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Does social capital increase public support for economic globalisation?

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Abstract. The dominant explanation of public attitudes *vis-à-vis* economic globalisation focuses on re-distributional implications, with an emphasis on factor endowments and government-sponsored safety nets (the compensation hypothesis). The empirical implication of these theoretical arguments is that in advanced economies, on which this article focuses, individuals endowed with less human and financial capital will be more likely to experience income losses. Hence they will oppose economic openness unless they are compensated by the government. It is argued here that including social capital in the analysis can fill two gaps in explanations relying on factor endowments and the compensation hypothesis. First, generalised trust – one key aspect of social capital – constitutes a personal endowment alongside human and financial capital. Second, structural social capital – another key aspect of social capital – can be regarded as a nongovernmental social safety net that can compensate for endowment-related disadvantages of individuals. Both aspects of social capital are expected to contribute, for distinct reasons, to more positive views on economic openness. The empirical testing relies on survey data for two countries: Switzerland and the United States. For both countries, the results indicate that generalised trust has a strong, positive effect on public opinion of economic globalisation, whereas structural social capital has no effect.

Keywords: social capital; globalisation; compensation hypothesis; survey data

Most analysts of economic globalisation agree that it is driven primarily by the preferences and behaviours of electorates and policy makers, rather than by technology and market forces per se (e.g., Cerny 1995; Garrett 2000). One key area of research on globalisation has, therefore, focused on understanding the determinants of public support for or opposition to economic openness. Many studies have come up with micro- or macro-level explanations for why individuals or countries differ in attitudes and behaviour *vis-à-vis* international trade and economic globalisation more generally (e.g., Hainmueller & Hiscox 2006; Walter 2010). In this article we add to this literature by bringing *social capital* into the micro-level analysis of public opinion on economic openness.

Existing research views public support for or opposition to economic globalisation primarily as a function of re-distributional effects of globalisation

and predominantly derives its arguments from international trade theories in economics. At the macro-level, the empirical literature has in fact shown that greater economic openness has, at least in some countries, been associated with stagnating or even falling incomes, particularly for the less skilled part of the workforce, and has, more generally, increased labour market risks. At the same time, several studies also observe that public support for economic openness has stagnated or even declined in recent years (e.g., Stiglitz 2003; Scheve & Slaughter 2007).

At the micro-level, many studies on public attitudes *vis-à-vis* economic openness have identified positive effects for skills, education and income levels on support for globalisation (e.g., Hainmueller & Hiscox 2006; Walter 2010). These findings are seen as support for the factor endowments model, which states that in human and financial capital abundant economies, on which we focus in this article, economic openness tends to have negative income effects on individuals with low levels of human and/or financial capital.[1] As a corollary to this argument, many authors have noted that social safety nets – most prominently the welfare state – can mitigate increased re-distributional effects resulting from economic openness (e.g., Scheve & Slaughter 2007). In essence, social safety nets, which are at the heart of this so-called 'compensation hypothesis', redistribute income from individuals benefiting from economic openness to those experiencing negative effects. By implication, social safety nets should also mitigate opposition to economic openness. The prescriptive expression of this argument is that governments, when opening their economies, should strengthen the welfare state in order to avoid a backlash by discontented electorates (cf. Ruggie 1982). The analytical argument is that a stronger welfare state is associated with higher levels of public support for economic openness and/or greater economic openness per se (as expressed by standard macro-economic indicators).

While recent research has demonstrated that political ideology and other non-economic factors (e.g., environmental attitudes) also play a role in shaping individuals' preferences *vis-à-vis* economic globalisation, we subscribe to the prevailing view that re-distributional aspects are still key. However, we argue that existing explanatory models of this kind have some blind spots with respect to two of their key determinants – namely human capital and social safety nets. We seek to fill these gaps by bringing in social capital.

In very general terms, one of the commonalities of the large number of definitions for social capital in the existing literature is that it concerns 'social relations that have productive benefits'.[2] Social capital describes the extent to which social networks bond similar people and bridge diverse people. Adler and Kwon (2002: 23), for example, note that social capital is 'the goodwill available to individuals or groups. Its source lies in the structure and content of

the actor's social relations. Its effects flow from the information, influence, and solidarity it makes available to the actor.'

Specifically, we argue that social capital, which is conceptualised as an individual-level concept in this article, influences individuals' views on economic openness both through its generalised trust and its structural dimension. For each of these two aspects of social capital we outline a distinct causal mechanism connecting it to preferences concerning economic globalisation. The first mechanism implicates that generalised trust can be conceived of as a personal factor endowment similar to human capital. Individuals with higher levels of generalised trust are expected to view economic transactions, including those beyond national boundaries, in a more positive light. The second mechanism, which is complementary to the compensation hypothesis, holds that individuals with higher levels of structural social capital, in the form of networks and social relations, can resort to a stronger nongovernmental safety net in times of need. This safety net reduces globalisation-induced job insecurity and should make such individuals more supportive of economic openness.

We empirically evaluate these theoretical claims with survey data for Switzerland and the United States. These are the only two countries for which there is high-quality survey data that includes information on social capital attitudes *vis-à-vis* economic openness, and a host of control variables. For both countries, the results indicate that generalised trust has a strong, positive effect on public opinion concerning economic openness, whereas structural social capital has no effect. Our empirical testing covers two countries that differ in important ways: one medium-sized country (in economic terms) with a highly open economy and a strong welfare state; and another country that has a very large and moderately open economy and a modest welfare state. Hence we are quite confident that our findings will be upheld when appropriate data for other countries becomes available and our findings can be re-examined on that basis.

The following section reviews the existing literature. We then develop the theoretical arguments. The remainder of the article describes the empirical research design and presents and discusses the results.

Literature review

The existing literature on the determinants of public support for economic openness illuminates both macro- and micro-level factors. Due to our focus in this article, we concentrate on micro-level studies in this literature review.

At the theoretical level, micro-level studies have revisited key assumptions of macro-level studies and have helped clarify and in part revise these assumptions.

The most prevalent claims in macro-level studies arguably derive from international trade theory. The factor-endowments (Heckscher-Ohlin) model of international trade holds that comparative advantages of countries in trade relations arise from differences in factor endowments – notably capital and labour (cf. Oatley 2010). When countries open their economies and trade, it ultimately results in an equalisation of factor prices globally. Such equalisation implicates an increase in the price of a country's abundant factor and a decrease in price of the scarce factor. Consequently, abundant factors of production benefit more from the opening process, compared to scarce factors (Stolper-Samuelson Theorem). We should thus expect that richer countries, which are more capital abundant but labour scarce than poorer countries, are more likely to experience an increase in protectionist policies with respect to labour-intensive forms of production. The reason is that in those economies, capital-intensive forms of production benefit from economic opening, whereas labour-intensive forms of production tend to lose. Conversely, we should expect poorer countries, which are more labour abundant but capital scarce, to be more protectionist with respect to capital-intensive forms of production.

Another popular argument is based on the specific factors (Ricardo-Viner) model of international trade. This model revises a key assumption of the factor endowments model. It argues that investments and skills often do not easily travel between economic sectors even within the categories of labour-intensive or capital-intensive production. For instance, hedge-fund managers losing their jobs because of foreign competition cannot easily move on to work for a biotech company, even though both sectors are very capital-intensive. While their skills (human capital) may be very valuable in one area of work, they may be less valuable in another. Similarly, transferring physical capital (e.g., production facilities) from one type of production (e.g., chemicals) to another (e.g., electronics) may be difficult or even prohibitively costly. This argument implies that the simple distinction between capital- and labour-intensive forms of production, and therefore also the implications for trade policies (protectionism), as noted above, can be misleading. The specific factors model thus asks for a more nuanced analysis of economic sectors and their comparative advantages (competitive position) under conditions of economic openness in order to explain when and where we should expect countries to adopt protectionist policies.

Several studies examine the micro-level implications of these macro-level arguments (e.g., Hays et al. 2005; Mayda & Rodrik 2005; Scheve & Slaughter

2001; Walter 2010). They focus on the determinants of individual attitudes towards economic globalisation or trade policy more specifically.[3]

The factor endowments model implies that higher skilled individuals (i.e., those with more human capital) in advanced economies should benefit from economic openness, whereas lower skilled individuals (i.e., those with less human capital) will experience income losses. Analogously, one specific micro-level implication in need of empirical testing is that more educated or skilled individuals should be more supportive of economic openness, relative to less educated or skilled individuals. If this is indeed the case, it supports the argument that attitudes concerning economic globalisation are a function of (expected) redistributive income effects of economic openness. The specific factors model assumes that economic factors can only move between sectors at a certain cost. Hence we should expect globalisation preferences also to vary by industry of employment, rather than only between the two factors capital and labour. Empirical tests offer considerable support for these arguments. Gabel (1998) observes that individuals form economic policy preferences reflecting their occupation-based economic interests in a common European market. Those expecting to lose income in the common market are more likely to oppose EU membership.

Based on data from the 1992 United States National Election Survey, Scheve and Slaughter (2001) seek to explain support for free trade (one of the key facets of economic globalisation) in the United States as a function of skill level and sector of employment. They find that factor type (skill level) has a stronger effect than the industry of employment. As expected, higher skilled individuals are more supportive of free trade. The weak sectoral effects, which cut against the specific factors argument, are attributed to rather high inter-sectoral labour mobility in the United States compared to other economies.

Kaltenthaler et al. (2004) use World Values Survey data from 1995 to 1997 for six countries (Australia, Germany, Norway, Spain, Switzerland, United States) to examine determinants of attitudes towards trade liberalisation. Similar to Scheve and Slaughter (2001), they observe that education (a measure of skill level) increases support for free trade. Again, this micro-level evidence is consistent with the macro-level factor endowments model.

Mayda and Rodrik (2005) examine the determinants of protectionist attitudes based on multi-country survey data from the 1995 International Survey Study Program (ISSP) and the World Values Survey (third wave, collected from 1994 to 1999). Again, their results support the factor endowments model: individuals with a higher education level are more likely to support free trade.

Schaffer and Spilker (2009) argue, however, that the general reaction of individuals to external risks is not as straightforward as proposed by the relevant literature. Hence they examine whether individuals in countries that

are more open to globalisation[4] actually feel more at risk, generally and conditional on whether they are likely to lose from globalisation.

Explanations of individual preferences *vis-à-vis* economic globalisation that rely exclusively on expected re-distributional implications have recently been challenged in two ways.[5] First, Hainmueller and Hiscox (2006) criticise previous studies that use the level of education as a proxy for individual skill level (human capital), saying that the associated argument focuses solely on expected economic re-distribution. They argue that the skill level variable also measures ideological and cultural characteristics of respondents that influence the ways in which individuals think about the consequences of economic openness. Their empirical analysis shows that the effect of education on trade policy preferences is very similar for individuals who are part of the active labour force and individuals who are not (in particular, retired persons). This result challenges the re-distributional logic because retired persons should be less worried about the distributional implications of skill levels. The (untested) implication of this empirical finding is that better educated persons are better able to understand and appreciate the societal benefits of an open economy.

Second, several studies have shown that non-economic factors are also important in explaining attitudes towards economic openness. Mayda and Rodrik (2005) observe that political orientation (on the left–right spectrum) is significantly correlated with attitudes towards free trade: respondents on the right are more pro-free trade. They note that 'some of our most interesting results pertain to the role of values, identity, and attachments in shaping individual attitudes on trade policy' (Mayda & Rodrik 2005: 1414). For instance, they find that individuals with stronger attachment to their neighbourhood and immediate community are less likely to support free trade. Scheve and Slaughter (2001: 287) observe that non-economic factors play a significant role in explaining protectionist attitudes – notably identification with the Democratic Party in the United States. Kaltenthaler et al. (2004) find that in some countries (Germany, Spain, Switzerland, United States) local or national geographic orientation, measured as identification of the respondent with a geographic entity (city, province, country), adds to protectionist sentiment. Finally, Bechtel et al. (2012) observe that individuals with stronger environmental preferences are less likely to support economic openness.

Motivated by claims that increasing economic openness has led to stagnating incomes and rising inequality in many advanced industrialised countries, several authors have sought to identify factors that could maintain or enhance public support for economic openness. Such (normative) worries have produced the compensation hypothesis, which is essentially a corollary of the arguments about the re-distributional effects of economic openness discussed above. The key claim is that state-sponsored support for the (assumed or

expected) losers of economic openness – for instance, in the form of more social security and unemployment benefits, or stronger labour protection laws – will make such individuals less afraid of and more supportive of economic openness (e.g., Ruggie 1982; Scheve & Slaughter 2007).

Empirical studies offer considerable support for this argument. For instance, a study by Hays et al. (2005) suggests that government spending programmes reduce opposition to liberalisation decisions.[6] Walter (2010), in a comprehensive test of the compensation hypothesis, finds that globalisation losers are more likely to feel economically insecure, and that such feelings are associated with preferences for welfare state expansion and an increased likelihood of voting for left parties.

The policy implications of such research are straightforward and important. Supporters of the compensation hypothesis tend to advocate stronger social safety nets – for instance in the form of a 'New Deal for Globalisation' (Scheve & Slaughter 2007). Those who are sceptical about the existing empirical support for the compensation hypothesis, and those who fear 'big government' for economic efficiency or ideological reasons, argue in favour of slowing down economic liberalisation – for instance by building more escape clauses into international economic institutions, such as the World Trade Organisation's agreements on trade in goods and services (e.g., Rodrik 2007).

Effects of social capital

The starting point for our contribution to the literature is that re-distributional arguments and their corollary – the compensation hypothesis – are very helpful in explaining public support for economic globalisation. We stipulate, however, that there are two shortcomings in this literature that can at least in part be addressed by accounting for an individual's social capital. First, the impact of individual factor endowments on globalisation preferences has thus far been reduced empirically to effects of education level and occupational income. Second, the compensation hypothesis has been conceptualised primarily in governmental terms. Bringing social capital into the analysis allows for a more comprehensive assessment of the determinants of trade and globalisation preferences.

As noted in the introduction, social capital is conceptualised along two dimensions: generalised trust and structural social capital. We thus submit that social capital is likely to affect individual attitudes *vis-à-vis* economic globalisation via its generalised trust dimension (i.e., trust in others) as well as due to its structural dimension (e.g., concerning networks). Accordingly, our theoretical argument connects in two ways to the existing literature on trade policy

preferences. First, the generalised trust aspect of social capital connects to the factor endowments hypothesis because one can conceive of generalised trust as an additional factor endowment similar to human capital. Second, the structural aspect of social capital, which focuses on social networks, connects to the compensation hypothesis in that it can serve as a proxy for nongovernmental social safety nets.[7] Both aspects of social capital are likely to have a positive effect on individuals' attitudes *vis-à-vis* economic openness, albeit for different reasons. Expressed at the most general level, the theoretical argument developed in this section thus holds that *individuals with more social capital are more likely to support economic openness*.

The literature emphasises that social capital is associated with individual and collective benefits (e.g., Nahaphiet & Ghoshal 1998; Adler & Kwon 2002; Portes 1998; Castiglione et al. 2008). Political scientists have, to date, put more emphasis on the collective benefits of social capital (e.g., Putnam 2000; Fukuyama 2000; Inglehart 1997). In our specific context, however, *individual benefits* are the key (e.g., Coleman 1988). Surprisingly, neither the scholarly literature on trade policy and globalisation attitudes[8] nor the literature on social capital[9] have thus far examined the relationship between social capital and public support for (or opposition to) economic openness.[10]

Building on Coleman (1988, 1990) and Putnam (1993), we distinguish two aspects of social capital: generalised trust and structural social capital. On this basis we identify the mechanisms through which these two forms of social capital affect individuals' benefits and costs of economic openness, and thus their support for or opposition to economic globalisation.

Generalised trust

We view the generalised trust aspect of social capital as an individual-level endowment that should help people view globalisation as less threatening. Following Coleman (1990), social capital constitutes an important resource for the individual similar to human capital. It 'is created when the relations among persons change in ways that facilitate action' (Coleman 1990: 304). In contrast to physical and financial capital, which is tangible, and human capital, which is somewhat less tangible, social capital, which comes to life only in relationships among people, is clearly the least tangible among the various manifestations of capital. Coleman (1990) notes, however, that social capital facilitates productive activity, as do the other forms of capital. As a consequence, similar to human capital (skills), social capital can be seen as an endowment that becomes more rather than less valuable with increasing use (Adler & Kwon 2002).

Against this background, generalised trust, which is considered to be the trust in other people, broadly defined and thereby pertaining to friends and strangers, can be seen as an important part of cooperative culture (Uslaner 2002). A high level of generalised trust means that individuals do not fear the intentions of other actors. This, in turn, leads to more cooperative behaviour in general (Putnam 1993). The productive strength of generalised trust lies in its ability to reduce transaction costs and facilitate mutually beneficial exchanges (Fukuyama 2000). As noted by La Porta et al. (1997: 333), trust is even more important for ensuring cooperation among strangers than for cooperation among people who have already interacted frequently and thus know each other.

According to Uslaner (2003), individuals with more generalised trust look at interactions with strangers as opportunities for forming new relationships. Moreover, what is particularly important in our context, they view 'open markets as positive forces in promoting growth rather than as threats to cultural and economic hegemony' (Uslaner 2003: 2). Similarly, Knack and Keefer (1997: 1252) argue that 'individuals in higher-trust societies spend less to protect themselves from being exploited in economic transactions'.

In view of these arguments, we propose regarding generalised trust as a distinct factor endowment along with other types of factor endowments, such as physical and financial capital, as well as conventional notions of human capital. Individuals who are better equipped with this factor – that is, individuals with stronger generalised trust – should be more favourably inclined not only towards economic transactions in general, but also towards economic globalisation. Since economic globalisation can be conceived of as a form of economic transactions with strangers, generalised trust should make individuals view this form of cooperation in a positive light as well. Hence we submit that individuals who are more trusting in their individual (economic) exchanges should also be more supportive of cooperative exchanges (such as those associated with economic globalisation) in general.

Structural social capital

Many definitions of social capital suggest that networks and social relations constitute a personal asset that can also be advantageous to the individual in economic terms – for instance in terms of opportunities in the labour market. Expressed in the most simple form: '[T]he folk wisdom that more people get their jobs from whom they know, rather than what they know, turns out to be true' (Sander 2002: 213). More academically, Baker (1990: 619), for instance, states that social capital is 'a resource that actors derive from specific social structures and then use to pursue their interests'. While, in general terms, social

capital is likely to emerge as a by-product of social interactions, individuals may in some cases also purposefully increase their social capital – for instance by joining certain clubs or maintaining certain relationships with a view to using them for some beneficial purpose in the future.

In addition to its value as a personal asset (factor endowment), social capital can also serve as a safety net for individuals exposed to risks emanating from economic openness. Hence the argument here connects directly to the compensation hypothesis discussed further above, but adds a hitherto unexplored dimension – namely nongovernmental safety nets. Burt (1992: 9), for example, argues that social capital consists of 'friends, colleagues, and more general contacts through whom you receive opportunities to use your financial and human capital'. This argument emphasises the social network dimension of social capital. It implies that individuals with more structural social capital are able to resort to nongovernmental safety nets in times of need. The extent to which individuals are socially embedded is thus likely to have implications for their views on economic globalisation. Individuals who are more socially embedded are more likely to be able to shield themselves from economic risks.

Previous research (Mayda & Rodrik 2005) has used social embeddedness in the neighbourhood as a control variable in empirical models explaining individual attitudes *vis-à-vis* economic openness. Building on these earlier studies, we go one step further and argue that general social embeddedness is most relevant in our specific context. Expressed in very simple terms, the rationale behind the compensating character of broader social networks has to do with the fact that the more people you know if you have lost your job, the more likely it becomes that you know someone who knows someone who can potentially help you to find a new job. Therefore, we assume that the mechanism through which people feel less threatened by a risk factor such as globalisation has to do with their general social embeddedness.

To summarise, we are interested in the implications of social capital, defined here as an individual-level concept, for attitudes *vis-à-vis* economic openness. We distinguish a generalised trust dimension and a structural dimension of social capital. Each of the two dimensions is associated with a distinct causal mechanism connecting social capital to individuals' views on economic openness. With respect to the existing literature, the hypothesis concerning effects of generalised trust can be regarded as complementary to the factor endowments argument. The hypothesis concerning effects of structural social capital adds another angle to the state-centred version of the compensation hypothesis. Both aspects of social capital are regarded as personal assets that can contribute to increasing opportunities and mitigate risks to which individuals are exposed in an open economy.

Empirical design

Country selection and data sources

To evaluate our theoretical arguments empirically we rely on survey data from two countries: Switzerland and the United States. The main requirement for adequate empirical testing in our context is that the same survey includes items both on attitudes *vis-à-vis* economic openness and on social capital, as well as a range of other factors that are commonly used as control variables in empirical models of public opinion on economic openness. In view of these requirements, the best available data is from the Swiss Environmental Survey (SES) 2007. This survey includes – next to questions about environmental attitudes and behaviour – a wide range of items concerning attitudes towards trade and economic openness, social capital and important control variables. The survey was conducted in November 2006 and March 2007 and was based on interviews with 3,369 individuals.

While many other studies on globalisation and/or trade preferences also use survey data for one country (see literature review above), it would of course be preferable to test our argument with multi-country survey data. Unfortunately, the few multi-national survey datasets that exist do not offer sufficient data to test our arguments in a meaningful way. The World Values Survey as well as the European Social Survey include items on social capital, but do not include items on trade preferences, whereas the International Social Survey Program (ISSP) includes items on trade preferences but not on social capital. Similarly, we could not find a Eurobarometer survey that includes both items on social capital and attitudes *vis-à-vis* economic openness.

The only partial exceptions are the American National Election Studies (NES) of 1996 and the World Values Survey (WVS) 1995. These two surveys include items on social capital and globalisation preferences, but they are still much less suitable for our purposes than the Swiss survey. For instance, the NES 1996 offers no information for many of the control variables that are standard in explanations of globalisation preferences. The WVS 1995 offers no information on structural social capital. We thus use the NES and WVS data to re-assess our findings, rather than for the principal analysis. Interestingly, these robustness checks support our main findings.

Future research will have to show, once the necessary data becomes available, whether our results are upheld in other European countries. However, given that we examine a European country that is economically very open to world markets (in fact more open than many European Union Member States) and has a rather strong social welfare system, it is possible that the

results for other European countries, which have similar characteristics, will be easily comparable. Moreover, as shown further below, the results for the United States (the 1996 NES) and the results for a multi-country sample (the 1995 WVS) are quite similar to those for Switzerland, suggesting that the effects of social capital we find in our analysis are at least to some extent robust to variation in the economic openness of countries and the characteristics of their social welfare system.

Variables and data

The SES 2007 includes several items concerning attitudes towards globalisation and protectionism. To measure support for economic globalisation, we use two items pertaining to two slightly different aspects of it. The first item asks the respondent to state on a five-point scale whether she or he agrees with the following statement:

> When Switzerland opens its economy *vis-à-vis* foreign countries and exposes its companies to more international competition, this will make the companies more competitive and will increase our welfare in the long-term.

The second item asks the respondent to state (again on a five-point scale) whether she or he agrees with the following statement:

> Opening Switzerland towards international markets, which is often referred to as globalisation, has more disadvantages than advantages for our country.

To facilitate the interpretation of statistical results we re-scaled the second item, such that higher values on the scales of both variables refer to individuals who see more advantages in globalisation than disadvantages. Table 1 shows

Table 1. Distributions on the dependent variables

	Globalisation = welfare	Globalisation = advantages
Do not agree at all	88	125
Rather do not agree	354	506
Agree/disagree only partly	839	845
Rather do agree	880	739
Completely agree	309	205

the distributions across the response categories. It indicates that the distributions of the two items are quite similar, though globalisation attitudes are somewhat more negative for the second item.

In line with our theoretical arguments, we use three items from the SES 2007 to measure social capital: one that captures generalised trust and two that capture structural social capital. The first item measures whether (on a five-point scale) the respondent expresses *generalised trust in people*. The second item measures *the number of active memberships in associations*, and the third measures whether an individual has 'very often'/'often'/'sometimes'/'rarely'/'no' *contact with his/her neighbours*. All three items are commonly used in the social capital literature. Including two different items for structural social capital might allow us to empirically distinguish whether embeddedness in the neighbourhood or more broadly defined social networks such as associations are more relevant in terms of their compensatory (social safety net) effect.

In the literature there is an ongoing debate about whether to use specific indicators for social capital side-by-side or to aggregate them. The most common approach is to use the specific indicators side-by-side (Knack 2002; Freitag 2006). Other authors have emphasised theoretical and/or empirical commonalities between different measures of social capital and have asked for aggregation of indicators that proxy for the same or a similar latent construct (e.g., Putnam 2000; Paxton 1999; Van Deth 2003). In our specific context, we take the side-by side approach. Because we derive distinct causal arguments from what the literature commonly regards as the two key facets of social capital it makes sense *a priori* not to aggregate but to try and separate the generalised trust and structural dimension of social capital and identify their partial effects on attitudes *vis-à-vis* globalisation – though we expect both to contribute, for different reasons, to more positive attitudes *vis-à-vis* economic openness.

Although our reasons for opting for this approach pertain directly to our theoretical argument, we still examined whether a separate analysis of the two types of social capital makes sense empirically. Similar to Freitag and Traunmüller (2008), we used factor analysis to build a common indicator of social capital. Interestingly, the different items do not seem to have much in common and exhibit a strong uniqueness. This would have made it impossible to produce a meaningful social capital index. This empirical finding adds support for our theory-based decision to examine the effects of distinct types of social capital.

Some authors have argued that both social capital of individuals and their preferences regarding globalisation may be related to personality traits, such as happiness or personal optimism (Delhey & Newton 2003). To control for the possibility that the effect of social capital (and particularly generalised trust)

on attitudes towards economic globalisation is influenced by a person's general satisfaction with life, we include three variables. The most general variable relies on an item that asks respondents to state on a ten-point scale *how satisfied they are with their life in general*. The second variable captures on a ten-point scale *how happy* the individual is. The third variable relies on an item that asks whether the respondent 'very often'/'often'/'sometimes'/'rarely'/'never' *feels lonely*. We expect the first two variables to be associated with more positive views on economic openness and the loneliness variable to be associated with a more negative view on economic openness.

Our argument on generalised trust holds that trust is a personal (factor) endowment that enables people to view economic interactions with strangers as opportunities rather than threats. To make sure that this effect is not confounded by an individual's trust in political institutions we include a control variable that measures *trust in parliament*. We assume that people with more trust in their country's political institutions are more likely to hold positive views on globalisation. It is important to control for the effect of political trust because this effect may indirectly capture the compensation hypothesis effect, whereas the generalised trust effect of interest to us is of an entirely different (nongovernmental) nature. To the extent that individuals trust their political institutions they are also more likely to be satisfied with the way government-sponsored safety nets protect them from globalisation risks. If this argument holds true, individuals exhibiting more trust in political institutions are more likely to support economic openness.

To be able to clearly distinguish the social capital-related structural effect from effects emanating from the state-centred compensation hypothesis effect we control for government-sponsored safety nets, relying on five indicators – all of which vary on the cantonal level in Switzerland. We include cantonal social security expenditures divided by total expenditure and general social expenditure divided by total expenditures to capture the generosity of each canton's welfare system. To control for the extent to which a canton forces its citizens to find a new job when unemployed, we rely on the proportion of unemployed people whose social benefits were cancelled, and a dummy variable measuring whether there are cantonal unemployment benefits. In line with the compensation hypothesis, we expect individuals in cantons with stronger social safety nets to hold more positive views on economic openness.

Exposure to open markets is controlled for in several ways in our empirical models. First, we include the proportion of foreigners with residence in the respective canton to capture the competitiveness of the labour market. Second, we include the geographic distance from each respondent's place of residence to the nearest international border. The latter variable controls for two potentially confounding effects: locations closer to the border may

experience more economic competition (e.g., in the labour market, or in close-distance international trade in goods and services); moreover, individuals living closer to an international border may be more used to economic globalisation. The former could contribute to more negative, the latter to more positive views on economic openness.

In addition to the aforementioned control variables, most of which have not been included in prior research on globalisation preferences, we also include control variables that are common in the relevant literature. Following the conventional factor endowment model, we include a person's skill level, which is measured by the number of years of education received. To proxy for whether a person is a capital owner, we follow Hays (2009) and rely on the log of a person's income. In line with previous research, we expect both variables to be associated with more positive views on globalisation.

Following the specific-factors model, we include several control variables that capture a respondent's profession according to sectoral lines. First, we include several dummy variables that measure whether the respondent works in the first sector (agriculture), the second sector (manufacturing) – the third sector (services) serves as the baseline category – or is unemployed or retired. We expect employees in the first and second sectors, as well as employees in more risk-exposed sectors, to hold more negative views on globalisation.

To better grasp the extent to which a person's job might be at risk due to economic globalisation, we follow the existing literature and use industry specific foreign direct investment (FDI) inflows and outflows, scaled by the respective industry's gross value added as well as the number of foreigners who work in this industry, scaled by total employment. The data used for these variables is from the Swiss National Bank, which allows us to differentiate among twelve industries. These detailed measurements make it possible to simultaneously test the explanatory power of the different traditional trade theory models (factor endowments versus specific factors models).

Finally, we control for demographic characteristics, such as gender, age, foreign citizenship, and whether the respondent lives in the Italian- or French-speaking part of Switzerland (the German-speaking part serves as the reference category). We also control for political ideology, using a ten-point scale on which the respondents were asked to locate themselves – higher values on this scale are to the right of the political spectrum.

As noted above, to the best of our knowledge the only other surveys that include items on social capital and preferences *vis-à-vis* economic openness are the NES 1996 and the WVS 1995. Both surveys have serious limitations with respect to our data needs. However, the NES 1996 includes items both for generalised trust and structural social capital, whereas the WVS 1995 covers only generalised trust. Hence we cross-examine our main findings with the

NES 1996 data, which are also used in the influential studies of Scheve and Slaughter (2001) and Hainmueller and Hiscox (2006). The results based on the WVS 1995 data are included in Appendix Table A.

The studies by Scheve and Slaughter and Hainmueller and Hiscox use the following item to measure individual attitudes towards globalisation:

> Some people have suggested placing new limits on foreign imports in order to protect American jobs. Others say that such limits would raise consumer prices and hurt American exports. Do you favor or oppose placing new limits on imports, or haven't you thought much about this?

Since the respondents could only answer whether they favoured or opposed this statement, this item resulted in a binary dependent variable. We coded those individuals who answered that they favour limiting exports as '0' and those who answered that they oppose limiting exports and are therefore less-protectionist as '1'.

The NES 1996 is more limited than the SES with respect to data for the dependent variable we are interested in, and it is much more limited with respect to control variables we think should be included in such models (notably those discussed above). The NES dataset is also ten years older than the Swiss dataset, which might be important because economic globalisation advanced quite rapidly from the mid-1990s up to the 2008 financial crisis. Hence our choice to use the Swiss data for the main analysis. However, the NES 1996 includes two social capital items that we regard as appropriate for our purposes: *trust in people* (a dummy variable that takes on the value '1' if people answered that they tend to trust other people); and *membership in associations* (a count variables that measures the number of memberships). It also includes some items that allow us to include at least some of the control variables included in the analysis of the Swiss data.[11]

Results

Switzerland

We use ordered logit analysis to test our argument that individuals with more social capital are more likely to hold positive views on globalisation. The main results are displayed in Table 2. The results offer strong support for the generalised trust argument, but do not support the structural social capital argument. Trust in other people is strongly positively associated with a more favourable attitude towards globalisation – that is, individuals characterised by

Table 2. Ordered logit results

	Globalisation = welfare	Globalisation = advantages
Membership in associations	0.02 (0.02)	0.03 (0.02)
Contact with neighbours	–0.04 (0.05)	–0.02 (0.05)
Trust in other people	0.08* (0.05)	0.11** (0.05)
Trust in parliament	0.16*** (0.06)	0.14** (0.06)
Satisfaction with life	–0.00 (0.04)	–0.01 (0.04)
Happiness	0.01 (0.04)	0.01 (0.04)
Loneliness	–0.02 (0.06)	–0.12* (0.06)
Left/right placement	0.03 (0.02)	–0.02 (0.02)
Distance to next border	0.00 (0.00)	0.00 (0.00)
Female respondent	–0.32*** (0.10)	–0.10 (0.10)
Age	0.13*** (0.04)	0.03 (0.04)
Log of income	0.57*** (0.10)	0.57*** (0.10)
Years of education	0.53*** (0.19)	0.69*** (0.19)
Foreigner	0.43** (0.18)	0.43** (0.18)
French part of Switzerland	–0.11 (0.20)	–0.04 (0.20)
Italian part of Switzerland	–0.48 (0.32)	0.13 (0.32)
First sector	0.63 (0.95)	–0.23 (0.93)
Second sector	–0.22 (0.21)	–0.37* (0.21)
Retired	0.19 (0.17)	0.01 (0.16)
Unemployed	–0.12 (0.18)	–0.12 (0.17)
Canton: unemployment benefits	–0.15 (0.19)	–0.11 (0.19)
Canton: share of foreigners	0.10 (0.44)	–0.71 (0.46)
Canton: social security spending/total spending	1.38 (4.11)	–0.68 (4.20)
Canton: social spending/total spending	1.87 (3.42)	–2.59 (3.48)
Canton: people with cancelled unemployment benefits	0.62 (1.64)	0.28 (1.66)
Sector: FDI outflows/gross value added	2.85** (1.37)	2.79** (1.35)
Sector: FDI inflows/gross value added	–9.80 (6.25)	–8.15 (6.07)
Sector: proportion of foreigners	0.44 (0.83)	–0.30 (0.82)
Threshold 1	0.20 (0.92)	–1.50 (0.92)
Threshold 2	2.10** (0.91)	0.49 (0.92)
Threshold 3	3.80*** (0.92)	2.05** (0.92)
Threshold 4	5.95*** (0.92)	4.14*** (0.92)
Observations	1,656	1,624

Notes: Standard errors in parentheses. *** $p < 0.01$; ** $p < 0.05$; * $p < 0.1$.

higher levels of generalised trust are more likely to believe that globalisation increases welfare and has more advantages than disadvantages. This finding is in line with our hypothesis that generalised trust is a personal factor endowment that is valuable under conditions of greater economic openness. The hypothesised positive effect of the structural facet of social capital, however, turns out to be insignificant in the empirical analysis. This result holds both for the membership in associations and the indicator measuring embeddedness in the neighbourhood.

Turning to the effects of government-sponsored safety nets, we observe that none of these variables – cantonal unemployment benefits, cantonal social spending and so on – is significantly associated with attitudes towards economic globalisation.[12] In contrast, political trust seems to play an important role. Individuals expressing trust in their country's political institutions are more likely to view globalisation in a more favourable light. This finding offers some, albeit very indirect, support for the conventional version of the compensation hypothesis.

As to the predictions of the two trade models, we observe that the factor endowments model receives support, whereas the specific factors model does not. Both better-educated and richer individuals are more likely to associate economic globalisation with long-term welfare and with more advantages than disadvantages. In contrast, the sector of employment does not have any influence on attitudes towards globalisation. As expected, however, individuals who work in sectors that receive a lot of foreign investment associate globalisation with an increase in welfare and with more advantages than disadvantages.

With respect to the other control variables, only the dummy variable measuring whether the respondent is a foreign citizen has a statistically significant effect in both regressions. This result suggests that immigrants view economic globalisation more positively than Swiss citizens. In the regression using the item that connects globalisation with an increase in welfare, we observe that women tend to express a more negative attitude towards economic globalisation, whereas older respondents are more likely to agree with the statement that globalisation is associated with an increase in welfare.

To obtain a better idea of how strong the observed effects are in substantive terms, we now look at predicted probabilities. Table 3 shows the probabilities of falling into any of the five response categories for the question of whether globalisation has more advantages than disadvantages. It expresses those probabilities at varying values of generalised trust and income, while all other variables are kept at their median value. As can be seen in Table 3, the probability of falling into a category that expresses a more positive globalisation attitude grows with increasing trust in other people. This finding holds true no matter whether we consider individuals who are relatively poor – belonging to

Table 3. Predicted probabilities at varying levels of trust and income

	Trust 1 income 10%	Trust 2 income 10%	Trust 3 income 10%	Trust 4 income 10%	Trust 5 income 10%	Trust 1 income 90%	Trust 2 income 90%	Trust 3 income 90%	Trust 4 income 90%	Trust 5 income 90%
Pr(y = not agree|X)	0.09	0.08	0.07	0.07	0.06	0.04	0.04	0.04	0.03	0.03
Pr(y = 2|X)	0.33	0.31	0.29	0.27	0.26	0.20	0.19	0.18	0.16	0.15
Pr(y = 3|X)	0.36	0.36	0.37	0.37	0.37	0.36	0.36	0.35	0.34	0.33
Pr(y = 4|X)	0.19	0.21	0.22	0.24	0.26	0.31	0.33	0.35	0.37	0.38
Pr(y = agree|X)	0.04	0.04	0.04	0.05	0.05	0.07	0.08	0.08	0.10	0.10

the 10th percentile – or relatively rich – belonging to the 90th percentile. In other words, our results suggest that social capital in the form of generalised trust can compensate for low income. We interpret this finding in the sense that generalised trust can be considered a particular type of personal factor endowment that can offset increased risks emanating from economic openness – assuming, as is commonly done, that low-income individuals in advanced economies are facing higher globalisation risks.

The same pattern is observable for the effect of generalised trust on attitudes towards globalisation among respondents with differing levels of education. As shown in Table 4, the likelihood of viewing globalisation in negative terms decreases with higher levels of generalised trust, both among individuals with lower levels of education and individuals with a high level of education. This implies that high levels of generalised trust can compensate for low levels of education; respondents with high generalised trust but a low level of education tend to view globalisation more positively than those with lower levels of trust.

Table 5 shows that this pattern is also observable for individuals who work in sectors that receive different levels of foreign investment. Again, respondents with higher levels of generalised trust, despite working in a sector that has only a minimal level of foreign investment outflow (i.e., a sector that benefits least from globalisation), associate globalisation with more advantages than those respondents with lower levels of trust.

United States and other countries

While many other studies on preferences *vis-à-vis* economic openness also focus on one country, doing so still begs the question of whether the results are relevant to other countries. While it is currently impossible, due to lack of appropriate data, to reliably test our theoretical arguments for other European countries, we are able to re-assess our main results with data for the United States.[13]

Since we now deal with a binary dependent variable, we use logit regression analysis instead of ordered logit. The results shown in Table 6 support the results obtained for Switzerland. Again, individuals with higher levels of generalised trust in other people are more likely to oppose putting limits on imports and are thus less protectionist than individuals with less trust in other people. Furthermore, the results show that the effect of generalised trust is not driven by trust in political institutions since we control for the trust people put in their government. Again membership in associations does not affect individuals' attitude towards economic globalisation. Overall, the analysis using data from the NES 1996 survey supports our conclusion that the generalised

Table 4. Predicted probabilities at varying levels of trust and education

	Trust 1 education 10%	Trust 2 education 10%	Trust 3 education 10%	Trust 4 education 10%	Trust 5 education 10%	Trust 1 education 90%	Trust 2 education 90%	Trust 3 education 90%	Trust 4 education 90%	Trust 5 education 90%
Pr(y = not agree|X)	0.07	0.06	0.06	0.05	0.05	0.04	0.03	0.03	0.03	0.02
Pr(y = 2|X)	0.28	0.27	0.25	0.23	0.22	0.18	0.17	0.15	0.14	0.13
Pr(y = 3|X)	0.37	0.37	0.37	0.37	0.37	0.35	0.34	0.33	0.32	0.31
Pr(y = 4|X)	0.23	0.25	0.27	0.28	0.30	0.35	0.36	0.38	0.40	0.41
Pr(y = agree|X)	0.05	0.05	0.06	0.06	0.07	0.08	0.10	0.10	0.12	0.13

Table 5. Predicted probabilities at varying levels of trust and FDI outflow

	Trust 1 FDI minimum	Trust 2 FDI minimum	Trust 3 FDI minimum	Trust 4 FDI minimum	Trust 5 FDI minimum	Trust 1 FDI maximum	Trust 2 FDI maximum	Trust 3 FDI maximum	Trust 4 FDI maximum	Trust 5 FDI maximum
Pr(y = not agree|X)	0.06	0.05	0.05	0.04	0.04	0.04	0.03	0.03	0.03	0.03
Pr(y = 2|X)	0.26	0.24	0.22	0.21	0.19	0.19	0.17	0.16	0.15	0.14
Pr(y = 3|X)	0.37	0.37	0.37	0.37	0.36	0.36	0.35	0.34	0.33	0.32
Pr(y = 4|X)	0.26	0.28	0.29	0.31	0.33	0.34	0.35	0.37	0.39	0.40
Pr(y = agree|X)	0.05	0.06	0.07	0.07	0.08	0.08	0.09	0.10	0.11	0.12

Table 6. Logit results, NES 1996

	Oppose limiting imports
Black	–0.30 (0.32)
Indian	–0.51 (0.75)
Asian	0.01 (0.54)
Male	0.62*** (0.18)
Schooling	0.20*** (0.04)
Ideology	0.15* (0.09)
Age	0.00 (0.01)
Income	0.04 (0.03)
Unemployed	–0.41 (0.51)
Retired	–0.57** (0.29)
First sector	–0.16 (0.76)
Second sector	–0.32 (0.23)
Membership in associations	–0.01 (0.03)
Trust	0.53*** (0.16)
Trust in government	–0.42*** (0.16)
Constant	–3.17*** (0.69)
Observations	797

Notes: Standard errors in parentheses. *** $p < 0.01$; ** $p < 0.05$; * $p < 0.1$.

trust aspect of social capital can be regarded as a distinct type of personal factor endowment that has a positive effect on individuals' views on economic globalisation.

We also re-examined our main findings using WVS 1995 data for a larger sample of countries. This robustness check is admittedly very crude, notably because this survey offers data only for generalised trust. However, as shown in Appendix Table A, the results reaffirm our main findings. Generalised trust has a significant, positive effect on attitudes towards free trade.

Discussion and conclusion

Existing explanations of preferences *vis-à-vis* economic openness view such preferences primarily as a function of re-distributional implications of openness, though recent research shows that non-economic factors also play an important role. In this article we argue that bringing social capital into the analysis can improve our understanding of why individuals support or oppose economic openness.

Our theoretical argument focuses on the effects of what the social capital literature regards as the two key aspects of the phenomenon: generalised social trust and structural social capital. Both types of social capital can be regarded as personal assets that help in mitigating economic risks individuals are exposed to in an open market. Individuals characterised by more generalised trust are more likely to view economic openness as an opportunity, rather than as a threat. Generalised trust thus has similar (positive) effects on public support for economic openness as other factor endowments, such as skills/education and financial capital. The structural dimension of social capital, in turn, connects to a corollary of the factor endowments argument – that is, the compensation hypothesis. Individuals' social networks can, in this context, be regarded as a nongovernmental social safety net. The resulting hypotheses hold that individuals characterised by more generalised trust and stronger social networks are, for distinct reasons, more likely to support economic openness.

We evaluated these two hypotheses using the best available survey data; this data offers both information on social capital and attitudes *vis-à-vis* economic openness, as well as a wide range of control variables. The findings offer strong support for the hypothesis concerning the effects of generalised social trust: individuals with more generalised trust view economic openness in a more positive light. Our results do not support the argument that more structural social capital makes individuals adopt a more favourable perspective on economic openness.

Interestingly, our finding that generalised trust matters, but that the structural dimension of social capital has no effect is in line with results by Knack (2002), who finds the same for the (macro-level) effect of social capital on the quality of government. It also corresponds to results by Rice (2001), who examines the effect of social capital on the performance of local governments in the American state of Iowa.

Further research should focus on possible reasons for the finding concerning structural social capital. One possible explanation is that the indicators we use for structural social capital (membership in associations, contact with neighbours), which are in fact very widely used in the social capital literature, do not capture some key elements of private social networks. For example, professional social networks – another aspect of structural social capital – might be more important when it comes to mitigating economic risks. Another possibility is that the indicators used capture contradictory effects that end up offsetting each other. For instance, greater participation in associations and more contact with neighbours may well indicate stronger social embeddedness of individuals, which in turn may help shield them from economic risks. But it is also possible that more inward-looking, risk-averse and perhaps even more

nationalistic individuals are more likely to exhibit greater local social embeddedness. Disentangling such offsetting effects requires both more nuanced indicators of structural social capital and also additional control variables (e.g., indicators of general economic risk aversion, nationalist orientation).

Finally, our results strongly suggest that future surveys on public attitudes *vis-à-vis* economic openness should include items on social capital, including also more sophisticated items for structural social capital. Switzerland and the United States – the only two countries for which we have suitable data for testing our arguments – differ on important structural dimensions; these include economic size, openness, labour market regulation, corporate governance and the extent of the welfare state. Moreover, the Swiss data is quite recent (2006/2007), whereas the American data is from the mid-1990s. The fact that our results for these two countries are still very similar suggests that findings for other advanced industrialised countries could also be similar. However, we clearly need more empirical research to draw any firm conclusions in this respect.

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Appendix Table A. Robustness check using WVS 1995 data (Logit results)

	Positive view of trade liberalisation
Generalised trust	0.43*** (0.063)
Trust in government	0.14** (0.070)
Trust in parliament	0.00 (0.061)
Male	0.15*** (0.046)
Education	0.12*** (0.019)
Right-wing political attitude	–0.01 (0.013)
Age	–0.01*** (0.002)
Income	0.04* (0.023)
Unemployed	0.02 (0.089)
Retired	–0.06 (0.091)

Appendix Table A. Continued

	Positive view of trade liberalisation
Agricultural sector	0.04 (0.152)
Constant	–1.33*** (0.215)
Observations	43,110

Notes: The World Value Survey provides data on 43,110 individuals' preferences towards trade liberalisation. Interviews took place in 55 countries during 1994–1999. Robust standard errors in parentheses clustered by country. *** $p < 0.01$; ** $p < 0.05$; * $p < 0.1$.

Notes

1. A related argument – the specific factors hypothesis – holds that human and other forms of capital cannot easily be transferred from one sector to another. Hence this argument expects differences in individual preferences for economic openness to be determined also by sectoral characteristics, rather than more broadly defined factor endowments (notably human and financial capital) alone. We review this literature in the following section.
2. See www.socialcapitalresearch.com/definition.html; see also Adler and Kwon (2002).
3. Some recent work also focuses on immigration, which can be conceptualised as a form of economic openness that concerns one of the main factors of production: labour (see, e.g., Hainmueller & Hiscox 2006).
4. The actual level of economic openness (i.e., the sum of exports and imports divided by gross domestic product) varies considerably between European countries, with countries such as Greece, France or Italy experiencing relatively low levels of globalisation, compared to countries with a higher level of economic openness, such as Luxembourg, Belgium or Ireland.
5. Yet another line of research focuses on the distributional consequences for consumers. Baker (2005), for instance, presents cross-country evidence suggesting that individuals' consumption bundles with respect to exportables or imported goods correlate with trade policy preferences. Those consuming mostly exportables tend to be more protectionist than strong consumers of imported goods.
6. See Hays (2009: Chapter 2) for a theoretical and empirical analysis of the macro relationships between economic openness and government spending.
7. Another aspect of social capital that is sometimes taken into account is a norms and cultural dimension. However, since this dimension has no clear connecting point to the study of trade preferences, we limit our discussion of social capital to its generalised trust and its structural dimension.
8. A few studies on attitudes *vis-à-vis* economic openness include a variable measuring the identification of individuals with their country or community. For example, Mayda and Rodrik (2005) find that individuals with stronger attachment to their neighbourhood and immediate community are less supportive of economic openness. Variables such as these are to some extent reminiscent of some indicators of social capital, but in fact not equivalent (see further below). In any event, the existing trade policy literature does not offer any theoretical arguments connecting such

indicators to social capital and its potential effect on individual attitudes towards globalisation.

9. The social capital literature offers a wealth of insights into the causes and implications of this phenomenon. Besides focusing on how to measure social capital, most studies examine how variation in formal political institutions affects social capital (e.g., Freitag 2006), and whether countries with more social capital experience stronger economic growth and socio-economic development (e.g., Isham et al. 2002; Knack & Keefer 1997) or perform better on accounts of education, public health and environmental sustainability (e.g., Grafton & Knowles 2004).
10. One partial exception is Schiff (2002) who, in a theoretical paper, uses the concept of social capital to explain why rich countries prefer free trade over free migration. He notes that according to standard international trade theory countries should be indifferent between free trade and free migration because both of them can lead to factor price equalisation. Rich countries, however, appear to prefer free trade over free migration. Schiff accounts for this preference in terms of the different ways in which the movement of goods and the movement of people affect social capital in countries of origin and destination.
11. With regard to the selection of the control variables and their coding we follow Hainmueller and Hiscox (2006).
12. Similar to the social capital variables, we tried to build a common indicator for government-sponsored safety nets using factor analysis. Although it was possible to produce a meaningful aggregation of the different variables, this common indicator turns up insignificant in the regression on attitudes towards globalisation. Hence we decided to stick to the approach used in most of the literature and use the different indicators of government-sponsored safety nets side by side.
13. As described above, the WVS offers some cross-country data including several European countries. However, since it is impossible to measure the structural dimension of social capital, the results are hardly comparable to the results presented in this article. Nevertheless, the findings based on the WVS support our conclusion that generalised trust serves as an additional endowment rendering people more likely to see economic globalisation positively.

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