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Adding Another Level: Individual Responses to Globalization and Government Welfare Policies

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Abstract: For the last decade, numerous scholarly works have centered on the question of whether states increase their spending on welfare to cushion their citizens from losses arising from globalization -- the compensation hypothesis. However, research has so far overwhelmingly focused either on the macro or the micro level of the proposed relationship. In this paper we go one step further by explicitly accounting for the combination of responses of individual citizens and country-specific characteristics in a hierarchical model framework. We first analyze whether individuals living in countries that face relatively more pressure from globalization do indeed show a more negative attitude towards increased internationalization. In a second step, we then shed light on the question of whether countries with more extensive welfare policies are successful in shielding their citizenry from the winds of globalization. In contrast to theoretical expectations, our results do not lend support to the conjecture that increasing globalization causes concern to individuals in European countries. However, as predicted by standard trade theory, those individuals who are winning from trade do indeed perceive globalization as something positive especially if they live in very open countries. As far as the nexus between welfare policies and individual contentment is concerned, our results suggest that if nation states compensate their citizens they become indeed more likely to see globalization in a positive light.



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Introduction

With the recent global financial crisis and the collapse of numerous banks, the global financial interlinkages, considered for so many years as a means to achieve prosperity, have been increasingly questioned. Furthermore, the “real” consequences of this virtual speculative disaster on national economies still have not been fully felt, let alone understood. However, not only financial markets without supervision are in question but globalization as a whole. Recent headlines full of gloomy messages depicting the specter of economic nationalism rising again (Economist 2009) with protectionism cited as an option for governments to preserve jobs and because workers are demanding help. These developments seem to be in line with Rodrik (1997, p.6) predicting that: “the domestic consensus in favor of open markets will ultimately erode to a point where a generalized resurgence of protectionism becomes a serious possibility”. Recent developments make new insights within research on the globalization – welfare nexus ever more important and topical.

The scholarly literature on the relationship between globalization and increased government spending to compensate losers of the process is manifold (Rodrik 1998; Burgoon 2001; Pierson 2001; Genschel 2004; Hays et al. 2005; Down 2007; Walter 2010). However, conclusive evidence on whether the link between an increase in trade levels and an increase in government spending does reflect a causal relationship has not yet been reached (Hays 2009). This is true for both the macro and the micro level of the analysis. Whereas early studies mostly focused on finding a robust relationship between country level globalization and government spending, the more recent literature has turned to individuals’ perception on globalization (Hainmueller & Hiscox 2006). Although standard trade models give some guidance as to which individuals should embrace more or less protectionism, the results of recent empirical studies are less than conclusive (Hays et al. 2005; Hays 2009; Mayda & Rodrik 2005).

Hence this article intends to add to both strands of the literature – macro and micro level – by analyzing the conditional effect of country level globalization and welfare spending on individuals’ perception of globalization. Following the general idea of the compensation hypothesis, governments should compensate losers of globalization since they feel threatened by globalization. Implicit in this logic is the idea that increasing levels of globalization can cause negative sentiments towards globalization since an increase in globalization makes the world less predictable and secure and may result in jobs being moved etc. Furthermore, it is assumed that governments can increase support to

globalization by providing a safety net in the form of a more generous welfare state. In this paper we offer an additional test of this idea by linking country level globalization and welfare spending to individual perceptions of globalization. We thus make the effect of actual globalization/welfare generosity conditional on those individual level characteristics highlighted by international trade theory. This means that we hypothesize globalization winners (more educated people and capital owners) to react differently to higher levels of globalization/welfare spending compared with globalization losers (less educated people and people working in professions that are likely to be threatened by globalization such as manual workers). Thus the aim of this article is to understand how country level globalization as well as country level compensation feed back to individual perceptions given individuals characteristics such as income, education and employment.

Our paper therefore makes several contributions: First, as stated above, we explicitly focus on the conditional effects implicit in the assumptions of the compensation hypothesis by testing the macro-micro links. Substantively, we assess whether a) people in countries that are more open to globalization do in fact perceive a higher external risk (Rodrik 1998). And b), we test whether citizens whose governments have indeed provided compensation in the form of a bigger welfare state perceive globalization as less threatening. On the basis of these context-conditional effects (level of actual globalization / compensation granted by the government), we then go on to evaluate whether these individual perceptions of globalization are conditional on the individuals being winners or losers of globalization. Importantly, both of these macro-micro links are not a test of the compensation hypothesis as a whole but rather a test of implications of the causal claims made within this framework. From the decision to model the links between the macro and the micro level follows our second contribution. To arrive at more thorough tests of these assumptions, we improve on standard literature in this field by employing a hierarchical estimation strategy to adequately model influences from different levels of analysis (Steenbergen & Jones 2002; Gelman & Hill 2007). Third, we empirically focus our analysis on a question that is directly aiming at the effects of globalization whereas most of the survey questions employed by the literature have so far relied on questions regarding governments' use of protectionism, which, however, is not an option specified within the compensation hypothesis.¹ Furthermore, our question allows us

¹In reality, governments can react in many different ways to protect their citizens from globalization. They could subsidize the national economy, they could increase tariffs or, which is the mechanism proposed by the compensation hypothesis, provide a strong social safety net. In our view, lowering tariffs as implied by asking for individuals' perception on

to distinguish between individuals' reactions towards globalization on the personal and the country level.

Looking at the first macro-micro link, we find that actual globalization does not generally increase the likelihood of seeing globalization as something positive. Furthermore – and in line with standard trade theory – we find that capital owners, highly educated individuals, as well as people working in professions that should profit from globalization tend to have a more positive attitude towards trade. We then test the second macro-micro link assessing whether governments that have provided for compensation were successful in making their citizens less anxious about globalization. Here, our analysis arrives at mixed results depending on the respective measure of welfare state generosity. Finally, if we go one step further and test whether the perception of globalization by those who are winning from trade is indeed contingent on the actual level of globalization and welfare state generosity in the respective country, we get some support for our hypothesis that individuals who profit from globalization react differently to globalization than individuals who do not profit as much from globalization. A high level of actual globalization reinforces the already high likelihood that a trade winner sees globalization as something positive. Interestingly, a high level of globalization does not reinforce the more negative attitude of trade losers to become even more negative. Concerning the interaction between compensation and being a winner or a loser of globalization shows that for both winners and loser living in a country with a strong social safety net increases their likelihood of thinking of globalization as something positive.

In our view, our study concentrates on an important task not only from a scholarly perspective, but also with respect to policy recommendations. It is especially important for governments to know whether globalization (i.e. openness to trade and capital markets) really has increased fears among the population; and second whether compensation mechanisms really did help by making people less fearful of globalization. Overall, however, our results provide some support for the conditional effects implicit in the compensation hypothesis and regarding standard trade theory.

trade liberalization therefore does not capture the logic of the compensation hypothesis. Which is way we consider it important to focus on a question that asks for individual perceptions' on globalization instead.

The compensation hypothesis

The literature on globalization's effect on welfare spending can be traced back to Cameron (1978) who was the first to introduce a positive effect of trade openness on welfare spending. Thereafter, several authors have theoretically developed this relationship further and it became known as the compensation hypothesis (e.g. Garrett 1995; Garrett & Mitchell 2001; Rodrik 1998). More precisely, the hypothesis focuses on the influence of globalization on the demand side of the political market. It is argued that governments increase their public spending in order to compensate their people for the perceived risks due to globalization.

Figure 1 depicts the chain of argumentation underlying most of the articles dealing with the compensation hypothesis (Baker 2008; Boix 2004; Hays et al. 2005; Scheve & Slaughter 2004; Walter 2010). In this representation of the compensation hypothesis, increased levels of globalization on the national level are supposed to increase either economic volatility or induce structural adjustments to the economy. Both of these might trigger economic insecurity and fears of job losses for individuals who are not equipped with either the comparatively advantaged factors of production or work in disadvantaged sectors of the economy (depending on which standard trade theory is considered). These economic insecurities are then assumed to translate into preferences for social protection and compensation. These preferences are aggregated and carried over to the government through parties, interest groups, elections etc., and manifest themselves in a more compensatory welfare state policy.²

Figure 1 about here

The conjecture that there is a link between increased globalization and higher social spending has been tested as well as contested by various authors. A positive relationship between openness and government size is supported by the findings of Hicks & Swank (1992); Huber et al. (1993); Rodrik (1998), and Swank (1998). In contrast, Iversen & Cusack (2000) argue that the expansion of the welfare state in developed democracies is not due to globalization or external risk but rather to internal risk factors. They find that the observed growth in government consumption and transfers can be explained as a function of the severity of employment losses in traditional sectors, i.e. internal risk, and not globalization or external risk. Coming from a

²For a comprehensive account of the theoretical micro-relationships the compensation hypothesis consists of, see Walter (2010).

different direction but also sceptical about the causal link between globalization and welfare spending, Down (2007) tests the economic volatility link and finds that trade exposure does not affect economic volatility in a systematic manner such that it could have caused significant movements in government welfare spending.

However, in the scholarly literature on the globalization–welfare nexus, debate has not only centered on alternative explanations for welfare state expansion. Taking Garrett & Mitchell (2001)’s article, in which the authors do not find support for the compensation hypothesis, as an example, Plümper et al. (2005) and Kittel & Winner (2005) show that the results are sensitive to econometric model specifications. Their re-analyses both arrive at similar conclusions as the ones drawn by Iversen & Cusack (2000); namely that the internal economic environment is much more relevant to welfare spending as opposed to globalization forces or the partisan composition of the government. As a consequence not only of methodological criticism inherent in many of these studies but mostly because they are solely testing a macro-level relationship, a point excellently shown by Hays (2009)’s re-analysis of Iversen & Cusack (2000), one should be careful when drawing inferences from these studies.

Compensation hypothesis at the micro-level

The assumptions made within this chain of argument have been largely taken for granted in research looking at the macro level of the relationship. It therefore stays speculative when Rodrik (1998) observes that “[s]ocieties *seem* to demand (and receive) an expanded government role as the price for accepting larger doses of external risk” (Rodrik 1998, p.998, emphasis added). In recent years, however, a vivid research area has evolved that takes a closer look at the micro-level foundations of the relationship between globalization and the welfare state (Hays et al. 2005; Hays 2009; Mayda & Rodrik 2005; Mansfield & Mutz 2009; Rehm 2009; Scheve & Slaughter 2001, 2004; Walter 2010). These studies have all tested different parts of the compensation hypothesis including evidence from lower levels than the nation-state and serve as a starting point for our own research.

Scheve & Slaughter (2004) are among the few to explicitly test the relationship whereby globalization causes increased economic insecurity to workers. Although they emphasize a different notion of globalization by using foreign direct investment (FDI) instead of trade, their panel study can show that FDI has one of the largest substantive

effects in accounting for the within-individual variation in economic insecurity as well as between industries. Walter (2010) arrives at the same conclusion when using FDI to test the link between globalization and economic insecurity in Switzerland. She further finds support for the causal micro links going from increased globalization to compensation in the Swiss context.

The studies that are closest to our own research are the ones by Mayda & Rodrik (2005) and Hays (2009). Mayda & Rodrik (2005) seek to explain individuals' attitude towards trade by using economic as well as non-economic individual level factors. They find that individuals in sectors with a comparative disadvantage have a negative attitude towards trade whereas individuals with better economic status or those in non-traded sectors are pro-trade.

In a similar vein, Hays (2009) tests the embedded liberalism claim. He first shows that individuals who work in the tradable industry and particularly in the import competing industry, as well as the unemployed or individuals with low education levels, are opposed to free trade. Then, in a second step, he shows that these negative attitudes against trade can be mitigated through compensation in the form of unemployment programs and also government programs.

We add to the existing literature in three ways. First and in contrast to all of the above micro-level studies, which use survey questions referring to free trade or protectionism as their indicators, we try to directly get at survey respondents' views on globalization. This is important since we think that it is globalization as a concept that lies at the heart of arguments concerning the compensation hypothesis and not trade protection. Second, we analyze the reaction of individuals towards globalization conditional on the actual level of globalization in their country and the actual level of compensation granted. The motivation for focusing on these context-conditional effects comes from the observation that only a closer look reveals some open theoretical questions concerning the - at first sight - intuitively plausible link between globalization and welfare state spending. Do citizens actually perceive globalization; do they see it as a threat and associate job insecurity with it? Which actions do citizens really take to improve their situation and why would they not demand protectionism as a direct policy reaction to globalization but demand state-sponsored redistribution instead (Baker 2008)? This last point is especially important, as understanding the implications of certain policies on personal livelihood seems to exceed most citizens' understanding of politics as research on the general public's knowledge has shown (Carpini & Keeter 1993, 1997; Galston 2001). Third and more importantly, we then also take into account individual characteristics (e.g. being a winner or loser

of globalization following standard trade theory) that are supposed to impact differently on an individual's preference towards globalization depending on the given context (actual globalization / generosity of the welfare state).

Figure 2 depicts again the chain of argumentation underlying most of the articles dealing with the compensation hypothesis (outside arrows) as well as the arguments tested in this article (inside arrows), where hypotheses 1 and 2 look at the context-conditionality of globalization preferences. Hypotheses 3a and b then interact the given context (actual globalization / generosity of the welfare state) with individual characteristics to determine an individual's globalization preference.

Figure 2 about here

Context-conditionality of globalization preferences

Actual globalization and the attitude towards globalization

Our research starts with a first step clarifying the question of whether people actually perceive globalization as threatening or negative. The point here is that for the compensation hypothesis to hold, people need to perceive globalization as negatively; otherwise they will not demand compensation because of globalization and the whole argumentation underlying this hypothesis crumbles. Hence individuals' attitude towards globalization should be contingent on the actual level of globalization. Controlling for individual level factors, we test whether individual attitudes toward globalization differ with various measures of actual globalization at the country level (e.g. trade openness). We expect that if the compensation hypothesis holds, people in more open economies should exhibit a relatively more negative attitude toward globalization. Such an awareness of globalization should even happen before people mentally make the connection from increased globalization to increased economic uncertainty or to increased attitudes towards redistribution (Rehm 2009; Walter 2010). The rationale behind this is that if people do not perceive more globalization as bad why should they react to globalization by demanding compensation at all? We therefore stipulate that

Hypothesis 1: *The more economically open a country is, the more negative the attitude of its citizens towards globalization.*

Compensation and the Attitude towards Globalization (Embedded Liberalism)

The second relationship assumed within the compensation hypothesis is that people should aggregate their preferences for compensation through elections (c.f. Walter 2010) or other forms of aggregation, and governments are then supposed to react to citizen demands for more security from globalization. However, as already hinted above, it is not clear from theory why certain kinds of compensation are demanded and not others.³ Furthermore, the mechanism by which people actually aggregate their welfare state preferences – e.g. through elections, parties or interest groups – and how these are translated into policies is still an ambiguous and understudied area in the context of the compensation hypothesis.⁴ Hence with regard to the micro-macro link, (Coleman 1990)’s theory lacks specificity.

However, if we assume the hypothesis holds, it would only be rational for governments to compensate citizens if compensation really is perceived by citizens as a cushion against globalization. It follows that people indeed need to make the connection between welfare spending and globalization, otherwise why should a government bother to compensate? This implication of the compensation hypothesis assumes that people can actually link an increase in welfare spending that was brought forward by the government to a better individual position vis-a-vis globalization. Consequently they should react in a manner proposed by the embedded liberalism argument (Ruggie 1982; Hays 2009) and should accordingly acknowledge more welfare spending with a more positive attitude towards globalization (arrow 4). Hence, we test whether instruments of welfare spending matter for citizens as far as globalization fears are concerned. Hays et al. (2005) and Hays (2009) explicitly test this claim in their work and find that ”government programs designed to protect individuals harmed by imports reduce opposition to free trade” (Hays et al. 2005, p.473). This result is robust in their micro-level model as well as their separate macro-level specification.

In our hierarchical framework, in which we look at the context in which people are embedded, we now want to know whether individual level attitudes toward globalization vary with measures of government spending at the country level. Since we believe that the granting of benefits for losers of globalization does help people to view globalization as a necessary and good development and in line with the claims

³For an empirical treatment of this subject, see Hays (2009) and Baker (2008).

⁴A notable recent effort to look into more detail with respect to welfare state preferences and vote choice is Walter (2010)’s study.

of embedded liberalism, we hypothesize that

Hypothesis 2 (embedded liberalism): *The more compensation the government grants, the more positive are citizens' attitude towards globalization.*

Individual Characteristics and the Attitude towards Globalization

Having looked at how different national contexts impact on an individual's globalization preference and thereby testing the macro-micro implications underlying the compensation hypothesis, we now turn to the question whether an individuals' attitude might differ depending on their personal characteristics, whether economic, social or demographic.

We therefore rely on standard trade theory as well as other theoretically relevant concepts to predict individual attitudes towards globalization.⁵ In the classical Stolper-Samuelson theorem (as an implication of the Heckscher-Ohlin (H-O) model), free trade benefits individuals owning the relatively abundant factor (in our set of developed countries these are the owners of capital or the owners of labor skills (Oatley 2010)), and hence these individuals tend to favor globalization, whereas unskilled and low-skilled labor as the owners of disadvantaged factors see a decline in their real incomes. In contrast to the H-O model, the specific factors model, or the Ricardo-Viner (R-V) framework, would predict that sectors serve as the conflicting lines concerning preferences toward free trade. Accordingly, individuals who receive their income out of the comparatively advantaged sectors, i.e. sectors that will gain from globalization, will be in favor of trade openness whereas those sectors that are comparatively disadvantaged will oppose trade openness.

With regard to empirical support for these two standard trade theories, there is still no consensus as to whether the Heckscher-Ohlin Model or the Ricardo-Viner Model fits the stylized facts best. Whereas Hays et al. (2005)'s results show that individuals employed in import competing industries are the strongest opponents of trade, Scheve & Slaughter (2001) rather find support for the factor endowments model. Using individual level survey data to explain trade policy preferences, Scheve & Slaughter (2001) find that factor type eclipses industry of employment in terms of explaining individual support for trade barriers. That individual trade preferences interact with country char-

⁵An assumption made here is that individuals do care about personal well-being before national well-being and are motivated by material self-interest.

acteristics as predicted by the H-O Model is one of the key findings and a very robust result in Mayda & Rodrik (2005)'s study. However, they also find some, albeit less support for the R-V Model. Looking at redistributive preferences rather than trade preferences, Rehm (2009) also concludes that it is an individual's occupation and not the industry of employment that shapes redistributive demand.

Independent of whether one believes the H-O or the R-V model to be true, it seems to be warranted to take into account that those individuals who are winning from trade – be it because they possess the abundant factor in this economy or because they work in the corresponding sector – should perceive globalization differently from those individuals who are losing from trade.

Actual globalization and individual characteristics

In particular, we argue that actual economic openness should reinforce both winners and losers from trade in their perception of globalization. More precisely, individuals who are supposed to benefit from trade should be reinforced in their positive perception on globalization. Since living in an open economy should make a globalization winner even better off relative to a globalization loser, the positive attitude towards globalization should be more pronounced in a more open economy. In contrast, those individuals who are losing from trade should see globalization as even worse when exposed to higher levels of actual globalization. This should be the case because globalization losers living in more open economies should be even more under pressure by globalization than if they were living in less globalized countries. Consequently, we adopt hypothesis 1 to this fact and hypothesize that individuals' perception on globalization should be contingent on whether they are winning from trade.

Hypothesis 3a: *Citizens' attitude towards globalization should vary with the level of actual globalization contingent on whether this individual loses or wins from trade.*

Welfare state generosity and individual characteristics

In a similar vein, individuals losing out from globalization and those winning from globalization should differ in their attitude towards globalization given the level of compensation their governments grant. However, in this case the logic should not be of a reinforcing but rather of a compensating nature. Recalling the theoretical underpinnings of the compensation hypothesis, it is argued that (potential) losers of globalization will demand compensatory policies from their

government to shield them from the vagaries of globalization. Consequently, for the argument presented in this paper, given the context of the national level of welfare state generosity, we expect differences in an individuals' attitude towards globalization depending on whether he or she wins or loses from globalization. We thus expect their reaction being conditional on the context as well as on their individual characteristics.

Since winners of globalization should embrace globalization simply because they are winners, living in a country with high levels of welfare generosity should not make a difference to them. For these individuals the event of losing their job due to globalization is highly unlikely and so is the event of needing to rely on the government sponsored safety net. Hence globalization winners should embrace globalization independent of whether they live in a country with a high or a low level of welfare generosity. In contrast, the actual level of the government sponsored safety net should make a real difference for those individual who feel threatened by globalization. According to the embedded liberalism claim, those individuals losing out should be shielded from globalization and should therefore no longer oppose globalization. However, if globalization losers live in countries that do not shield them from globalization they should be reinforced in their negative opinion on globalization. This implies that the level of welfare generosity should only make a difference for those individuals who feel threatened by globalization. In this case, higher levels of government sponsored safety nets should make these individuals more prone to embrace globalization while lower levels of government sponsored safety nets should reinforce them in their negative attitude towards globalization. We thus stipulate that

Hypothesis 3b: *Citizens' attitude towards globalization should vary with the generosity of the welfare state contingent on whether this individual loses or wins from trade.*

The following section introduces the hierarchical framework with which we want to test our hypotheses, describes our data set in detail and provides our results.⁶

⁶Since our survey dates from 2004, we might not be able to find support for our hypothesis 1 due to the fact that citizens have already been compensated and feel cushioned against globalization implying that the compensation hypothesis would hold. We are aware of this fact and therefore control for the size of the welfare state prior to our survey in our models (c.f. our empirical analysis part for more details).

Empirical Analysis

As discussed in the theoretical section, the aim of this paper is to test the conditional effect of actual globalization/compensation on individuals' perception of globalization. Hence we are necessarily dealing with a phenomenon that extends over two levels of analysis: the macro (country) level and the micro (individual) level. In order to test the theoretical arguments we rely on a hierarchical model framework.⁷ More specifically, we use a random-intercept logistic model to test hypotheses 1 and 3 and a random-coefficient logistic model to evaluate hypothesis 2.⁸

The random-intercept logistic model accounts for the fact that observations for individuals from the same country are not independent of each other (Rabe-Hesketh & Skrondal 2009). The model can be written as:

$$\begin{aligned} \text{logit}\{\text{Pr}(y_{ij} = 1|x_{ij}, \zeta_j)\} &= \beta_0 + \beta_1 x_{ij} + \beta_2 x_j + \zeta_j & (1) \\ \text{with } \zeta_j &\sim N(0, \psi) \\ \text{and } y_{ij} &\sim \text{binomial}(1, \pi_{ij}) \\ \text{where } \pi_{ij} &\equiv \text{Pr}(y_{ij} = 1|x_{ij}, \zeta_j) \end{aligned}$$

The dependent variable y_{ij} stands for individual i of country j 's attitude towards globalization, which is a binary variable. Next to a set of covariates, which can either vary at the individual (x_{ij}) or the country level (x_j), the model includes a country-specific intercept ζ_j , which accounts for unobserved heterogeneity at the country level (Rabe-Hesketh & Skrondal 2009). This country-specific random intercept is modeled as following a normal distribution.

The random-coefficient logistic model, in contrast to the random-intercept model, allows the estimated coefficients of the covariates to also vary between countries. More importantly, it is possible to let the estimated coefficients of the individual level covariates vary with the level of globalization or the level of compensation observed at the country level. This procedure therefore permits us to test whether, for example, individuals who lose from globalization perceive it less favorably in countries that are more globalized compared to globalization losers who live in less globalized countries.

⁷Using an ANOVA to decompose the variance in globalization perceptions indicates that there is indeed sufficient variation across our two levels of analysis. Results are available upon request.

⁸Since we incorporate independent variables that vary both at the individual as well as at the country level, it is appropriate to rely on a multi-level model instead of using a fixed-effects model.

Variables and Operationalization

Our individual level data is taken from the Eurobarometer 2004 spring survey (ZA4056), which includes respondents from the European Union's 15 oldest member countries. The Eurobarometer is a European-wide survey consisting of around 1000 interviews per member state of the European Union (Eurobarometer 2004).⁹

We have chosen this particular Eurobarometer survey due to various reasons. First, the Eurobarometer is the only cross-national survey we know of that poses questions directly about individuals' perception of globalization and not on globalization-related issues such as protectionism. This is the case e.g. for the International Social Survey Programme (ISSP) (Mayda & Rodrik 2005).¹⁰ Furthermore, the question about globalization gives a clear definition of what globalization is supposed to mean. Hence all respondents should in principle answer this question with a conception of economic globalization in mind. Finally, this 2004 Eurobarometer survey contains two questions on individuals' attitudes towards globalization: one question asking for implications of globalization for the specific country and one asking for implications of globalization for the individual person (see below). Hence this survey allows us to test whether citizens do distinguish between what globalization means for them personally and what globalization means for their specific country.

These many advantages of the survey come along with one disadvantage, that we cannot directly allocate the professions of the interviewees to exporting or import-competing sectors. This implies that we cannot directly test the implications of the R-V trade model following the standard procedure in the literature (Hays 2009; Mansfield & Mutz 2009). Instead we need to rely on information on both the profession of the interviewees as well as their education levels to construct a variable indicating whether their occupation is likely to be threatened by globalization.¹¹

⁹The only exceptions are Luxembourg with 600 interviews, the United Kingdom with 1000 interviews for Great Britain and 300 for Northern Ireland and Germany with 1000 interviews in the Western as well as in the Eastern part.

¹⁰Former studies dealing with individuals' perception on globalization-related issues often rely on the American National Election Survey (Hainmueller & Hiscox 2006; Scheve & Slaughter 2001). Since we need survey data encompassing different countries to ensure variation in the level of globalization to test our argument, we cannot rely on the NES data.

¹¹Although, it would be preferable to be able to allocate the respondents to exporting or import-competing sectors, most literature shows that skill level and capital ownership seem to be the more important factors in predicting individuals' attitudes towards trade (Scheve & Slaughter 2001, 2006; Rehm 2009). Or in the words of Scheve & Slaughter (2006,

To measure our dependent variable, citizens' attitude towards globalization, we use the following question:

Question: *You may have heard of globalisation, that is the general opening-up of all economies, which leads to the creation of a world-wide market. [...], could you please tell me if you tend to agree or if you tend to disagree?*

Overall, globalisation is a good thing for ME:

Tend to agree; Tend to disagree; Don't know

We coded the 5,260 respondents who answered that they agree with the statement that globalization is good for themselves as 1 and the 6,780 respondents who did not agree with the statement as 0. Persons answering "I do not know" were coded as missing values. Table 1 shows how many individuals per country agree that globalization is good for themselves and how many do not agree with this statement. In the UK, Ireland, the Netherlands, Finland, Sweden and Denmark a majority believes that globalization is good for themselves while most people in Germany, France, Greece, Italy, Belgium, Spain and Austria perceive globalization as negative for themselves. Altogether, a majority of the respondents consider globalization not to be a good thing for them personally.

Table 1 about here

To measure actual globalization, we incorporate trade openness (the log of exports + imports divided by a country's GDP) as a country level predictor in our models (Heston et al. 2006). However, as is common in the literature, we use further indicators of globalization in order to check the robustness of our results (see section on robustness checks) (Garrett & Mitchell 2001; Brady et al. 2005; Dreher et al. 2008). As different measures pertaining to the generosity of the welfare system exist (Hays 2009; Garrett & Mitchell 2001), we rely on two different proxies. First, we use government spending on active labor market programs (ALM) as a percentage of government spending. And second, we rely on government spending related to unemployment as a percentage of total government spending. Both variables are taken from the OECD Social Expenditure Database. As the Eurobarometer survey took place at the beginning of 2004, we use the 2003 value of all of the independent variables that vary at the country level to ensure that they were measured well before the date of our survey.

On the individual level, the variables of interest are a respondent's skill level, whether she is a capital owner and whether professionally

p.239) "The effects of skill trade exposure are large and precise; the effects of industry trade exposure are small and uncertain".

she wins or loses from globalization. Using all of the three variables in the same model would potentially overfit the data because it is highly unlikely that someone is very well educated, a capital owner but would professionally lose from globalization. Hence we incorporate either a respondent's education or whether she is a globalization winner in our model but not both variables at the same time.¹² First, we measure the skill level of each individual by her education level. The Eurobarometer asks its interviewees how old they were when they finished their full-time education. This gives us a continuous measure of education, which is in line with other studies such as Scheve & Slaughter (2001). For those respondents who were still studying we use their current age instead.¹³ Second, we use dummies indicating the income quartile a respondent belongs to in order to proxy whether she is a capital owner (Hays 2009).

Third, we rely on specific combinations between a respondent's profession and her education to construct a variable indicating whether someone's profession is likely threatened by globalization as predicted by the sector-specific trade model. Those people who are unemployed are assigned to be trade losers independent of their education level. This is also true for farmers, fishermen and unskilled manual workers who should all lose from increased globalization. Shop owners and craftsmen who have an education level of less than 20 years are also assigned to be trade losers. Similarly, less educated (less than 20 years) respondents working in employed positions are also thought of as globalization losers.

In contrast, skilled manual workers, employed and self-employed professionals, business proprietors, supervisors, managers and people working in a service job should all win from trade independent of their education. This should also be the case for highly educated middle management, owners of a shop, craftsmen and highly educated people working in employed positions.¹⁴ A little bit more controversial are those individuals who are either retired or students. As retired people in most of our countries obtain their income from a secure source that is not affected by globalization, we decided to allocate the retired as globalization winners. Similarly, students belong to the part of

¹²However, results do not change when we enter all three variables in the same model.

¹³The maximum age of education is 39 years. However, a few respondents in their fifties and sixties answered that they were still studying. Since it is very unlikely that they have been studying their entire adult life, we decided to set their age of education to the maximum of 39 years.

¹⁴For those individuals who look after the household and are therefore not working, we use the profession of the head of the household to assign the person as either a trade winner or loser.

society that is highly educated, which should allow them to find highly qualified jobs not threatened by globalization. However, we check the robustness of our globalization-winner measure by allocating either students or retired or both also to the globalization losers.

Moreover, we include further variables that are commonly controlled for in studies of individuals' perceptions of globalization-related issues (Scheve & Slaughter 2001; Mayda & Rodrik 2005; Hainmueller & Hiscox 2006). First, we include a respondent's gender and age in our regression model. Second, we include dummy variables capturing individuals' political attitudes (Rehm 2009; Cusack et al. 2005). The variable *left* takes on the value one for those individuals that have placed themselves on the left when asked for a self-placement on a left-right continuum. In contrast, the variable *right* characterizes those citizens who have placed themselves on the right of this continuum. The baseline category for both dummies is composed of those citizens who placed themselves in the center of this left-right continuum.

Table 2 shows the descriptive statistics for all of our variables.

Table 2 about here

Results

Table 3 presents the results of the random intercept logistic model testing hypothesis 1 and 3. The inclusion of the random effect seems to be important since it helps to capture significant unobserved heterogeneity at the country level. In none of the models is an increase in globalization significantly associated with a respondent's view on globalization. Hence the actual level of globalization does not seem to affect how people evaluate what globalization means for them personally. This finding does not support hypothesis 1 and therefore runs counter to the implication underlying the compensation hypothesis that people living in more open economies perceive globalization as more negatively.

Table 3 about here

Regarding our second hypothesis, which refers to the nexus between the generosity of the welfare state and individuals' perception of globalization, we receive mixed results depending on the measure we use. As displayed in columns 1 and 2, if we rely on active labor market programs as percentage of government expenses, we see that ALMs significantly increase the likelihood of seeing globalization as

something beneficial. In contrast, expenses on unemployment programs (as displayed in column 3 and 4) do not seem to alter people's perception of globalization at all. Hence the results are partly in line with the second hypothesis implying that people living in more generous welfare states do indeed feel compensated by their government.

The results for the individual characteristics do not come as a surprise. Importantly, it does not make a difference whether we include a person's level of education (columns 1 and 3) or whether she works in a profession that is likely to benefit from globalization (columns 2 and 4). As predicted by theory, more educated people are more likely to assess globalization as something beneficial. In the same way, individuals whose jobs are likely to benefit from globalization also tend to consistently perceive it as positive, which is in line with the predictions of the sector specific trade model. Furthermore, capital owners are significantly more likely to see globalization as a good thing for themselves as well as for their country. Hence our results lend support to both the H-O and the R-V trade model.

With regard to a person's age, the results imply that older persons are significantly more likely to see globalization as something negative for themselves. Likewise, women seem to be more inclined to dislike globalization than men. This finding is in line with a growing literature on the gender gap with regard to globalization attitudes (Burgoon & Hiscox 2008). Finally, concerning political attitudes we see that individuals who place themselves politically on the left perceive globalization as negative while individuals who place themselves on the right tend to think of globalization as something positive for themselves.

Table 4 about here

Both hypotheses 3a and 3b highlight that the effect of actual globalization and actual compensation respectively should vary depending on the individual being a globalization winner and loser. Table 4 therefore shows the results if we additionally include interaction effects between openness and compensation on the one hand and the various variables that capture whether an individual can be thought of as a globalization winner. Columns 1 and 2 in Table 4 show the interaction between the level of education to represent the winners of globalization and actual globalization or compensation respectively. In Columns 3 and 4 we rely on capital ownership (belonging to the 4th income quartile) to represent globalization winners and in Columns 5 and 6 we use the variable capturing whether an individual's profession should profit from globalization to represent globalization winners.

Since the interpretation of the interaction effects is not straightforward within the context of a logistic multilevel regression model, we provide various graphs to visualize effect sizes. In all of the Figures 3 to 8 we plot four different scenarios to assess the different possibilities covered by hypotheses 3a and 3b: being a trade winner and living in a country with high trade openness (or high compensation), being a trade winner and living in a country with low trade openness (or low compensation), being a trade loser and living in a country with high trade openness (or high compensation), and being a trade loser and living in a country with low trade openness (or low compensation). For all these combinations we simulated predicted probabilities using a Bayesian multilevel model with flat-priors. This approach allowed us to obtain a 90 percent confidence interval for the predicted probabilities and thus to capture the uncertainty underlying our estimates. More precisely, Figures 3 to 8 depict the 90 percent confidence interval of the predicted probability of seeing globalization as something positive depending on the four scenarios described above for a male individual with a center political attitude and age being kept at its median value (45 years). When simulating the predicted probabilities for the education interaction effects we do this for an individual who belongs to the third income group while we set education to its median value (18 years) when simulating the predicted probabilities for the income and professional winner interaction effects. Finally, we keep either ALM or trade openness at its median value when simulating the openness or ALM interactions respectively.

Figures 3 to 8 about here

The results displayed in Figure 3 lend some support to hypothesis 3a: a high level of trade openness combined with a high level of education leads to the highest probability of seeing globalization as something positive. Hence this supports the argument that for individuals who are winning from globalization (being well educated) trade openness reinforces their positive attitude towards globalization. Interestingly, we do not observe this reinforcing effect for individuals with a low level of education: living in a country with high trade openness does not further decrease their likelihood of seeing globalization as something positive. The results are similar if we consider capital ownership (belonging to the 4th income quartile) instead of education (Figure 4). Again trade openness reinforces the positive globalization attitude of those individuals who are winning from globalization (owning capital) as predicted by our theoretical argument. In contrast to hypothesis 3a, however, individuals who are losing from trade

also seem to be more likely to see globalization as something positive if they live in a more open country. Hence instead of reinforcing their more negative view on globalization, actual openness also has a positive effect on globalization attitudes for globalization losers. The exact same picture arises if we consider whether an individual professionally wins from globalization (Figure 4). Hence overall the results lend only partial support to hypothesis 3a in that actual globalization indeed reinforces the positive attitude of globalization winners but it does not seem to reinforce the negative attitude of globalization losers.

Turning to the interaction between education and active labor market programs as a percentage of government spending (Figure 6), we obtain some support for hypothesis 3b. In line with our argument trade losers (individuals with low levels of education) have a higher probability of seeing globalization as something positive if they live in a country that is characterized by high ALM spending. Hence compensation seems to be working in that individuals seem to feel less threatened by globalization in countries with higher levels of compensation. Surprising in light of our argument is the finding that this compensation effect also holds for those individuals who can be seen as winners of globalization (highly educated individuals). Following our argument we should have observed that their attitude towards globalization should not be contingent on the level of welfare state generosity since they are winning from globalization and thus should not need to rely on government compensation. However, empirically these individuals, as those individuals that are losing from globalization, feel more inclined to embrace globalization if they live in a country that offers a strong government sponsored safety net. These results are supported if we look at the other two interaction effects as displayed in Figure 7 (capital ownership (belonging to the 4th income quartile) and ALM spending) and in Figure 8 (professional trade winner and ALM spending).

To conclude, our results imply only weak support for the implications of the compensation hypothesis as derived in hypothesis 1 and 2 and some support for the argument that the effect of globalization and welfare state generosity is conditional on individual level characteristics (hypotheses 3a and 3b). Our first hypothesis is not compatible with the results of our multilevel model as higher globalization levels are not associated with individual globalization preferences. In contrast, if we consider the effect of welfare state generosity we observe in the case of active labor market spending that individuals living in countries with a stronger social safety net seem to be more in favor of globalization thus supporting hypothesis 2. If we condition the effect of globalization on whether a person wins or loses from global-

ization, we obtain some interesting results. While actual globalization reinforces the positive view on globalization of those individuals who benefit from globalization it does not reinforce the negative view of those individuals who are losing from globalization. Hence the reinforcing effect predicted by hypothesis 3a only holds for globalization winners while it does not hold for globalization losers. A potential reason for this finding could be that we control for the level of compensation granted by the government. Hence the inclusion of welfare generosity might break the link between actual globalization and a negative attitude towards globalization for those individuals who are losing from trade. Finally, our results partially support hypothesis 3b as trade losers indeed feel compensated by high active labor market spending and therefore have a much higher likelihood of seeing globalization as something positive than if they live in a country with a low level of welfare state generosity. Interestingly, this compensatory effect also holds for individuals who are winning from trade and for whom compensation should thus be irrelevant.

Robustness Checks

In this section we describe various robustness checks we have completed to reassess our results. Following the literature, we replace trade openness with further indicators of globalization in order to check the robustness of our results (Garrett & Mitchell 2001; Brady et al. 2005; Dreher et al. 2008). Accordingly, we use Foreign Direct Investment net inflows as well as net outflows expressed as a percentage of GDP. The data come from the World Development Indicators (World Bank 2006).

However, as we can see in Table 5, the results are substantively identical to the results using general trade openness. This means that independent of whether we use Foreign Direct Investment or trade openness to measure globalization, individuals' perception of globalization does not depend on the actual level of globalization in the respective country.

Table 5 about here

Furthermore, we checked whether our results hold if we control for how well an individual is informed. It could be argued that only well-informed individuals make the connection between actual globalization and the compensation granted by the government. Unfortunately, the Eurobarometer data contains only a question that asks whether individuals use the newspaper to obtain information on the European Union. Although this variable is far from optimal, if we rely

on it to control for whether a respondent is informed does not change our results as can be seen in Table 6. Interestingly, the results suggest that individuals who are better informed by using the newspaper to gather information on the EU are also more likely to see globalization in a positive light. We further control in this regression model for whether a respondent indicated that taxation is an important issue to him or her. This could be important in that globalization winners could be less supportive to a generous welfare state since they are the ones who need to pay for it through their taxes without probably ever being in need to rely on its safety net. However, the results suggest that controlling for the importance of taxation does not alter the effect of compensation on individuals' attitudes towards globalization.

Table 6 about here

As described above, we created four different variables to capture whether someone's profession should lose or gain from trade as predicted by the sector specific trade model. When constructing the winner variable we relied on two pieces of information: a person's profession and her education level. However, given this information it is not entirely clear as to whether both students as well as retired persons should be counted as winners or losers of globalization. Until now we have used the variable that includes both students and retired persons as globalization winners. To test whether the results are sensitive to this decision, we created three additional variables counting either the students or the retired or both to the losers of globalization. As the results in table 7 shows, the effect of the winner variable stays positive in all cases. However, if we exclude the students from the winner category the effect turns insignificant (this is not the case if both retirees and students are excluded and individuals are asked for their perception of globalization on the personal level). Hence the above results stating that winners from globalization tend to perceive globalization as something beneficial needs to be interpreted with some caution.

Table 7 about here

Finally, we cross-checked our results using a two-step procedure instead of a random intercept model to explain individual attitudes towards globalization. This approach, as indicated by its name, consists of two steps to estimate the effect of globalization on citizens' attitudes. In a first step, all individual level characteristics are included in the regression. In a second step, the coefficients of the first regression equation are then used as the dependent variable to see how

country level characteristics such as the level of globalization influence individuals' attitudes: This approach of using two steps in contrast to a one-step hierarchical model is especially suitable for models in which the first equation consists of a non-linear-model (Achen 2005). However, the advantage of the two step procedure, which lies in the convenience of allowing coefficients to vary with any higher level variables, comes at the price of being less efficient (Leoni 2010).

Using this two-step procedure instead of the models shown above, does, however, not change our results in any substantive way.¹⁵ This lends further support to the various conclusions drawn from our earlier results.

Conclusion

In our paper, we provide a rigorous and extensive analysis on the conditional effect of country level globalization and country level compensation on individuals' perception of globalization. In particular, the aim of this paper was to test some implications of the two macro-micro links underlying the so-called compensation hypothesis. Specifically, we firstly evaluated whether individuals who are living in more globalized countries indeed perceive globalization as more threatening as would be in line with the compensation hypothesis. Furthermore, we assessed whether governments are able to cushion their citizens from the perceived negative consequences of globalization by providing a stronger social safety net. Finally, we tested whether an individual's perception of globalization is contingent on them winning or losing from trade. As both of these links extend over two levels of analysis – the macro country level and the micro individual level – we consequently rely on a hierarchical model framework. More specifically, we use random intercept and random coefficient logistic models to incorporate both individual explanatory factors as well as country specific variables to explain individual attitudes towards globalization.

For our first hypothesis, we expected that if the compensation hypothesis holds, people in more open economies should exhibit a relatively more negative attitude toward globalization. In our analyses, however, we have found that actual globalization (measured by trade openness as well as by foreign direct investment in and outflows) does not play a significant role for people's perception at all. As far as our second hypothesis is concerned, we stipulated that the granting of benefits for losers of globalization should help people to view global-

¹⁵Since reporting the results requires numerous tables, they are available from the authors on request.

ization as a necessary and good development, and – in line with the claims of embedded liberalism – we hypothesized that this would lead to a higher propensity to see globalization in a positive way. This is indeed the case if the generosity of the welfare state is measured using government spending on active labor market programs. However, for our other measure – government spending on unemployment – we see that the granting of compensation is not connected to the perception of globalization.

On the individual level we see that, in line with standard trade theory, capital owning individuals are more in favor of globalization. Similarly, highly educated persons and individuals whose profession should win from globalization are also more likely to see globalization as something beneficial. In contrast, women, the elderly and individuals with left-wing political attitudes tend to be less favorable towards globalization.

If we condition the effect of globalization on whether a person wins or loses from globalization, our findings partially support our theoretical arguments. While actual globalization reinforces the positive view on globalization of those individuals who benefit from globalization as predicted by theory it does not reinforce the negative view of those individuals who are losing from globalization. Hence the reinforcing effect predicted by hypothesis 3a only holds for globalization winners while it does not hold for globalization losers. A potential reason for this finding could be that we control for the level of compensation granted by the government. Hence the inclusion of welfare generosity might break the link between actual globalization and a negative attitude towards globalization for those individuals who are losing from trade.

Finally, our results partially support hypothesis 3b as trade losers indeed feel compensated by high active labor market spending and therefore have a much higher likelihood of seeing globalization as something positive than if they live in a country with a low level of welfare state generosity. Interestingly, this compensatory effect also holds for individuals who are winning from trade and for whom compensation should thus be irrelevant. This is puzzling since individuals who are winning from trade are also potentially those individuals who are paying most through taxes for the existence of a generous social safety. Hence living in a country with a strong social safety net should, following this perspective, rather decrease their positive perception on trade. In contrast, if one considers these individuals as being motivated by social concerns they might value the fact that their government looks after potential losers of globalization even if they themselves might never belong to this category.

Overall, our results are the first attempt to capture the link between the macro-level of actual globalization and the micro-level of citizens' attitude towards globalization in a multi-level setting. In this way, our paper intends to be a first grasp of how macro level phenomena such as globalization or the granting of a social safety net influence individual level perception given different individual level characteristics such as education or income, with further research going more into detail on these complex interrelationships.

References

- Achen, C. (2005), 'Two-step hierarchical estimation: Beyond regression analysis', *Political Analysis* **13**, 447–456.
- Baker, A. (2008), 'Public opinion and the compensation hypothesis', *Paper presented at the annual meeting of the International Political Economy Society, University of Pennsylvania, Philadelphia* .
- Boix, C. (2004), Between redistribution and trade: The political economy of protectionism and compensation, in S. Bowles & M. W. P. Bardham, eds, 'Globalization and Egalitarian Redistribution', Princeton University Press and Russell Sage Foundation, Princeton, NJ.
- Brady, D., Beckfield, J. & Seeleib-Kaiser, M. (2005), 'Economic globalization and the welfare state in affluent democracies, 1975-2001', *American Sociological Review* **70**(December), 921–948.
- Burgoon, B. (2001), 'Globalization and welfare compensation: Disentangling the ties that bind', *International Organization* **55**(03), 509–551.
- Burgoon, B. & Hiscox, M. (2008), 'The gender divide over international trade: Why do men and women have different views about openness to the world economy?', *SSRN Working Paper* .
- Cameron, D. R. (1978), 'The expansion of the public economy: A comparative analysis', *The American Political Science Review* **72**(4), 1243–1261.
- Carpini, M. X. D. & Keeter, S. (1997), *What Americans know about politics and why it matters*, Yale Univ Press, New Haven.
- Carpini, Michael, X. & Keeter, S. (1993), 'Measuring political knowledge: Putting first things first', *American Journal of Political Science* **37**(4), 1179–1206.
- Coleman, J. S. (1990), *Foundations of social theory*, Harvard University Press, Cambridge, MA.
- Cusack, T., Iversen, T. & Rehm, P. (2005), 'Risks at work: The demand and supply sides of government redistribution', *Discussion Paper SP II 2005 - 15 Wissenschaftszentrum Berlin* .

- Down, I. (2007), 'Trade openness, country size and economic volatility: The compensation hypothesis revisited', *Business and Politics* **9**(2), 30.
- Dreher, A., Sturm, J.-E. & Ursprung, H. (2008), 'The impact of globalization on the composition of government expenditures: Evidence from panel data', *Public Choice* **134**(3), 263–292.
- Economist (2009), 'The return of economic nationalism', *The Economist* .
- Eurobarometer (2004), 'Standard eurobarometer survey', http://ec.europa.eu/public_opinion/standard_en.htm.
- Galston, W. A. (2001), 'Political knowledge, political engagement, and civic education', *Annual Review of Political Science* **4**(1), 217–234.
- Garrett, G. (1995), 'Capital Mobility, Trade, and the Domestic Politics of Economic Policy', *International Organization* **49**(04), 657–687.
- Garrett, G. & Mitchell, D. (2001), 'Globalization, government spending and taxation in the oecd', *European Journal of Political Research* **39**(2), 145–177.
- Gelman, A. & Hill, J. (2007), *Data analysis using regression and multi-level/hierarchical models*, Cambridge University Press, Cambridge, UK.
- Genschel, P. (2004), 'Globalization and the welfare state: a retrospective', *Journal of European Public Policy* **11**, 613–636.
- Hainmueller, J. & Hiscox, M. J. (2006), 'Learning to love globalization: Education and individual attitudes toward international trade', *International Organization* **60**(02), 469–498.
- Hays, J. (2009), *Government Spending and Public Support for Trade in the OECD*, Oxford University Press, Oxford.
- Hays, J. C., Ehrlich, S. D. & Peinhardt, C. (2005), 'Government spending and public support for trade in the oecd: An empirical test of the embedded liberalism thesis', *International Organization* **59**(02), 473–494.
- Heston, A., Summers, R. & Aten, B. (2006), 'Penn world table version 6.2', *Center for International Comparisons of Production, Income and Prices at the University of Pennsylvania* .

- Hicks, A. & Swank, D. (1992), 'Politics, institutions and welfare spending in industrialized democracies', *American Political Science Review* **86**, 658–674.
- Huber, E., Ragin, J. & Stephens, J. (1993), 'Social democracy, constitutional structure and the welfare state', *American Journal of Sociology* **99**(3), 711–749.
- Iversen, T. & Cusack, T. (2000), 'The causes of welfare state expansion: Deindustrialization or globalization?', *World Politics* **52**, 313–349.
- Kittel, B. & Winner, H. (2005), 'How reliable is pooled analysis in political economy? the globalization-welfare state nexus revisited', *European Journal of Political Research* **44**(2), 269–293.
- Leoni, E. (2010), 'Analyzing multiple surveys: Results from monte carlo experiments'.
URL: <http://eduardoleoni.com/>
- Mansfield, E. D. & Mutz, D. C. (2009), 'Support for Free Trade: Self-Interest, Sociotropic Politics, and Out-Group Anxiety', *International Organization* **63**(03), 425–457.
- Mayda, A. M. & Rodrik, D. (2005), 'Why are some people (and countries) more protectionist than others?', *European Economic Review* **49**(6), 1393–1430.
- Oatley, T. (2010), *International Political Economy*, Longman, Boston.
- Pierson, P. (2001), '3. post-industrial pressures on the mature welfare states', *The New Politics of the Welfare State* **1**, 80–105.
- Plümper, T., Tröger, V. & Manow, P. (2005), 'Panel data analysis in comparative politics: Linking method to theory', *European Journal of Political Research* **44**(2), 327–354.
- Rabe-Hesketh, S. & Skrondal, A. (2009), *Multilevel and Longitudinal Modeling Using Stata*, Stata Press, College Station, Texas.
- Rehm, P. (2009), 'Risks and Redistribution: An Individual-Level Analysis', *Comparative Political Studies* **42**(7), 855–881.
- Rodrik, D. (1997), *Has globalization gone too far?*, Institute for International Economics, Washington, DC.

- Rodrik, D. (1998), 'Why do more open economies have bigger governments?', *Journal of Political Economy* **106**(5), 997–1032.
- Ruggie, J. G. (1982), 'International regimes, transactions, and change: Embedded liberalism and the post-war economic regimes', *International Organization* **36**, 195–232.
- Scheve, K. F. & Slaughter, M. J. (2001), 'What determines individual trade-policy preferences?', *Journal of International Economics* **54**(2), 267–292.
- Scheve, K. F. & Slaughter, M. J. (2004), 'Economic insecurity and the globalization of production', *American Journal of Political Science* **48**(4), 662–674.
- Scheve, K. F. & Slaughter, M. J. (2006), Public opinion, international economic integration, and the welfare state, in P. Bardhan, S. Bowles & M. Wallerstein, eds, 'Globalization and Egalitarian Redistribution', Princeton University Press, Princeton, pp. 217– 260.
- Steenbergen, M. R. & Jones, B. S. (2002), 'Modeling multilevel data structures', *American Journal of Political Science* **46**(1), 218–237.
- Swank, D. (1998), 'Funding the welfare state: globalization and the taxation of business in advanced market economies', *Political Studies* **46**(4), 671–692.
- Walter, S. (2010), 'Globalization and the welfare state: Testing the microfoundation of the compensation hypothesis', *International Studies Quarterly* **54**(02), 403–426.
- World Bank (2006), 'World development indicators', <http://go.worldbank.org/UOFSM7AQ40>.

Appendix

Table 1: Descriptive Statistics of Dependent Variable

	Globalization not good for me	Globalization good for me
UK	395	467
Ireland	273	376
Netherlands	343	433
Belgium	489	273
Luxembourg	272	214
France	615	195
Spain	454	219
Portugal	357	337
Germany	1002	506
Austria	566	285
Italy	479	305
Greece	549	280
Finland	373	408
Sweden	332	515
Denmark	281	447
Total	6,780	5,260

Table 2: Descriptive Statistics

	Mean	Standard Deviation	Maximum	Minimum	N
ln trade openness	4.41	0.50	5.55	3.88	15
welfare spending	18.16	4.45	26.2	9.92	15
ALM	1.89	0.96	0.42	3.5	15
unemployment spending	2.88	1.76	0.8	5.98	15
winner	0.73	0.45	0	1	16216
2nd income quartile	0.27	0.44	0	1	11044
3rd income quartile	0.23	0.42	0	1	11044
4th income quartile	0.25	0.44	0	1	11044
education	18.30	4.82	6	40	16216
gender	0.52	0.50	0	1	16216
age	45.33	18.34	15	98	16216
left	0.33	0.47	0	1	13199
right	0.26	0.44	0	1	13199

Table 3: Random intercept logistic model

	(1)	(2)	(3)	(4)
ln trade openness	0.34 (0.242)	0.36 (0.244)	0.42 (0.263)	0.44 (0.271)
ALM	0.22* (0.123)	0.24* (0.124)		
unemployment spending			-0.03 (0.073)	-0.03 (0.076)
education	0.02*** (0.005)		0.02*** (0.005)	
winner		0.22*** (0.058)		0.23*** (0.058)
2nd income quartile	0.07 (0.071)	0.07 (0.071)	0.07 (0.071)	0.07 (0.071)
3rd income quartile	0.15** (0.074)	0.15** (0.074)	0.14* (0.074)	0.15** (0.074)
4th income quartile	0.31*** (0.073)	0.32*** (0.072)	0.30*** (0.073)	0.32*** (0.072)
gender	-0.16*** (0.049)	-0.15*** (0.049)	-0.16*** (0.049)	-0.15*** (0.049)
age	-0.01*** (0.001)	-0.01*** (0.001)	-0.01*** (0.001)	-0.01*** (0.001)
left	-0.22*** (0.058)	-0.22*** (0.058)	-0.22*** (0.058)	-0.22*** (0.058)
right	0.21*** (0.061)	0.21*** (0.061)	0.21*** (0.061)	0.21*** (0.061)
Constant	-2.09* (1.068)	-1.90* (1.075)	-1.96* (1.159)	-1.75 (1.189)
σ_{ζ_j}	0.43	0.43	0.47	0.48
Observations	7,549	7,549	7,549	7,549
Number of countries	15	15	15	15

Standard errors in parentheses; *** p<0.01, ** p<0.05, * p<0.1

Adding another level

Table 4: Random coefficient logistic model

	(1)	(2)	(3)	(4)	(5)	(6)
trade openness	0.30 (0.241)	0.31 (0.246)	-0.31 (0.432)	0.33 (0.250)	0.27 (0.273)	0.38 (0.246)
ALM	0.17 (0.140)	0.17 (0.122)	0.15 (0.167)	-0.28* (0.165)	0.24** (0.124)	0.21 (0.138)
trade*income	0.21 (0.175)					
ALM*income		0.15** (0.072)				
trade*education			0.04* (0.021)			
ALM*education				0.03*** (0.007)		
trade*winner					0.12 (0.137)	
ALM*winner						0.03 (0.062)
education	0.02*** (0.005)	0.02*** (0.005)	-0.14 (0.094)	-0.04** (0.016)		
winner1					-0.30 (0.602)	0.16 (0.138)
2nd income quartile	0.08 (0.071)	0.07 (0.071)	0.07 (0.071)	0.07 (0.071)	0.07 (0.071)	0.07 (0.071)
3rd income quartile	0.15** (0.074)	0.14* (0.074)	0.16** (0.075)	0.16** (0.074)	0.15** (0.074)	0.15** (0.074)
4th income quartile	-0.64 (0.767)	-0.02 (0.166)	0.32*** (0.073)	0.33*** (0.073)	0.32*** (0.072)	0.32*** (0.072)
gender	-0.16*** (0.049)	-0.16*** (0.049)	-0.17*** (0.049)	-0.17*** (0.049)	-0.15*** (0.049)	-0.15*** (0.049)
age	-0.01*** (0.001)	-0.01*** (0.001)	-0.01*** (0.001)	-0.01*** (0.001)	-0.01*** (0.001)	-0.01*** (0.001)
left1	-0.22*** (0.058)	-0.22*** (0.058)	-0.23*** (0.058)	-0.23*** (0.058)	-0.22*** (0.058)	-0.22*** (0.058)
left3	0.21*** (0.061)	0.20*** (0.061)	0.21*** (0.061)	0.20*** (0.061)	0.21*** (0.061)	0.21*** (0.061)
Constant	-1.83* (1.062)	-1.87* (1.085)	0.95 (1.881)	-0.97 (1.124)	-1.52 (1.203)	-1.94* (1.091)
σ_{ζ_j}	0.42	0.42	0.55	0.43	0.45	0.45
σ_{η_j}	0.19	0.14	0.03	0.01	0.03	0.03
Observations	7,549	7,549	7,549	7,549	7,549	7,549
Number of groups	15	15	15	15	15	15

Standard errors in parentheses; *** p<0.01, ** p<0.05, * p<0.1

Table 5: Random intercept logistic model

	(1)	(2)
inward FDI % GDP	0.00 (0.002)	
outward FDI % GDP		0.00 (0.001)
ALM	0.29** (0.135)	0.29** (0.136)
education	0.02*** (0.005)	0.02*** (0.005)
2nd income quartile	0.07 (0.071)	0.07 (0.071)
3rd income quartile	0.15** (0.074)	0.15** (0.074)
4th income quartile	0.31*** (0.073)	0.31*** (0.073)
gender	-0.16*** (0.049)	-0.16*** (0.049)
age	-0.01*** (0.001)	-0.01*** (0.001)
left	-0.22*** (0.058)	-0.22*** (0.058)
right	0.21*** (0.061)	0.21*** (0.061)
Constant	-0.77** (0.324)	-0.76** (0.324)
σ_{ζ_j}	0.44	0.44
Observations	7,549	7,549
Number of groups	15	15

Standard errors in parentheses
 *** p<0.01, ** p<0.05, * p<0.1

Table 6: Random intercept logistic model

	(1)	(2)	(3)	(4)
trade openness	0.33 (0.243)	0.35 (0.245)	0.41 (0.263)	0.43 (0.269)
ALM	0.21* (0.124)	0.23* (0.125)		
unemployment spending			-0.03 (0.073)	-0.03 (0.075)
education	0.02*** (0.005)		0.02*** (0.005)	
winner		0.22*** (0.058)		0.22*** (0.058)
2nd income quartile	0.07 (0.071)	0.06 (0.071)	0.06 (0.071)	0.06 (0.071)
3rd income quartile	0.13* (0.075)	0.13* (0.075)	0.12 (0.075)	0.12* (0.075)
4th income quartile	0.28*** (0.073)	0.29*** (0.073)	0.28*** (0.073)	0.29*** (0.073)
gender	-0.15*** (0.049)	-0.14*** (0.049)	-0.15*** (0.049)	-0.14*** (0.049)
age	-0.01*** (0.001)	-0.01*** (0.001)	-0.01*** (0.001)	-0.01*** (0.001)
left	-0.22*** (0.058)	-0.21*** (0.058)	-0.22*** (0.058)	-0.21*** (0.058)
right	0.21*** (0.061)	0.21*** (0.061)	0.21*** (0.061)	0.21*** (0.061)
information on EU	0.18*** (0.052)	0.19*** (0.052)	0.18*** (0.052)	0.19*** (0.052)
taxation important	0.15 (0.092)	0.14 (0.092)	0.15 (0.092)	0.14 (0.092)
Constant	-2.11** * (1.073)	-1.94* (1.079)	-1.98* (1.158)	-1.79 (1.183)
σ_{ζ_j}	0.43	0.43	0.47	0.48
Observations	7,549	7,549	7,549	7,549
Number of countries	15	15	15	15

Standard errors in parentheses; *** p<0.01, ** p<0.05, * p<0.1

Table 7: Random intercept logistic model

	(1)	(2)	(3)
trade openness	0.35 (0.244)	0.35 (0.243)	0.34 (0.243)
ALM	0.23* (0.125)	0.24* (0.124)	0.24* (0.124)
winner (no retired)	0.27*** (0.057)		
winner (no students)		0.08 (0.057)	
winner (no retired + students)			0.12** (0.054)
2n income quartile	0.05 (0.072)	0.08 (0.072)	0.07 (0.072)
3rd income quartile	0.12 (0.075)	0.16** (0.075)	0.14* (0.075)
4th income quartile	0.27*** (0.074)	0.34*** (0.073)	0.31*** (0.075)
gender	-0.16*** (0.049)	-0.15*** (0.049)	-0.16*** (0.049)
age	-0.01*** (0.002)	-0.01*** (0.002)	-0.01*** (0.001)
left	-0.22*** (0.058)	-0.21*** (0.058)	-0.21*** (0.058)
right	0.21*** (0.061)	0.21*** (0.061)	0.21*** (0.061)
Constant	-1.98* (1.078)	-1.77* (1.071)	-1.80* (1.072)
σ_{ζ_j}	0.43	0.43	0.43
Observations	7,549	7,549	7,549
Number of groups	15	15	15

Standard errors in parentheses, *** p<0.01, ** p<0.05, * p<0.1

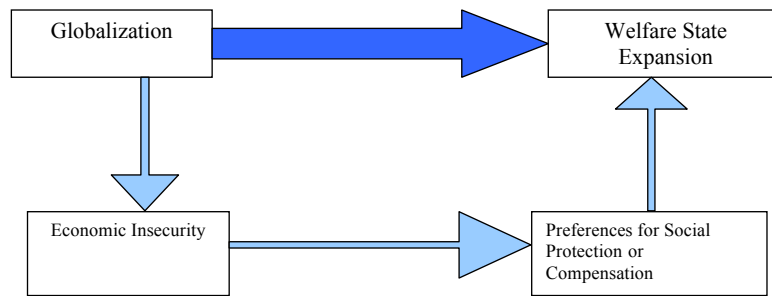


Figure 1: Diagrammatic representation of compensation hypothesis

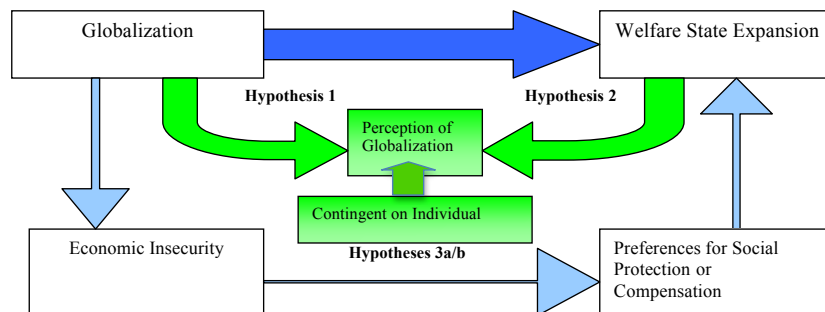


Figure 2: Diagrammatic representation of our argument

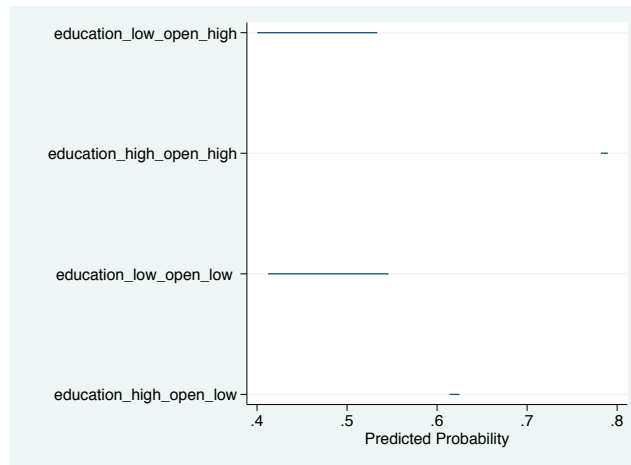


Figure 3: Simulated predicted probability of seeing globalization as positive given 4 different combinations of education and trade openness. Simulations are for a male individual in the 3rd income quartile with a center political attitude. ALM and Age are kept at their median values.

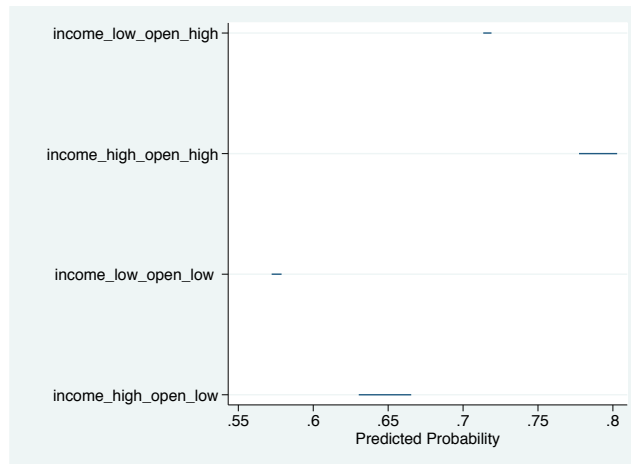


Figure 4: Simulated predicted probability of seeing globalization as positive given 4 different combinations of 4th income quartile and trade openness. Simulations are for a male individual with a center political attitude. ALM, education and Age are kept at their median values.

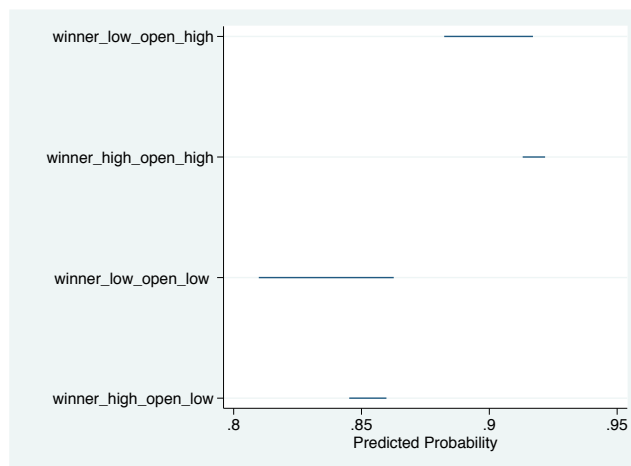


Figure 5: Simulated predicted probability of seeing globalization as positive given 4 different combinations of winner and trade openness. Simulations are for a male individual in the 3rd income quartile with a center political attitude. ALM and Age are kept at their median values.

Adding another level

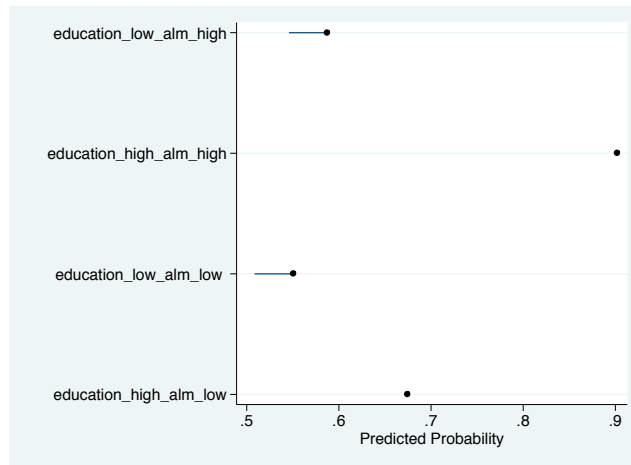


Figure 6: Simulated predicted probability of seeing globalization as positive given 4 different combinations of education and ALM. Simulations are for a male individual in the 3rd income quartile with a center political attitude. Openness and Age are kept at their median values.

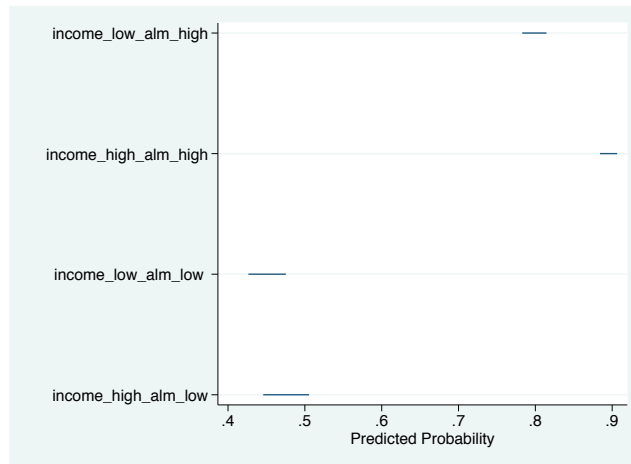


Figure 7: Simulated predicted probability of seeing globalization as positive given 4 different combinations of 4th income quartile and ALM. Simulations are for a male individual with a center political attitude. Openness, education and Age are kept at their median values.

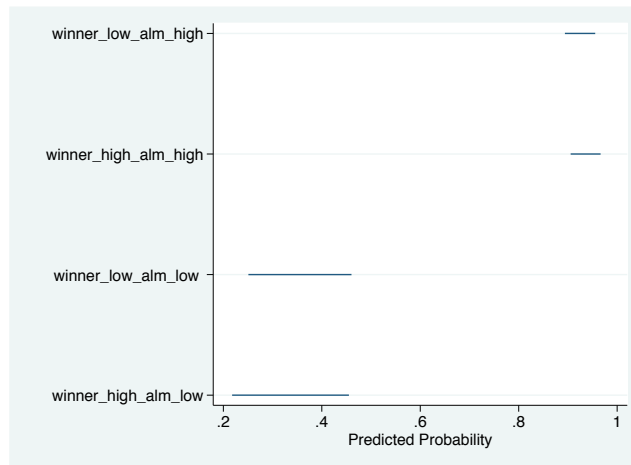


Figure 8: Simulated predicted probability of seeing globalization as positive given 4 different combinations of winner and ALM. Simulations are for a male individual in the 3rd income quartile with a center political attitude. Openness and Age are kept at their median values.