. Logarithm versions of the variable can also be used for the scaled income variable. The results from all three approaches were similar. Here, we present the results from the third approach. Regression analyses based on category classification can be provided upon request to the authors.

The calculation of scales was conducted according to the following rule: each adult in a multi-person household was counted as 0.75, and each child as 0.3. For example, a family consisting of two adults and two children would have a scale of $2 \times 0.75 + 2 \times 0.3 = 2.1$. Household income was then divided by this scale, representing a more precise calculation than the usual "per capita" approach.

To construct the scales, we utilized the following questions from the surveys:

For the 2006 survey: 'Including you, how many people live in your household?' (VS14) and 'How many children under 18 do you have?' (VS15).

For the 2014 survey: 'How many people currently live in your home?' (Q12C) and 'How many children under

¹⁸ As explained in “What are equivalence scales?” available in <https://www.oecd.org/eco/growth/OECD-Note-EquivalenceScales.pdf>, accessed January 17, 2017

13 live in your home?' (Q12Bn).

It's important to note that these calculations may not be precise for at least two reasons. Firstly, in the 2006 survey, some children under 18 may not reside in the respondent's home. Secondly, the 2014 survey only considers children under 13. However, we believe these approximations reasonably reflect household composition, and the robustness of the results to other income adjustments reinforces our confidence.

Our expectation is that there exists a negative correlation between the income variable and the dependent variable if preferences adhere to the traditional M&R (1981) ordering. Conversely, we anticipate a negative correlation between these variables in the event of a preference ordering reversal.

6.3. THE ADDITIONAL CONTROL VARIABLES

A variety of additional control variables could potentially enhance our understanding of preferences for redistribution based on extensions of this paper's model as well as numerous empirical studies on the topic. Potential extensions, suggested respectively by John Nash Jr. and Kanako Yamaoka, include the effects of trust in the government and left-right ideology. These extensions are available upon request. For further insights on the role of trust in government, see Holland (2018). Additionally, a selection of relevant empirical studies includes the works of Alesina and Giuliano (2009); Alesina et al. (2018); Beckman and Zheng (2007); Benabou and Ok (2001); Cruces et al. (2006); Dion and Birchfield (2010); Holland (2018); Luebker (2014); Lupu and Pontusson (2011); Page and Goldstein (2016); and Piketty (1995).

Since the objective of this section is not to present a fully developed empirical study of the determinants of preferences for redistribution, but rather to illustrate a possible preference reversal for the case of Brazil, we will not delve into great detail or provide extensive commentary on these additional variables. However, they are briefly described below.

The additional variables include Gender, Age, Years of schooling, Participation in the Bolsa Família conditional cash transfer (CCT) program, and religiosity of the respondent, with religiosity measured as the frequency of mass attendance. Geographical regions and the size of the municipality where the respondent resides are also considered. Brazil is divided into five major regions: northern, northeastern, central-western, southeastern, and southern, with the southeastern region taken as the base region to avoid collinearity.

Trust in Brazilian institutions, satisfaction with the functioning of democracy, satisfaction with the performance of the Government and the President, as well as proxies for left and right ideologies, are also included.

For example, Question ROS1 in the 2014 survey assesses agreement with the statement: 'The Brazilian state, rather than the private sector, should be the owner of most important companies and industries in the country,' serving as a proxy for left ideology. Conversely, Question PR9 in the 2006 survey evaluates agreement with: 'The less the government intervenes in the economy, the better,' acting as a proxy for right ideology.

Political interest and political sophistication (knowledge), indicated by interest in politics and knowledge about the length of the presidential term, along with general support for democracy, are considered. Additionally, the significance of the 2014 regression increased with the inclusion of a composite variable consisting of multiplying the income variable with the southern region. Therefore, we added this variable to both regressions.

6.4. THE ANALYTIC RESULTS: PREFERENCE-ORDERING REVERSAL AND THE 2013 STREET PROTESTS?

Given that the dependent variable changes in each wave, we conducted two separate and independent regressions, one for the year 2006 and another for the year 2014. Since the number of categories of the dependent variable varied from five to seven, we opted to run robust ordinary least square (OLS) regressions. We also conducted ordered logit regressions, which yielded similar results. However, the lack of overall support for the proportional odds ratio hypothesis led us to maintain the OLS approach. The logit regressions are available upon request to the authors. The corresponding results are presented in Table 1.

The regressions reveal a clear dynamic shift in preference ordering. In the initial year of 2006, we observe a positive correlation between the dependent variable and income, significant at the 5% level. This supports the hypothesis of the effect of a positive economic environment: as Brazil experienced positive economic growth, poorer citizens appeared to perceive less need for extensive provision of public goods, thus favoring lower taxes. Notably, Brazilian GDP growth from 2000 to 2008 averaged 3.78%, reaching 3.96% in 2006.

However, the country was severely affected by the international financial crisis in 2009, leading to null GDP growth. Despite this, the Lula government implemented measures to artificially stimulate the economy, such as reducing taxes on consumption goods and increasing government expenditure, resulting in a 7.5% growth in 2010. This level of GDP growth had not been seen in the country since the 1970s, leading many Brazilians to believe that the international crisis had not impacted the country. However, in subsequent years, the real effects of the crisis became evident: from 2011 to 2014, Brazilian GDP growth plummeted abruptly to 1.57%, with a mere 0.504% growth recorded in 2014.

Table 1 – Income, economic confidence, economic shock and preference for redistribution:

Robust OLS regressions for Brazil, 2006 and 2014

Year	2006	2014
<i>The main explanatory variables</i>		
Income (log, scaled)	0.0673 **	-0.2035 **
<i>The basic controls</i>		
Male (gender)	-0.0083	0.1045
Age	-0.0010	-0.0142 ***
Years of schooling	0.0141	-0.0309 *
Bolsafamilia CCT recipient	0.1089 **	0.4812 ***
Religiosity (Mass attendance)	-0.0304	0.0481
<i>The regional variables</i>		
Northern region	0.1359	-0.1721
Northeastern region	0.3750 ***	0.6404 ***
Center-western region	0.1373	0.6139 ***
Southeastern region (reference)		
Southern region	0.5115	-4.7930 ***
Income*Southern region	0.0054	0.6004 ***
Municipality size	-0.0410	-0.0100
<i>The trust in institutions variables</i>		
Trust in Brazilian institutions	-0.0409	0.1395 **
Satisfied with workings of democracy	-0.1357 **	-0.0837
<i>The satisfaction with the government</i>		
Government performance evaluation	-0.0379	0.1621 ***
President's performance evaluation	-0.0546	-0.0857
<i>The ideology variables</i>		
Leftist ideology		0.0398
Rightist ideology	-0.2369 ***	
<i>Political participation</i>		
Interest in politics	0.0902 **	-0.1039
Knows length Presidential term	0.222	0.4964 ***
<i>Support for democracy</i>		
Supports democracy	-0.0353	-0.0287
Constant	4.9300 ***	4.0752 ***
R ²	14.68	13.96
Number of observations	983	1289

*: Statistically significant at the 10% level

**: Statistically significant at the 5% level

***: Statistically significant at the 1% level

Source: Authors' calculations.

The surveys conducted in 2014 reflect the impact of these economic fluctuations on preferences for redistribution. The regressions now reveal a traditional negative correlation between the dependent variable and income, consistent with the findings of M&R (1981). In other words, the poorer a citizen is, the more they favor redistribution. This result, significant at the 5% level for the 2014 regression, suggests a preference-ordering reversal, possibly due to increased awareness among poorer citizens of the severity of the global financial crisis and its detrimental effects on the Brazilian economy, leading to greater support for government programs.

However, despite efforts to stimulate the economy, the federal government may not have been able to improve public service standards as desired by Brazilians. This mismatch between citizens, who increasingly demanded better public services, and the government, which had spent all its fiscal surpluses to engineer the artificial growth spurt of 2010, may have contributed to over a million Brazilians taking to the streets during the months of June and July 2013 to protest against rising public transportation costs and the low quality of public services; see Bugarin and Silva (2014) for details of the 2013 street protests.

In relation to the additional control variables, there is notable support for redistribution among recipients of the Bolsa Família Conditional Cash Transfer program, as well as among citizens residing in the economically disadvantaged Northeastern region. Additionally, support for redistribution appears to be stronger among politically sophisticated individuals, whether they are more politically engaged (in 2006) or possess greater political knowledge (such as awareness of the presidential term's length, in 2014). Conversely, older or more educated individuals (in 2014), those with right-leaning political orientations (in 2006), and citizens satisfied with the functioning of democracy in the country (in 2006) tended to favor smaller governments.

As a disclaimer, it's important to note that the purpose of this section is to provide a potential illustration of the impact of an economic shock on a society's preference for redistribution ordering. However, it's crucial to recognize that the econometric study presented here is incomplete, as it does not account for various factors, including unobservable beliefs, risk aversion, and measurement errors. Therefore, the results should be interpreted with caution, and further empirical studies are warranted to rigorously test the hypothesis of social preference ordering reversal proposed by the present model¹⁹.

7. CONCLUSION

The present article aims to provide a theoretical understanding of the complex relationship between attitudes towards risk, employment security, economic shocks, and preferences for government unemployment insurance.

Our theoretical analysis highlights that this relationship is multifaceted and primarily hinges on two aspects of individual preferences: the individual probability of retaining one's job and the degree of risk aversion.

Under the common assumption that the probability of retaining one's job is positively linked to income, in a society with low risk aversion (i.e., a coefficient of relative risk aversion, CRRA, below 1, as often posited by the labor literature), preferences for public unemployment insurance align with the typical redistribution model

¹⁹ The authors are grateful to an anonymous referee for pointing out these shortcomings of the empirical study.

proposed by Meltzer and Richard (1983). In this scenario, the poorer a citizen is, the more they tend to favor redistribution.

Conversely, in a context characterized by higher risk aversion (i.e., CRRA above 1, as occasionally suggested in the finance literature), societal preference ordering may shift. In such cases, it's the richer citizens who tend to support higher expenditure in unemployment insurance policy, a phenomenon compatible with Claim 2 in Moene and Wallerstein (2003). We term this scenario a "preference ordering reversal." However, contrary to the assertions of that paper, achieving a preference reversal requires more than simply having a CRRA higher than 1. Depending on the relationship between wage and the probability of job loss in society, the CRRA necessary to induce a preference reversal may be as high as 6, even in the context of a pure unemployment insurance policy, where welfare policy exclusively targets the unemployed.

Therefore, this paper challenges Karl Moene and Michael Wallerstein's argument that suggests that it is who the policy is targeting (either the employed or the unemployed) that determines whether an increase in inequality that preserves mean income will imply higher or lower social support for welfare policy. We argue that support for unemployment policy is determined not by who the policy targets, but rather by the degree of risk aversion and the distribution of unemployment risk in society.

This interpretation naturally leads to inquiry into how a change in the distribution of job security, due to a sudden economic shock, for example, may affect society's preference ordering for unemployment policy. This paper shows that society may display a switch in citizens' preference ordering due to unexpected external shocks.

This research holds significant policy implications. A successful government should strive to enact policies that align with the preferences of a broad spectrum of constituents, often represented by the median voter in modern political economy discourse. However, it's crucial to recognize that the median voter's preferences are not fixed but rather dynamic, fluctuating in response to various economic conditions. For instance, economic shocks, such as those that decrease overall income and job security or economic expansions that increase them, can significantly alter the median voter's stance on social policies.

Consider, for example, a scenario where economic inequality surges due to a prolonged period of economic growth. In such cases, reactionary measures like expanding unemployment policies may not resonate with the median voter's preference, potentially diminishing overall support. Conversely, during times of heightened economic inequality spurred by sudden economic crises, proactive steps like augmenting funding for unemployment policies may find favor among the populace, including the median voter.

This policy implication gains particular relevance in the current era, marked by the global upheaval caused by the COVID-19 pandemic. It underscores the necessity for tailored responses to crises, acknowledging the diversity of preference orderings across different societies. Blanket increases in social policy expenditure may not universally address the multifaceted challenges posed by the pandemic.

Furthermore, avenues for extending this research abound. Future studies could explore the impact of unemployment policies contingent on past wages and delve into the potential implications of a private unemployment insurance system. Additionally, more comprehensive models could factor in the presence of assets alongside labor income, as well as the correlation between unemployment risk and asset return volatility. Understanding these dynamics can provide deeper insights into how various segments of society perceive and respond to government interventions in times of economic uncertainty.

Fundamentally, future research could delve into the combined impact of both pure redistribution and unemployment policy. Considering that the poor stand to benefit most from a pure redistribution policy that allocates equal resources to all members of society, the presence of such a universal redistribution scheme might diminish the inclination of impoverished citizens towards unemployment policies. This dynamic could potentially heighten the probability of preference ordering reversal. Exploring these extensions could yield valuable insights and is recommended for future investigation.

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