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*THE INDIVIDUAL SOURCES OF  
ECONOMIC NATIONALISM:  
EVIDENCE FROM SURVEY DATA*

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## **Abstract**

Political leaders in troubled democracies around the world have resorted to an anti-foreign rhetoric to justify the adoption of policies restricting foreign imports, and the free flow of capital and people, allegedly in defense of the national interest. And this rhetoric has resonated positively with large sectors of the electorate in those countries. A similar trend, exploiting a nationalistic sentiment for economic purposes, is observed in campaigns in the United States to *buy American*. Most studies to date have analyzed the causes and consequences of economic nationalism at the state level. However, there is good reason to believe that sources of economic nationalism should be traced at the individual level: some individuals might be willing to embrace economic nationalism purely on self-interest, yet others will be forced to trade off material and ideational preferences in order to support the national industry. The existence of this tradeoff at the individual level has important implications for coalition formation on trade, investment and migration policy-making. While recent studies suggest that cultural and ideational interests are likely to influence individual attitudes towards trade, one of the central policy dimensions in economic nationalism, the empirical content of the tradeoff between material and non-material preferences remains untested to date. Using data from the International Social Survey Program (ISSP 2003) we explore whether the effect of nationalism on attitudes towards protectionism varies with the individual's position in the economy. We find preliminary evidence that nationalism systematically affects attitudes towards trade in the United States, but less so in the Philippines. We also find that the effect of nationalism is conditional on individuals' skill, or position in the economy.

“[The] world in which we live is one best described by the ideas of economic nationalism.”  
Robert Gilpin<sup>1</sup>

## 1 Introduction

In recent years political leaders in troubled democracies of South America -Chavez in Venezuela, Kirchner in Argentina and Morales in Bolivia, among others- have resorted to an anti-foreign rhetoric in defense of the national interest. This rhetoric has resonated positively with the electorate in these countries. In the United States we find a similar trend in individuals' disposition to “buy American” (Frank 1999).<sup>2</sup> Most studies to date have analyzed economic nationalism at the state level, stressing the need to subordinate economic activities to the “goal of state building and the interests of the state” (Gilpin 1987, pp. 31).<sup>3</sup> In practice, economic nationalism has resulted in the adoption of import substituting and restrictive policies to benefit some industries, even under conditions when the economy would be better served by relying on the principle of comparative advantage. Moreover, the policy choices associated with economic nationalism are also likely to have distributive consequences, which have not been fully accounted for in the literature. Are those hurt from restricting the flows of goods, investment and workers across national borders willing to embrace protectionism and transfer resources to the *national industry* and other groups in society in order to advance the national interest? Is the psychological value obtained from the progress of the national industry enough to compensate for material losses? Or is economic nationalism simply the ideology embraced by those benefitting from restrictive policies, who are able to impose their will on the rest of society? The answer to these questions has important implications for our

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<sup>1</sup>Gilpin 1987, pp. 25.

<sup>2</sup>From the Boston Tea Party, through the Great Depression, the Japanese “Yellow Peril” of the 1970s, to recent calls to boycott Chinese imports and investment in US soil, *buy American* campaigns are far from a novel theme; in fact, they can be traced to “the very founding of the nation” (Frank 1999, pp. x).

<sup>3</sup>See, inter alia, Hieronymi & Behrman 1980; Mayall 1990; Berend 2000; Helleiner 2002, 2003; Pickel 2003.

understanding of the politics of foreign economic policy.

The aim of this paper is to explore whether the sources of economic nationalism are found at the individual level. In particular, we analyze under what conditions and to what extent are those individuals hurt by restrictive commercial policies willing to support import restrictions to protect the national industry, trading-off material benefits for symbolic ones. The existence of this tradeoff at the individual level was originally formulated by Harry Johnson (1965). Recent work on the determinants of trade policy attitudes have unveiled a relationship between protectionism and non-economic factors such as nationalism (O'Rourke & Sinnott 2001; Mayda & Rodrik 2005; Baker 2003, 2005) and the role of education in fostering cosmopolitanism (Hainmueller & Hiscox 2006). However, the empirical content of the tradeoff between material and non-material benefits remains untested to date.

In the empirical section of the paper we extend the analysis of the effect of nationalism on individuals' attitude towards globalization in general, and trade in particular, using data from the International Social Survey Program (ISSP 2003) National Identity Module for two countries, the United States and the Philippines.<sup>4</sup> Our preliminary findings suggest that nationalism at the individual level is only partly explained by their endowment of skill, proxied by educational attainment. Next, we analyze whether material interests, derived from their position in the economy, and nationalism affect individuals' attitudes towards international trade. Our results suggest that skill levels and sector of employment are correlated with reported protectionist stances, which is consistent with the findings in Scheve & Slaughter (2001), O'Rourke & Sinnott (2001), Mayda & Rodrik

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<sup>4</sup>These two countries vary in one important dimension: their relative endowment of skill which allow us in part to explore the differential effect skill endowment on trade policy preferences of individuals. Since we measure skill as educational attainment, and education could have an independent effect on nationalism, we would expect the educated in both countries to be more predisposed towards openness, yet less so in the skill scarce country. However, skill endowment and education are not the only difference between the United States and the Philippines. Hence, we plan on extending the analysis to the rest of the countries covered by the ISSP 2003, and to responses on attitudes towards other areas of foreign economic policy included in that survey.

(2005) using survey data for earlier years. We also find evidence that the effect of nationalism is conditional on individuals' position in the economy, providing partial support to Johnson's hypothesis.<sup>5</sup>

The following section places the paper in the literature on nationalism and on individual trade policy preferences. Next, we discuss the argument about the conditional effect of nationalism on attitudes towards foreign imports. Section ?? presents the results from our preliminary analysis of the survey data for the United States and the Philippines. Section ?? summarizes our findings and discusses possible extensions.

## **2 Economic Nationalism and Attitudes towards Trade**

### **2.1 Economic Nationalism**

Even though there is ample controversy on the origin and definition of nationalism (Gellner 1983; Hutchinson & Smith 1996; Hechter 2000; among others)<sup>6</sup> there is a shared belief in the literature that individuals having a strong sense of national identity are likely to gain a psychological benefit from policies aimed at favoring the collective, and are hence willing to sacrifice material advantages to that end (Calhoun 1991; Hechter 2000).<sup>7</sup> Despite this shared belief, the link between economic and political nationalism in the literature remains weak. Scholarly work on political nationalism has focused on the congruence between nations and states, and the ensuing conflicts when their correspondence is low; the extant literature on economic nationalism, on the other hand, has

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<sup>5</sup>Elsewhere we explore the interaction of nationalism and material interests on individuals' attitudes towards integration in other issue areas such as investment, immigration, or restrictions on foreign ownership of land. Note that the survey instruments used in our empirical analyses do not allow us to test directly the existence of the tradeoff between material and psychological benefits, and the marginal rate of substitution between these two dimensions, which is implicit in Johnson's hypothesis. Such test would require an experimental design that would force individuals to quantify that tradeoff.

<sup>6</sup>The literature follows Gellner's (1983) definition of nationalism as a political principle which holds that the nation and the state should be "congruent" and which developed in the wake of the French Revolution.

<sup>7</sup>Nationalists, according to Hechter, are "people who expect that their wealth, power, or prestige will increase from self-determination are those most likely to support nationalism. . . . [Hence,] the appeal of nationalism rest on the presumption that a government that is run by one's co-nationals will enact superior policies." (Hechter 2000, pp. 30).

concentrated on the adoption of foreign economic policies aimed at securing the well-being of the state or a group within the state. Economic nationalism is thus defined as an ideology that contrasts with economic liberalism in two major ways: it rejects self-interest as the main guideline for organizing the social and economic, and second, it rejects the notion that the market can maximize the welfare of the collective (Levi-Faur 1997a). More recently a group of scholars define economic nationalism as a more general ideology, characterized by its ends, not its means, and hence cannot be confounded with a specific economic policy (Crane 1998; Helleiner 2002; Pickel 2003; Nakano 2004).<sup>8</sup> Yet, the traditional definition that equates economic nationalism to protectionism is more prevalent among scholars and practitioners. In general, the adoption of restrictive commercial policies for nationalistic motives is justified on the infant industry argument for development that follows the work of Friedrich List and Alexander Hamilton.<sup>9</sup> Thus, even for economic nationalists protectionism is a transient policy; it is not based on a theory of trade but on developing productive powers.<sup>10</sup> No matter what trade policy orientation they adopt, nationalist governments should be willing to trade-off current for future well-being.

As discussed earlier, most studies to date analyze the causes and consequences of economic nationalism at the state level. Harry Johnson, on the other hand, has extended the analysis of economic nationalism to the individual and group levels: "Na-

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<sup>8</sup>The content of economic nationalism is a set of "economic policies which promote economic development without threatening national cohesion, and whose costs and benefits are shared by the people of the whole nation-state." (Nakano 2004, pp. 227)

<sup>9</sup>"Protection, in certain cases, is therefore recommended and justified as an education tax that would enable the Americans to engage in equal exchange with the British, i.e. exchange not only *matter for matter* but also *mental capital for mental capital* . . . According to List, the role of the state in such a case was to create adequate conditions for the development of American mental capital. These conditions, however, could not be provided unless a managed trade policy was implemented." (Levi-Faur 1997a, 166; italics in original). A similar reasoning is found in the work of Johnson (1965), and Gilpin (1987).

<sup>10</sup>"[Hamilton and List] believed that free trade was only possible under certain conditions that did not exist for their economically weak, politically divided countries. As a result, they supported limited types of protection to promote industrialization in countries with the necessary capabilities . . . Hamilton and List argued that while the Liberals were correct in identifying the benefits of free trade, they did not adequately address the problems of how economically and politically weak countries might ensure their national security in a world where free trade did not exist." (Harlen 1999, pp. 739)

tionalism is defined as a state of social psychology or political sentiment that attaches value to having property in this broad sense - physical and financial assets, plus rights to certain kinds of jobs - owned by members of the national group” (Johnson 1965, pp. 176).<sup>11</sup> To some individuals who advocate economic nationalism, the choice of policies results in a tradeoff: “it is quite possible that the psychic enjoyment that the mass of the population derives from the collective consumption aspects of nationalism suffices to compensate them for the loss of material income imposed on them by nationalistic economic policies, so that nationalistic policies arrive at a quite acceptable result from the standpoint of maximizing satisfaction.” (Johnson 1965, pp. 184). Some individuals might be more or less willing to embrace economic nationalism purely on self-interest, yet others will be forced to trade off material and ideational preferences in order to support the national industry. The existence of this tradeoff at the individual level has important implications for coalition formation on trade policy and the prospects that governments would embrace economic nationalism. In the following section we discuss the findings in the literature on trade preferences at the individual level.

## **2.2 Individual attitudes towards trade: evidence from surveys**

The empirical literature on the determinants of individual attitudes towards trade has exploded in recent years, as scholars in economics and political science have tried to explain why some individuals are more protectionist than others. Most of these studies draw on the theoretical literature in international economics to derive predictions about individual trade policy preferences from individuals’ ownership of factors of production and sector of employment, the expected effect of trade on income for those factors or

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<sup>11</sup> Yet, note that in Johnson’s formulation most of the action occurs at the elite level. Gourevitch (1986) and Kindleberger (2000), on the other hand, define economic nationalism as purely instrumental: it is the ideology of the winning coalition that based on their self-interest favored protectionist policies in response to external shocks.

sectors.<sup>12</sup>

Using survey data for different countries and years, several scholars find support for a generalized version of the Stolper-Samuelson theorem: individuals with lower skills (or human capital) are more likely to favor restrictions in countries relatively better endowed with human capital and skills.<sup>13</sup> Yet, support for Stolper-Samuelson effects is weakened by the mixed findings in studies that include developing or skill scarce countries.<sup>14</sup> Mayda & Rodrik (2005) also find that sector of employment matters: those employed in comparative disadvantage sectors tend to be more protectionist.<sup>15</sup> In order to reconcile their findings that both factor ownership and sector of employment have a significant effect on individual attitudes towards trade, they resort to an explanation based on time horizons: provided that sectoral mobility is costly in the short run sector of employment should be an important determinant of attitudes towards trade, while factor ownership should matter in the long run.<sup>16</sup>

Scheve & Slaughter (2001) analyze how the role of ownership of non-productive assets also affects trade policy preferences. They find that home ownership in regions with higher concentration of comparative-disadvantage industries predisposes individuals to support trade barriers.<sup>17</sup> Baker (2005) moves beyond factor ownership, to model

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<sup>12</sup>The differential effect of trade on factor return is predicted by the Stolper-Samuelson theorem and depends on the relative endowment of factors vis-à-vis a country's trading partner with the abundant factor benefitting from trade; the effect of openness on industries is derived from the specific factors model, where internationally competitive industries benefit from trade while the import-competing industries hurt. The main difference between these models is their assumption of the degree of factor mobility within the economy. See Stolper & Samuelson 1941; Jones 1971; Mussa 1974; Rogowski 1989; Hiscox 2002. The literature on market structure and trade, on the other hand, predicts that trade is not driven by factor endowment differentials, and hence less likely to create distributive clashes over trade policy. See Krugman 1979; Helpman & Krugman 1985.

<sup>13</sup>Balisteri 1997; Beaulieu 1998; Gabel 1998; Scheve & Slaughter 2001; O'Rourke & Sinnott 2001; Mayda & Rodrik 2005.

<sup>14</sup>See Beaulieu et al. 2001; Beaulieu et al. 2005; Robbins 1995; Hainmueller & Hiscox 2006. The findings by Beaulieu et al. (2005) are consistent with an alternative human capital argument of the effects of integration on individual income: individuals with higher levels of formal skills are more adaptable to changing labor market conditions. See Gabel 1998; Bhagwati & Dehejia 1994.

<sup>15</sup>Mayda & Rodrik (2005, pp. 1412) conduct non-nested tests of the two competing models, and find that the fitted values from the factor model and the sector model, marginally, are significant in both cases, suggesting that skills and sector of employment are important determinants of trade policy attitudes in their sample.

<sup>16</sup>Our findings in section ?? using the ISSP 2003 data for the United States are consistent with their results.

<sup>17</sup>Scheve & Slaughter 2001, pp. 290



individuals' preferences as consumers. He finds support for the claim that in skill abundant countries individuals with higher propensity to consume skill-intensive goods, proxied by income, will be less predisposed to support free trade, while in skill-scarce countries propensity to consume skill-intensive goods is positively correlated with support for free trade.

The literature has also looked at the impact of nationalist sentiment on the disposition of individuals to support protectionism.<sup>18</sup> The general approach in these studies is to include as right-hand side variables a set of regressors that capture nationalistic sentiment or attachment to the individuals' community depending on the study, along with variables that capture economic interest (such as education, skill or occupation) in a regression.<sup>19</sup> Results are fairly consistent: economic interests and ideology seem to influence individual attitudes towards trade policy and economic integration.<sup>20</sup> Even though there is a broad consensus that cultural and ideational interests may also influence individual attitudes towards trade, the extant literature assumes implicitly or explicitly preclude that the effect of nationalism is not conditional on individuals' position in the economy. In the following section we discuss how adding those conditional effects might affect how we think about economic nationalism and its political consequences.

### **3 Material Interests, Ideology, and Protectionism**

There is a broad consensus among international economists that protectionism is a suboptimal policy, one that would make sense only under very specific and rather ex-

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<sup>18</sup>See O'Rourke & Sinnott 2001; Rankin 2004; Wolfe & Mendelsohn 2004; Hooghe & Marks 2004; Mayda & Rodrik 2005; Baker 2005; among others.

<sup>19</sup>There is some variation among these studies in terms of how nationalism is measured. O'Rourke & Sinnott (2001), for instance, use factor analysis of responses to a series of questions in the ISSP 1995 dataset to construct two underlying dimensions usually associated with nationalism: patriotism and chauvinism. Mayda and Rodrik (2005), on the other hand, choose responses to individual questions in the ISSP 1995 national module. We adopt O'Rourke & Sinnott's approach in the empirical section of this paper.

<sup>20</sup>Hooghe and Marks (2004) find that nationalistic sentiment explains a larger part of the variance of support for the EU than material interests do (Hooghe & Marks 2004).

ceptional economic circumstances. Yet free trade is contentious in the political realm. Political leaders and followers have a penchant for protectionism, usually justified on lofty motives, such as the advancement of the national interest.

Economic nationalism is usually conceived as an ideology that attaches value to the developing of the import-competing “national” industries, i.e., those that carry *superior status* and would be otherwise affected by openness, or weighing the material benefit of others employed in industries that would be hurt from trade or that could only survive if imports are restricted.<sup>21</sup> The policies associated with economic nationalism are likely to generate direct and intangible benefits: direct benefits take the form of income (and prestige) accruing to those individuals who own, or hold office and employment opportunities in the industries on which nationalism invests. The general benefits, on the other hand, consist of the psychic satisfaction derived by the community at large from gratification derived from the taste for nationalism.

One would expect to find nationalist sentiment to be strongest among individuals who are most vulnerable to competition from foreign economic activities, and hence fully explained by material interests: those employed in the import competing industries would be nationalistic, and those in the exporting industry should adopt a pro-integration stance.<sup>22</sup> In practice nationalist economic policy is aimed at distributing income, not increasing it (Breton 1964).<sup>23</sup> When the instrument of choice is increasing barriers to

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<sup>21</sup>See Johson (1965, pp. 176): “Nationalism can accordingly be conceived of as a state of social psychology or political sentiment that attaches value to having property in this broad sense owned by members of the national group.” Gilpin underscores three important components of economic nationalism as an ideology: its emphasis on the state as the predominant actor, its bias towards industry over agriculture, and its anti-trade bias (Gilpin 1987, pp 31-34, 46-50).

<sup>22</sup>Alternatively owners of the relatively abundant factor favoring free trade, while the owners of the relatively scarce factor should be associated with more protectionist cum nationalistic stances, when the underlying trade model follows the Heckcher-Ohlin/Stolper-Samuelson assumptions. However, economic nationalism should not be confounded with protectionism, since under some circumstances the national interest could be better served by promoting exports or integrating with the world economy (Helleiner 2002; Pickel 2003). The conditions under which we would expect economic nationalism to be associated with a particular trade policy orientation depends on the size, location, resource endowment and other characteristics of the economy. We will model these conditions when we extend the analysis to the rest of the countries in the ISSP 2003 sample.

<sup>23</sup>Optimal tariff and strategic trade motives are exceptions to this; yet the conditions under which an optimal tariff or the development of a strategic industry are justified are very limited in the real world; see Grossman 1986; Brander

trade, economic nationalism will result in a transfer of resources from one group in society to another group. Given that these policies are also likely to generate concentrated benefits and diffused costs, we could find an interest group explanation for their adoption: those benefiting from redistributive policies could be able to impose their will and have their preferred policy enacted.<sup>24</sup> If so, economic nationalism would be epiphenomenal, a mere reflection of individuals' position in the economy.

At the individual level nationalism could be independent of endowment of skills or sector employment. Thus conceived, nationalism would be a purely ideational dimension, orthogonal to the material dimension, and randomly distributed in the population. The value placed on the consumption of these two *goods* -material and psychological well-being- could vary from individual to individual. At the extremes -ie, among those who value material gains or those who are purely ideological- individuals might not be willing to incur in this exchange at all. This is the underlying assumption in recent studies on individual determinants of trade attitudes (O'Rourke & Sinnott 2001; Mayda & Rodrik 2005; Baker 2003, 2005). Still these studies miss an important implication of this assumption: when the instrument of choice is a tariff on foreign imports, among the nationalist -those individuals who derive utility from supporting the national industry- there will be some who reap the material benefits of the national policies, while others pay the costs. It is the latter who should be willing to sacrifice material gain (loss of income or higher prices) for the non-material benefit of protecting the national industry, which is the core assumption in Johnson (1965).<sup>25</sup> For those employed in the national industry, on the other hand, it is hard to distinguish ideology from self-interest.

The relationship between self interest and ideology, on one side, and attitudes

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1986.

<sup>24</sup>Moreover, based on their ability to organize that allows them better access to the policy-making process or due to their privileged position in the polity resulting from the country's institutions.

<sup>25</sup>Johnson's hypothesis, in turn, is based on Gary Becker's (1957) work on discrimination. Note, however, that a similar explanation of this tradeoff can be construed on altruistic motivations as well. See footnote ??.

towards protectionism, i.e., the preference for a higher tariff on imports ( $\tau$ )- on the other side,  $V_i(\tau) = v_i(I_i, \alpha)$ , can be modeled in different ways, leading to different empirical implications. One way is to model ideology (nationalism) and material interests as separate dimensions to explain individual's support for a more restrictive trade policy, i.e., a higher tariff rate  $\tau$ :

$$V_i = v_i(I_i(\tau)) + v_i(\alpha) \quad (1)$$

The effect of the tariff  $\tau$  on income depends on the individual's position in the economy, i.e., its industry of employment or skill endowment. The parameter  $\alpha$  characterizes the individual's degree of nationalism, which is associated with more restrictive attitudes towards foreigners in general, and foreign imports in particular. Implicitly these studies assume that  $\alpha(\tau)$ , forcing some individual to tradeoff utility along the two dimensions. Johnson (1965), on the other hand, makes this tradeoff explicit: his hypothesis implies that those benefitting from trade are willing to give up part of their income to restrict imports in order to benefit the 'national industry':

$$V_i = v_i(I_i(\tau)) + \alpha v_i(I_j(\tau)) \quad (2)$$

Hence, individuals ( $i = j, k$ ) can be of several types depending on the value they place on the income of others, captured by the parameter  $\alpha = (0, 1)$ , and the effect of the tariff,  $\tau$ , on their income: those employed in the industrial sector that need to be sheltered from foreign competition in order to survive ( $j \in \mathcal{P}$ ), and those that benefit from reducing barriers to trade ( $k \in \mathcal{F}$ ). The underlying assumption is that the national industry can only survive under a higher tariff.<sup>26</sup> At the extremes we find the *selfish* ( $\alpha = 0$ ), who only value the effect of the tariff on their income, and the *nationalists* ( $\alpha = 1$ ) who internalize the effects of opening up the economy on the national industry.<sup>27</sup>

<sup>26</sup>We could extend the analysis to "national industries" that would benefit from openness. See footnote ??

<sup>27</sup>In the specific factors model, those in the import-competing industries could still support protectionism for indus-

Alternatively we could model individual trade preferences as a continuum between self-interest and altruism, where each individual is willing to trade off their income to benefit other groups in the national economy, or internalize the net costs of the tariff

$$(\tau): V_i = (1 - \alpha) v_i(I_i(\tau)) + \alpha v_i \left( \sum_{h \neq i} \frac{I_h(\tau)}{n} \right), \text{ where } n = \sum k.^{28}$$

The different assumptions regarding the relationship between individual characteristics and material and non-material preferences leads to different predictions on their effect on individual attitudes towards protectionism. The first hypothesis is that nationalism is fully explained by material interests, in which case we should expect nationalism to play no additional role in trade attitude formation, i.e.,  $\alpha = 0$  in equation (??). A second hypotheses, based on equation (??), is that the effect of nationalism is constant for all actor types, i.e., the higher the level of  $\alpha$ , the higher the support for protectionism. Last, we could expect the effect of nationalism on support for restrictions on imports to be conditional on the individual's position in the economy. For example, to the extent that individuals value losses differently than gains (following Kahneman & Tversky's (1979) *prospect theory*), we could expect nationalism to have no differential effect on the probability of supporting barriers to trade among those individuals who benefit from protectionism, and have a positive effect on the probability of supporting trade restrictions among those that would benefit from opening up to trade.<sup>29</sup> In section ?? we conduct preliminary tests of these hypotheses.

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tries other than their own:  $V_i = v_i(I_i(\tau)) + \alpha v_i \left( \sum \frac{I_j(\tau)}{m} \right)$ , where  $m = \sum i$ . In section ?? we will also explore the empirical content of this hypothesis.

<sup>28</sup>The educated and skilled are more likely to be less nationalistic. They place less value on protecting the national industry for ideational and self-interest reasons (Levi-Faur 1997b, pp. 368). The utility function implicit in the first part of the argument, and in Hainmueller & Hiscox's (2006) analysis of the effect of education on attitudes would take this form, where  $\alpha$  is a (negative) function of the individual's educational attainment. In unskilled labor abundant countries like the Philippines, on the other hand, self-interest would make the skilled less likely to support free trade.

<sup>29</sup>A related argument is found in Reich's (1991) 'welfare guided economic nationalism', which emerges as a form of voluntary solidarity among members of a nation(Reich 1991; Levi-Faur 1997b). In developed/skill abundant countries, higher exposure in recent years to imports from the South -abundantly endowed with less-skilled labor- has hurt the less skilled (see Wood 1994). Hence, a new form of economic nationalism arises; one where the support of the most fortunate (the top fifth of the income distribution) is needed to attenuate the effects of globalization. The fortunate must be willing to relinquish own material benefits, to support those in the declining industries. The predictions from this argument run in the opposite direction for the unskilled labor abundant Philippines, where we would expect the more skilled to be willing to support free trade to benefit the less skilled.

## 4 Empirics

### 4.1 Data and measures

The individual level data is drawn from the International Social Survey Program, in particular, the 2003 national identity module. The ISSP is a cross-national collaborative programme among survey research agencies. In addition to questions regarding national identity, the 2003 ISSP covers economic, demographic and political topics. Based on time constraints we restrict our analysis to two countries that vary on the level of skill endowment: the United States and the Philippines.<sup>30</sup> The sample in each country is nationally representative, and was drawn from a multi-stage probability sampling. For all of our analysis, we have weighted the data using the sampling weights provided in the dataset.

We have measured trade preferences by recoding the answers to the following question: “Now we would like to ask a few questions about relations between (respondent’s country) and other countries. How much do you agree or disagree with the following statement: [Respondent’s country] should limit the import of foreign products in order to protect its national economy”. The dependent variable, *support for restrictions on foreign imports*, was constructed as dummy variable that takes the value 1 if the individual agrees or strongly agrees with the statement, and 0 otherwise, omitting the individuals who did not answer or did not choose any answer.<sup>31</sup> Therefore, in our analysis we are measuring the factors that influence the probability of supporting a restriction on imports, thus an anti-trade attitude. This variable directly captures the choice implicit in Johnson’s hypothesis.

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<sup>30</sup>We have conducted preliminary analysis using data for the rest of the countries in ISSP 2003; we will incorporate the findings from those analyses in the next revision of this draft.

<sup>31</sup>The possible answers to this question are: (1) agree strongly, (2) agree, (3) neither agree nor disagree, (4) disagree, (5) disagree strongly, (8) can’t choose, don’t know, (9) NA, refused. The binary variable takes the value of one when respondents agree strongly (1) or agree (2) with this statement, and zero otherwise.

Bauer et al. (1971), and Hiscox (2006), among others, raise an important concern regarding the potential bias associated with framing effects in surveys: the precise wording of the question may affect individuals' level of support for openness. Framing bias is less of a concern in our study since we are using a question from the ISSP 2003 that directly addresses the degree of support for import restrictions to protect the national economy.

In addition to the national identity module, the ISSP provides information on a range of socioeconomic characteristics of the respondents. A key variable in our analysis is skill, which we have measured using educational level. Our analyses include education categorized in two different ways. First, the respondents of each country were distributed in three equal sized groups according to their education level. The first education category groups one third of the population with the lowest educational level, while the top category includes those with the highest educational attainment in the sample.<sup>32</sup> Second, we consider education as a continuous variable.<sup>33</sup> The survey also provides information on gender and age, which we have included as controls in our analyses.

## **4.2 Economic sectors**

For the second set of hypotheses, we need a variable that accounts for the sector of employment. Unfortunately, the ISSP does not provide this information, but we have followed Mayda & Rodrik (2005) to derive sector of employment from the respondent's occupation.<sup>34</sup> The ISSP has information on the respondent's occupation based on the

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<sup>32</sup>Since education years are integers, and some years have more observations than others (such as those years reflecting completed primary and secondary education), the groups are roughly 1/3 each, as reflected in the breakdown in table ??.

<sup>33</sup>In both cases we have excluded from the analyses the few respondents that had not finished their studies at the time of the survey: less than 1% of the Philippines sample, and 0% in the US sample.

<sup>34</sup>We would like to thank Anna Maria Mayda for sharing the codes used to match occupational categories to industry codes. We followed their classification as much as possible. However, Mayda & Rodrik (2005) used the WTA that contains information based on the BEA coding, whereas we use the trade data provided by Nicita & Olarreaga (2006)

4-digit International Standard Classification of 1988. We have recoded the respondent's occupation into the International Standard Industrial Classification, Revision 2 categories, which is the categorization used in the trade dataset provided by Nicita & Olarreaga (2006). We have inferred sector of employment from the occupation data following the matching of occupation and industries from Mayda & Rodrik (2005). In many cases, it was not possible to match an occupation with a specific industry since the occupation description was not detailed enough. Therefore, following Mayda & Rodrik, we have created additional categories that combine the original codes.<sup>35</sup> For each industry or group of combined industries we have estimated the sector's adjusted trade imbalance average over the years 1999-2003.<sup>36</sup> This adjustment is needed to "correct" for the existence of overall trade imbalances (Mayda & Rodrik 2005, pp. 1410). The coefficient of adjustment,  $\lambda$  is derived from the following formula:

$$\lambda = \frac{\sum_i (M_i - X_i)}{\sum_i M_i}$$

Therefore,  $\lambda$  is positive when there is a trade deficit and negative when there is a trade surplus. The adjusted trade imbalance then is the difference between  $(1 - \lambda)M_i - X_i$ . Following Mayda & Rodrik (2005), we generate two sector specific variables that indicate whether the sector in a particular country has a comparative advantage or not, and

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whose classification is based on the ISIC revision 2; we have adjusted the codes accordingly.

<sup>35</sup>See Table ?? for a list of codes and industries. For some occupations, such as accountant, it was impossible to assign a sector of employment, and thus, they were omitted from the analysis.

<sup>36</sup>Data for sectoral trade comes from Nicita & Olarreaga's (2006) "Trade, Production and Protection" dataset. We have estimated trade balances in two different ways: first we compute the trade imbalance and adjustment factor for each year, and average over five years; alternatively we estimated the adjustment factor over the average of the five years. Both methods, as expected, yield similar values, except for textile industry in the US. We have estimated the models excluding the textile industry, yielding similar results.



whether the sector in a particular country has a comparative disadvantage or not. Thus,

$$CA_{ik} = \begin{cases} 1 & \text{if } M_{ik} - X_{ik} - \lambda M_{ik} < 0 \text{ for sector}_{ik} = 1, \dots, 46 \\ 0 & \text{if } M_{ik} - X_{ik} - \lambda M_{ik} > 0 \text{ for sector}_{ik} = 1, \dots, 46 \text{ or if non-tradeable} \end{cases}$$

$$CD_{ik} = \begin{cases} 1 & \text{if } M_{ik} - X_{ik} - \lambda M_{ik} > 0 \text{ for sector}_{ik} = 1, \dots, 46 \\ 0 & \text{if } M_{ik} - X_{ik} - \lambda M_{ik} < 0 \text{ for sector}_{ik} = 1, \dots, 46 \text{ or if non-tradeable} \end{cases}$$

The predictions from trade theory on the effect of changes in prices on the returns to different actors based on their industry of employment are derived from the specific factors model.<sup>37</sup> Eliminating barriers to trade is likely to raise the price of exported goods, and lower the price of imported goods. Returns to factors specific to the comparative advantage industries (presumably the net exporters) are likely to go up with trade liberalization, while the return to owners of factors of production specific to the comparative disadvantage/import-competing sector are likely to fall. The effect of trade liberalization on the return of producers of non-tradables depend on the income elasticity of demand of the goods produced by this sector.

### 4.3 Nationalism

Following O'Rourke & Sinnott (2001) we construct a measure of nationalism using individual's responses to a series of questions in the national identity module of the ISSP 2003. The questions used in constructing these indices are:

1. "Generally speaking, [country] is a better country than most other countries."

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<sup>37</sup>See Jones (1971). This model is also known as the Ricardo-Viner, label coined by Samuelson (1971).

2. "The world would be a better place if people from other countries were more like the [country nationality]."
3. "I would rather be a citizen of [country] than of any other country in the world."
4. "It is impossible for people who do not share [country] customs and traditions to become fully [nationality]."
5. "People should support their country even if the country is in the wrong."
6. "How important do you think each of the following is for being truly [nationality]?":  
"to have been born in [country]?"
7. "[Country] should follow its own interests, even if this leads to conflicts with other nations."

We use exploratory factor analysis to identify the underlying dimension or dimensions in these responses. We are able to identify two underlying factors in the 2003 ISSP data, which correspond to those found by O'Rourke & Sinnott (2001) using the 1995 data.<sup>38</sup> Table ?? presents the results loadings of the rotated factors, which we label '*patriotism*' and '*chauvinism*' following O'Rourke & Sinnott's practice.<sup>39</sup>

[Table ?? here]

The loadings for the two underlying factors are similar to those identified by O'Rourke & Sinnott's (2001) in the ISSP 1995 data. The only exception is the last question, whose loading is higher in our analysis. We have estimated the *patriotism* and *chauvinism* factors for each respondent using a regression scoring method. As shown in Figures ?? and ?? the mean levels of patriotism and chauvinism vary by country. The mean value of patriotism in the United States is the highest among the thirty-two countries in the ISSP sample, while the Philippines ranks sixth. Both countries fare relatively low on chauvinism.

<sup>38</sup>The first six questions ask the respondents to rank their responses from strongly agree to strongly disagree, and the seventh from very important to not at all important.

<sup>39</sup>The first factor, patriotism, points to "a straightforward preference for and sense of the superiority of one's own country" while the second factor seems to identify a "narrow or exclusive sense of nationality combined with a degree of chauvinism of the '*my country right or wrong*' variety" (O'Rourke & Sinnott, 2001, pp. 167.)

[Figures ?? and ?? here]

For presentational purposes we have initially run our analyses using the first factor, named *patriotism*, as our measure of nationalistic attitudes. Later we will report the results obtained when using the second factor, *chauvinism*, as our measure of nationalism. As in the case of education we use two different measures. The 1st category groups the third of the population with the lowest nationalism score and the 3rd category contains the most nationalistic individuals. Alternatively, we consider the nationalistic score as a continuous variable. We prefer the former specification since it imposes no linear constraints, and hence allows us to fit a more flexible functional form.

## 4.4 Results

### 4.4.1 Nationalistic attitudes and economic interests

We analyze the relationship between nationalistic attitudes and economic interest. In particular, we analyze to what extent nationalistic attitudes can be explained by economic interest, or whether attachment to nationalistic sentiment is consequential. Assuming factor mobility, we expect that the abundant factor benefits from openness whereas the scarce factor stands to lose.<sup>40</sup> Thus, proxying skill by education, we test the extent to which self-interest explains nationalistic attitudes. Second, assuming limited mobility and factor specificity, we expect that those working in the comparative disadvantaged sector -those individuals who stand to lose from eliminating barriers to trade irrespective of their skill or factor endowment- are more likely to adopt a nationalistic stance.

Analyzing responses in the US portion of the ISSP survey, we observe that the partial correlation between patriotism - measured as the first factor in the factor analysis

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<sup>40</sup>Opening up to trade results in an increase in the price of the goods and services that use the relatively abundant factor more intensively in production, and depresses the price of the good which uses the scarce factor more intensively, leading to the traditional Stolper-Samuelson results.

discussed in the previous section- and years of education is low (-0.1972); the correlation is even lower in the Philippines sample (-0.1135).<sup>41</sup> The correlation coefficients suggest that education and nationalism are negatively, albeit weakly, related with each other, which is consistent with the findings in Hainmueller & Hiscox (2006). To further explore this relationship we reproduce in table ?? the results of a series of tests where we first regress patriotism (and chauvinism) on years of education, and next on sector of employment. The negative sign on the education coefficient for the United States suggests that the more educated are on average less patriotic -and also less chauvinistic- while the positive coefficient for the Philippines sample suggests that the more educated in that country are more patriotic.<sup>42</sup>

To the extent that education proxies for skill, the negative coefficient for the US has the expected negative sign given that the US is relatively abundant in skilled labor, and hence those with skills are likely to benefit from trade liberalization. These results, however, underscore one of the main problems in studies using education as a proxy for material interest: formal education, rather than skill, could make individuals better predisposed towards all things foreign, become more cosmopolitan, and socialized to ideas about the benefits of trade and integration. In the case of the Philippines, on the other hand, the sign of the correlation is positive, suggesting that the more educated are more patriotic, which is also consistent with the owners of the scarce factor (skill) showing a penchant for autarchy. The combination of a negative sign in the partial correlation between patriotism and education in the United States and the positive sign for the sample of Filipinos -where the educated are likely to be the abundant and scarce factor respectively- is consistent with the predictions from the standard Heckscher-Ohlin model of trade. Yet, note that years of education, our proxy for skills, only explains 7.4%

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<sup>41</sup>The correlation between years of education and chauvinism is -0.2719 for the US, and -0.0065 for the Philippines sample.

<sup>42</sup>Regressing chauvinism on education in the Philippines returns a negative coefficient which is not significantly different from zero.

of the variance in patriotism, while in the Philippines the variance of patriotism explained by education is even lower (1%).

Next, we turn to test the implications of the specific factors model; the expectation is that nationalism should be higher among those employed in the comparative disadvantage/import-competing industries. Both for the US and Philippines, the portion of variance in patriotism explained by sector of employment is even lower. Employment in comparative advantage, comparative disadvantage or non-tradable sectors only explains 4% of the variance in patriotism in the US, and 0.7% in the Philippines. Looking at the coefficients, being in a comparative advantage or disadvantage sectors does not have a significantly different impact on patriotism than being in the non-tradable sector in the United States. In the Philippines, on the other hand, those in the comparative disadvantage sector are likely to be significantly more patriotic, in line with an instrumental view of ideology.<sup>43</sup> However, the combination of the low r-square and our inability to reject the null hypothesis in the US case provides only weak support for the instrumental argument.

[Table ?? here]

#### **4.4.2 Support for Limits on Imports: The Factor Model**

In this section we report our tests on the marginal impact of nationalism on support for protectionism across different levels of skill endowment. As a first cut, tables ?? ?? and ?? reproduce the level of support for protectionism for each of the countries in our analysis. Each row in table ?? represents an educational group and each column a different level of nationalism, measured as patriotism and chauvinism. The cell content is the percentage of individuals in that subgroup who support import restrictions. Thus,

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<sup>43</sup>The results on chauvinism are reversed: those in the comparative disadvantage sector are more likely to be chauvinistic in the US, but not in the Philippines.

the upper left cell indicates the percentage of the least educated and less patriotic who support limiting imports to protect the national economy.

[Table ?? here]

As we can see in Table ??, this first cut analysis provides some support for the factor endowment model. Looking at the difference between the top and bottom rows, in the US -the skill-abundant country- the more skilled individuals are less likely to support limits on imports; whereas in the skill-scarce country, the Philippines, the skilled are more likely to support limits on imports. We also observe the positive impact of nationalistic attitudes on support for limits on imports: in the two extreme groups, the least and the most educated, the percentage supporting limits on imports is higher among the more patriotic.<sup>44</sup>

In order to test for the relationship between protectionism, education and nationalism more systematically we conduct a series of multivariate analysis. First, we fit a logit regression in which the dependent variable is whether the individual supports imposing *restrictions on imports of foreign products in order to protect the national economy*.<sup>45</sup> The analysis confirms the results obtained from the cross-tabs: in the United States the partial correlation coefficient on years of education is negative and statistically significant beyond conventional level, even after controlling for nationalism, gender and age. Nationalism -measured both as patriotism and chauvinism- is positively correlated with support for limiting imports to protect the national industry among US respondents. In the Philippines, on the other hand, education is positively correlated with support for import restrictions, while patriotism and chauvinism have no effect, given that their respective coefficients, albeit positive, are not statistically different from zero. In the US,

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<sup>44</sup>Similar results are obtained for the US when using chauvinism as the measure of ideology. Note, however, that in the high and medium levels of educational attainment in the Philippines support for protectionism is not increasing in patriotism (or chauvinism).

<sup>45</sup>As mentioned above we use question 6a from the ISSP 2003.

but not in the Philippines, employment in a sector with comparative disadvantage (i.e., net importer) is associated with higher support for import restrictions than employment in the comparative advantage or non-tradable sectors. The effect of nationalism on support for restrictions remains strong in the sectoral models. Neither sector of employment nor nationalistic stances seem to be related to protectionism in the Philippines.

[Tables ?? and ?? here]

Since we want to allow the effect of nationalism to vary at different levels of skill endowment, we have constructed a set of dummy variables for the interaction between the three categories of skill -proxied for by levels of educational attainment- with three levels of nationalism. We create nine categorical variables combining three different categories of educational attainment (low, medium and high) obtained from the socio-economic module of the ISSP 2003, and three levels of nationalism (low, medium and high) obtained from breaking down the patriotism (and chauvinism) variables discussed in section ???. These group dummies are our main predictors/explanatory variables. Breaking down the data into groups allows us to fit a more flexible functional form of the relationship between our proxies for material interests and ideology.<sup>46</sup> The results are shown in Table ??, in which the subgroup composed of the less educated and less nationalist (ie, Patriotism=Low, Education=Low) is the baseline category, omitted from the analyses.

The results for the control variables show that women are more likely to be protectionist in the US, a result in line with the literature (e.g. Mayda & Rodrik, 2005), but less likely to support protectionism in the Philippines. Age does not have a significant impact in the Philippines, whereas in the US the middle-aged individuals are more likely to be protectionist: support for restrictions increase at a diminishing rate as reflected

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<sup>46</sup>In addition, we control for gender, and age. Age is included in levels and squared to take into account non-linearities.

in the positive coefficient on age in level and negative coefficient on age squared. The coefficients on the dummy variables in table ?? indicate whether each group is more or less likely to be protectionist when compared to the baseline category, i.e., the least educated and patriotic in the sample. Consistent with the results in the previous tables, the logistic analysis finds some support for the factor endowment model; the fit of the models is, however, relatively low. In the US the relationship between protectionism and education is negative at all levels of patriotism, whereas in the Philippines that relationship is positive. To allow for a better comparison across the different categories figures ?? and ?? graph the predicted probabilities and confidence intervals for the most and least nationalist for each educational category.<sup>47</sup>

[Table ??; Figures ?? and ?? here]

As we can see in Figure ??, in the United States the predicted probability of supporting protectionism for a highly patriotic person in the highest educational category is higher than the predicted probability for the least patriotic individuals in that educational group. The difference is significant at 95% confidence level. We observe a similar pattern among least educated individuals in the sample, ie, those who would hurt from opening up the economy in the Hecksher-Ohlin/Stolper Samuelson framework: the difference in the predicted probability of supporting restrictions between the most and least patriotic in the low education group is also significant at 95% confidence level. For those in the intermediate educational category. We also observe that the predicted probability of supporting import restrictions for the least patriotic individuals in the lowest educational attainment group is not significantly different from that for the most patriotic in the group with highest educational attainment. Patriotism seems to make no difference in the probability of supporting protectionism among those in the intermediate educational

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<sup>47</sup>The predicted probabilities and confidence intervals are based on setting the values of the gender dummy to one (female) and the age variable to the sample average. The confidence intervals were obtained by running 1,000 simulations based on the coefficients obtained from the logit regressions in Table ??.



attainment levels; individuals in this educational category are as likely to support protectionism as the least patriotic among the less educated, and as the most patriotic among the educated. In sum, we find that in the US two groups seem to stand out: the most patriotic among the least educated are the strongest supporters of protectionism, whose predicted probability of supporting import restrictions is roughly seventy-seven percent; and the least patriotic among the highly educated, with a forty percent probability of supporting restrictions to protect the national industry.

In the Philippines sample the predicted probability of supporting trade restrictions is highest for those in the top educational category, except for those at the lowest level of patriotism within this group. The difference with the baseline category -least educated and patriotic- is statistically significant beyond the 95% confidence level. We observe the same pattern among the least educated, whom according to the Stolper-Samuelson theorem would benefit from free trade, although the difference is only significant at the 90% level. Similarly to what was observed in the US, the predicted probability for the least patriotic and highly educated person in the Philippines is not significantly different from the predicted probability for a patriotic person in the lowest educational category. The predicted probability of supporting trade restrictions for the more educated and non-patriotic individuals is higher, yet not significantly different from the probability that a less educated but more patriotic person would support restrictions. The biggest difference in the predicted probability of supporting restrictions on imports to protect the national industry found among Filipinos is between the highly educated and patriotic on one side and the less educated and non-nationalistic on the other side: over 22 percentage points, and significant beyond conventional statistical levels.

The last two columns in table ?? reproduce the results of the tests based on chauvinism as the measure of ideology. Figures ?? and ?? graph the predicted probabilities and confidence intervals of supporting import restrictions for different educational

categories and levels of nationalism. In the US case the results in column 3 of table ?? reproduced graphically in figure ?? suggest that individuals at the highest levels of chauvinism are more likely to support protectionism, except for those in the highest level of educational attainment. In the latter group the difference in the probability of supporting protectionism is not significant in statistical terms. In the Philippines sample, on the other hand, the results are similar to those obtained in the tests using patriotism: the more educated, irrespective of their level of chauvinism, are more likely than the least educated and non-chauvinistic to support restricting imports to protect the national industry.

The results unveil a relationship that could be in part consistent with the predictions from the Stolper-Samuelson theorem: the more educated tend to be more protectionist in the Philippines, and less protectionist in the United States. Patriotism is also likely to affect individual attitudes towards trade in the US, and less so in the Philippines, consistent with earlier findings. Yet we observe that the effect of being patriotic on the probability of supporting trade restrictions is conditional on the level of education of the respondent. Overall we find that the differences are substantively and statistically stronger in the US, whereas the results for the Philippines provide weaker support: the point predictions are in the expected order and substantively large, the more educated and patriotic being more protectionist, but the differences across groups are not statistically significant. In sum, once we allow the effect of nationalism to vary we obtain results that seem more consistent with the compensation hypothesis.

#### **4.4.3 Support for Limits on Imports: The Industry Model**

In order to analyze whether sector of employment has an effect on the probability of supporting import restrictions, we fit a logit model with the dichotomous variable restrict import as the regressand, and the sectoral dummies CA and CD -reflecting employment in the comparative advantage and comparative disadvantage sectors constructed as

discussed in section ??- patriotism, and the interaction between the sectoral dummies CA and CD with patriotism, as regressors.<sup>48</sup> The omitted/baseline category in the model is employment in the non-tradable sector. Table ?? presents the coefficients for the United States and the Philippines.<sup>49</sup>

[Table ?? here]

The correlation between sector of employment and nationalism on one hand, and support for import restrictions in the United States provides some support for the altruistic version of the material-ideational tradeoff discussed in section ?. In the Philippines, on the other hand, we find no relationship between sector of employment and the probability of supporting restrictions on imports to protect the national industry. Moreover, in the Philippines the sign of the coefficient on the comparative disadvantage sectors are negative, and thus contrary to our expectations, though the coefficient is far from significant at conventional levels.

[Figures ?? and ?? here]

Figures ?? and ?? present the predicted probabilities and confidence intervals for the variables of interest in graphical form. In the US, we observe that for the the non-tradable and comparative advantage sectors the probability of supporting protectionism increases with patriotism, and is roughly the same for all individuals in the sample at the highest level of patriotism. We find no effect of nationalism on attitudes towards protectionism for those individuals in the comparative disadvantage sector.

Comparing the anti-trade stance between sectors, we observe that it conditional on the level of nationalism. At low levels of nationalism those employed in the non-

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<sup>48</sup>The models also include controls for age and gender.

<sup>49</sup>Table ?? reproduces the coefficients of similar tests using chauvinism as the measure of ideology. The results, graphed in figures ?? and ?? are substantively similar to those discussed in the text using patriotism as the measure of nationalism. The main difference in the US case is that the probability of supporting protectionism is higher for those in the comparative disadvantage sector only at levels of chauvism.

tradable and in the comparative advantage sectors, whom presumably would benefit from free trade, are less likely to support protectionism than those in the comparative disadvantage sector. This is consistent with the predictions derived from the specific factors model. However, as the level of nationalism increases, the differences between sectors decrease. At the lowest level of patriotism the difference in the probability of supporting trade restrictions between those in comparative disadvantage industries and those in non-tradable sectors is roughly 60 percentage points; at mean levels of nationalism (0.68 in the patriotism index), on the other hand the difference drops to 18 percentage points. These differences are statistically significant beyond conventional levels. At levels of patriotism beyond the 90th percentile (1.24 in the patriotism index) the probability of supporting trade restrictions is high for both groups (86% and 76% respectively) but the difference is no longer statistically significant. The predicted probabilities for those in the comparative advantage industries are similar to those for individuals in non-tradable sectors, particularly in comparison to those in the comparative disadvantage industries. The predicted probabilities for this group are less precisely estimated than the probability for those in the non-trade sectors, as reflected by the wider confidence interval.

Regarding the results for the Philippines, we observe that individuals employed in the comparative disadvantage sector are less likely to support restrictions on imports than the individuals in the non tradable sector, which is puzzling. These differences are not statistically significant, as reflected by the standard errors in Table ?? and the overlap in the confidence intervals for almost all the range of patriotism. However, analyzing the classification of industries, we observe that the food sector, which includes all agricultural activities, is classified as a comparative disadvantage sector since its adjusted trade balance is negative. Since it is plausible that the economic interests of those in the food industry could differ from the interests of individuals in the comparative disad-

vantage sectors we have re-estimated the logistic regression for the Philippines sample, now controlling for employment in the food industry.<sup>50</sup> The results from this analysis are reproduced in Table ??; we present the predicted probabilities and confidence intervals associated with these estimates in Figure ?. The signs of the coefficients and predicted probabilities are now in the expected direction, although they remain not significant as reflected by the wide confidence intervals. The pattern, however, is now more similar to that observed for the US sample: at low levels of nationalism, i.e., when self-interest prevails, those in the comparative disadvantage sector are more likely to support import restrictions. There is, however, an important difference with the US pattern: the predicted probability of supporting restrictions for this group now falls with nationalism. Interestingly, the results are supportive for the altruistic version of nationalism: as the degree of nationalism increases individuals seem to be more willing to support policies that go against their material self-interest. The inverse pattern is observed for individuals employed in the comparative advantage sectors: the more nationalist the individual, the more likely to support restrictions on imports.<sup>51</sup> But since this result is also predicted by alternative hypotheses, we consider that it does not provide as much support for the altruistic model as the result for the comparative disadvantage sector.

[Figure ?? here]

In sum, the results for the sectoral analysis suggests that the probability of supporting protectionism is lower for those that according to theory would benefit from free trade, and seems to increase with nationalism. The probability is roughly the same for all individuals in all sectors at the highest level of patriotism. We find no effect of nationalism on attitudes towards protectionism for those individuals in the comparative

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<sup>50</sup>In these analyses we have included a dummy variable to control for employment in the food sector, and changed the comparative disadvantage dummy to zero for these cases.

<sup>51</sup>At the highest and lowest levels of patriotism, the difference in the predicted probabilities for those in the comparative advantage and comparative disadvantage sectors are significant at the 85% level. These results deserve further study, and we expect to expand the analysis in future revisions of the paper.

disadvantage sector.

## **5 Conclusion, Caveats and Extensions**

In this paper we analyze under what conditions and to what extent are those individuals hurt by restrictive commercial policies willing to support import restrictions to protect the national industry, trading-off material benefits for symbolic ones. We argue that this tradeoff, originally formulated by Harry Johnson (1965) has important implications for coalition formation on trade, investment and migration policy-making. In the empirical section of the paper we analyze whether material interests and ideology have conditional effects on individuals; disposition to support import restrictions to protect the national economy. Using data from the International Social Survey Program (ISSP 2003) National Identity Module for two countries, the United States and the Philippines, we find that nationalism is negatively correlated with education. The correlation is, however, relatively low. We also find that nationalism is not correlated with sector of employment in the US, while being employed in the comparative disadvantage sector in the Philippines is positively correlated with patriotism. However, our results suggest that economic interest, proxied for by education and sector of employment, leave a large portion of the variance in nationalism at the individual level unexplained. Next, we move to attitudes towards protectionism. We find preliminary evidence for the US, that the less-skilled and nationalist show the highest propensity to support restrictions on imports of foreign goods to support the national industry. Apparently this disposition is not driven exclusively by self-interest: for the least nationalists among the less-skilled the probability of supporting protectionism is 16 percentage points lower. The probability of supporting import restrictions among the high-skilled is lowest for the least nationalists, 49 percent, 18 percentage points less than the most nationalist in this group. These

two groups stand out from the rest of the surveyed population whose support for trade restrictions is roughly the same. In the Philippines, on the other hand, the most likely to support protectionism are those in the high-skill group. The direction of the effect of skill endowment on attitudes towards free trade in the United States and the Philippines is consistent with the predictions from a generalized version of the Heckscher-Ohlin Stolper-Samuelson model. Except for those in the intermediate level of skills, nationalism and material interests seem to have independent effects on protectionist attitudes.

We also explore the probability of supporting import restrictions as a function of individuals' sector of employment. We find preliminary evidence that at low levels of nationalism those employed in the non-tradable and in the comparative advantage sector, whom presumably would benefit from free trade, are less likely to support protectionism than those in the comparative disadvantage sector. The probability of supporting protectionism seems to increase with nationalism, and is roughly the same for all individuals in the sample at the highest level of nationalism. Yet, we find no effect of nationalism on attitudes towards protectionism for those individuals in the comparative disadvantage sector in the US, and an attenuating effect in the Philippines. The correlation between sector of employment and nationalism on one hand, and support for restrictions in the United States, and less so in the Philippines, suggest that the altruistic version of the material-ideational tradeoff in the Johnson hypothesis is plausible. Our results are consistent with earlier findings in the empirical literature on the effects of factor ownership and sector of employment on trade policy attitudes, and on the effects of nationalism. Our main contribution is to show that the effects of ideology on protectionism are conditional on the individual's position in the economy.

Several problems with our empirical strategy are worth noting. The first problem is the use of an endogenous regressor: nationalism. The second problem with this measure is that nationalism, the main independent variable, is an attitudinal variable,

and hence we are regressing attitudes towards trade on attitudes towards the nationalism. Our challenge in future revisions of the paper is to find a good instrument for nationalism in answers to the survey questions to deal with the endogeneity problem, and identify the primitives of nationalism at the individual level. Regarding measurement problems, we should point out that educational attainment, our proxy for skill in the factor based tests, could affect individual disposition towards protectionism.<sup>52</sup> In the sectoral analysis, there is a possibility of having misclassified the sectors since the matching is based on occupational categories, in which case we could have underestimated the coefficients on the sectoral dummies (see Mayda & Rodrik 2005, pp. 1412)

In order to explore these questions, we would include additional countries in the ISSP survey, and fit multilevel models to account for the differences across countries that would affect the propensity to support restrictions in general. Who do the countries trade with, and what is the factor endowment of its trading partners? How much trade is intra-industry?<sup>53</sup> Market size, which affects the possibility of attaining scale economies or the possibility of benefitting from an optimal tariff, political and institutional features, affecting the ability of domestic actors to organize politically and strike bargains, among other country level features, are also likely to influence on how individuals perceive the policy options available to them and hence affect their preferences, and need to adequately accounted for. We'll address these issues in future revisions of this paper.

Two additional avenues for future research are also worth exploring: first, the high level of support for protectionism in both countries is still puzzling and worth analyzing in more detail. Second, we would like to formalize the tradeoff between material and ideational interests, and ultimately define the conditions under which we would expect altruism and nationalism to emerge, and when would economic nationalism be associ-

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<sup>52</sup>Note, however, that the effect of education as a proxy of skill and education as socialization to ideas and cosmopolitanism would be reinforcing in the US, and point in opposite directions in the Philippines.

<sup>53</sup>But note Davis & Weinstein's (2001) cautionary note on the important factor endowment differential in sectoral trade even among relatively homogeneous countries like Britain, France, Germany, Japan and the United States.



ated with restrictive policies, as opposed to export promotion. In particular, we argue that institutional features should be key in explaining why nationalism-cum-altruism in Reich's formulation, which seems to fit the data, takes the form of protectionism.<sup>54</sup> What keeps the winners from free trade from organizing economic activities around the principle of comparative advantage which results in a more efficient allocation of resources, and at the same time compensate the losers through direct transfers?

Ultimately we would like to test whether ideology and material interest have independent effects on individuals' attitudes towards globalization, and whether those effects vary across countries. Existing survey data is not enough to test the compensation hypothesis advanced by Johnson, and quantify the tradeoff between the "psychic enjoyment that the mass of the population derives from the collective consumption aspects of nationalism" and "the loss of material income imposed on them by nationalistic economic policies" (Johnson 1965). We would like to test the hypotheses discussed in section ?? in an experimental setting that would force individuals to quantify the tradeoff between income and ideology.

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<sup>54</sup>On protectionist bias in trade politics see also Hillman 1982; Rodrik 1995; Goodhart 2006.

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Table 1: Economic Sectors: Codes & Description

Codes	Description
311	Food products
313	Beverages
314	Tobacco
321	Textiles
322	Wearing apparel, except footwear
323	Leather products
324	Footwear, except rubber or plastic
331	Wood products, except furniture
332	Furniture, except metal
341	Paper and products
342	Printing and publishing
351	Industrial chemicals
352	Other chemicals
353	Petroleum refineries
354	Miscellaneous petroleum and coal products
355	Rubber products
356	Plastic products
361	Pottery, china, earthenware
362	Glass and products
369	Other non-metallic mineral products
371	Iron and steel
372	Non-ferrous metals
381	Fabricated metal products
382	Machinery, except electrical
383	Machinery, electric
384	Transport equipment
385	Professional and scientific equipment
390	Other manufactured products

Table 1: (cont.) Economic Sectors: Combined Codes

Combined codes	Description
400	Iron, steel and non-ferrous metals
401	Food products and beverages
404	Industrial and other chemicals, and petroleum refineries
407	Textiles, wearing apparel, leather products, wood products.
408	Pottery, china, earthenware, and glass and products
410	Textiles, leather, and wearing apparel, excluding footwear
411	Wood and paper products, except furniture.
412	Wood products.
413	Iron, steel and non-ferrous metals, and fabricated metal products
416	Food products, beverage, and tobacco.
417	Iron, steel and non-ferrous metals, prof. equip., and other manuf. products
419	Wood products
420	Textiles, and wearing apparel, excluding footwear
421	Textile and leather products
422	Leather products and footwear
423	Paper and products, printing and publishing.
424	Food products, beverage, and tobacco.
500	Non manufactured
900	Non traded

Table 2: Descriptive Statistics (Weighted)

	United States			
	Obs.	Mean	Std. Dev	Missing
Support limits on imports (DV)	1,180	0.61	0.49	3%
Years of education	1,216	13.85	2.82	0%
Patriotism	1,121	0.67	0.81	8%
Chauvinism	1,121	-0.37	0.94	8%
Gender	1,216	0.50	0.50	0%
Age	1,215	45.3	16.36	0%
Sector of employment*	916			25%
	Philippines			
	Obs.	Mean	Std. Dev	% Missing
Support limits on imports (DV)	1,180	0.73	0.45	2%
Years of education	1,191	9.47	3.60	1%
Patriotism	1,133	0.41	0.87	6%
Chauvinism	1,133	-0.12	0.87	6%
Gender	1,200	0.50	0.50	0%
Age	1,200	39.47	15.12	0%
Sector of employment*	1,016			15%

\* CA, CD or Non-tradable. See text for description.

Table 3: Factor Analysis - ISSP 2003

Questions	Factor 1	Factor 2
Q4.d) Generally speaking, [country] is a better country than most other countries.	0.83	0.01
Q4.c) The world would be a better place if people from other countries were more like the [country nationality].	0.76	0.18
Q4.a) I would rather be a citizen of [country] than of any other country in the world.	0.71	0.16
Q8.a) It is impossible for people who do not share [country] customs and traditions to become fully [country nationality].	0.07	0.69
Q.4e) People should support their country even if the country is in the wrong.	0.28	0.59
Q.6c) [Country] should follow its own interests, even if this leads to conflicts with other nations.	0.07	0.69
Q.3a) How important do you think each of the following is for being truly [country ]? . . . to have been born in [country ]?	0.42	0.43
Percent variance	0.29	0.22

Note: Principal component analysis - Rotation: orthogonal varimax

Table 4: Regression Analysis: Nationalism

DV	(a) United States				(b) Philippines			
	Patriotism		Chauvinism		Patriotism		Chauvinism	
Years of education	-0.06*** (0.01)		-0.094*** (0.01)		0.03*** (0.01)		-0.002 (0.01)	
Comparative Advantage (CA)		0.10 (0.09)		0.18 (0.12)		-0.05 (0.13)		-0.17 (0.12)
Comparative Disadvantage (CD)		0.16 (0.11)		0.30** (0.12)		0.16** (0.07)		0.09 (0.07)
Intercept	1.50*** (0.13)	0.68*** (0.03)	0.95*** (0.16)	-0.38*** (0.04)	0.68*** (0.08)	0.39*** (0.03)	-0.10 (0.08)	-0.12 (0.03)
$R^2$	0.074	0.04	0.074	0.01	0.01	0.007	0.000	0.01
Observations	1,121	837	1121	837	1,124	960	1124	960

Standard errors in parentheses  
 \*, \*\*, \*\*\* significant at 10%, 5% and 1% levels



Table 5: Support for Restrictions on Imports by Education and Patriotism Levels

		???? United States					
		Patriotism			Chauvinism		
		Low	Medium	High	Low	Medium	High
Education Category	Low	56% (107)	63% (126)	78% (172)	54% (90)	67% (132)	76% (175)
	Medium	56% (117)	60% (118)	65% (113)	42% (108)	61% (127)	77% (116)
	High	41% (167)	58% (124)	59% (77)	45% (173)	57% (114)	57% (79)
		???? Philippines					
		Patriotism			Chauvinism		
		Low	Medium	High	Low	Medium	High
Education Category	Low	64% (110)	66% (107)	76% (143)	63% (123)	71% (116)	73% (125)
	Medium	71% (126)	70% (110)	70% (130)	66% (102)	73% (140)	71% (127)
	High	70% (151)	80% (130)	84% (117)	81% (139)	72% (113)	79% (120)

Percentage supporting import restrictions  
 Number of observations in parentheses

Table 6: Logistic Regression: Support for limits on imports, Nationalism and Education

DV:	United States		Philippines	
Restrict Imports	(a)	(b)	(a)	(b)
Patriotism	0.44*** (0.10)		0.13 (0.08)	
Chauvinism		0.55*** (0.09)		0.05 (0.08)
Years of education	-0.09*** (0.03)	-0.07*** (0.03)	0.05** (0.02)	0.05** (0.02)
Gender	0.39*** (0.15)	0.45*** (0.15)	-0.31** (0.15)	-0.3** (0.15)
Age	0.06** (0.03)	0.08*** (0.03)	0.02 (0.02)	0.02 (0.02)
Age <sup>2</sup>	-0.001** (0.0003)	-0.001*** (0.0003)	-0.0001 (0.0003)	-0.0001 (0.0003)
Intercept	-0.23 (0.68)	-0.47 (0.67)	0.05 (0.58)	0.09 (0.58)
Pseudo- <i>R</i> <sup>2</sup>	0.051	0.070	0.013	0.011
Observations	1106	1106	1119	1119

Robust standard errors in parentheses

\*, \*\*, \*\*\* significant at 10%, 5% and 1% levels

Table 7: Logistic Regression: Support for limits on imports, Nationalism and Sector of Employment

DV:	United States		Philippines	
Restrict Imports	(a)	(b)	(a)	(b)
Patriotism	0.66*** (0.11)		0.08 (0.09)	
Chauvinism		0.64*** (0.10)		0.08 (0.08)
Comparative Advantage (CA)	0.11 (0.26)	0.10 (0.28)	-0.07 (0.34)	-0.06 (0.34)
Comparative Disadvantage (CD)	1.21*** (0.37)	1.15*** (0.35)	-0.26 (0.2)	-0.26 (0.2)
Gender	0.46*** (0.18)	0.51*** (0.18)	-0.42** (0.17)	-0.4** (0.17)
Age	0.04 (0.03)	0.06** (0.03)	0.00 (0.03)	0.00 (0.03)
Age <sup>2</sup>	-0.0004 (0.0003)	-0.0006** (0.0003)	0.0001 (0.0003)	0.0000 (0.0003)
Intercept	-1.31*** (0.65)	-1.03 (0.64)	0.98* (0.54)	0.98* (0.54)
Pseudo- $R^2$	0.066	0.081	0.010	0.010
Observations	824	824	946	946

Robust standard errors in parentheses

\*, \*\*, \*\*\* significant at 10%, 5% and 1% levels

Table 8: Logistic Regression: Support for limits on imports by Nationalism and Educational Attainment

	DV: Restrict Imports			DV: Restrict Imports	
	United States	Philippines		United States	Philippines
Patriotism=Low, Education=Medium	-0.13 (0.32)	0.38 (0.30)	Chauvinism=Low, Education=Medium	-0.51 (0.34)	0.26 (0.31)
Patriotism=Low, Education=High	-0.74** (0.29)	0.34 (0.30)	Chauvinism=Low, Education=High	-0.46 (0.31)	1.05*** (0.31)
Patriotism=Medium Education=Low	0.11 (0.32)	0.09 (0.31)	Chauvinism=Medium Education=Low	0.55* (0.33)	0.44 (0.31)
Patriotism=Medium Education=Medium	0.05 (0.32)	0.38 (0.31)	Chauvinism=Medium Education=Medium	0.21 (0.33)	0.61** (0.30)
Patriotism=Medium Education=High	-0.11 (0.31)	0.92*** (0.33)	Chauvinism=Medium Education=High	0.1 (0.33)	0.55* (0.31)
Patriotism=High Education=Low	0.90*** (0.31)	0.52* (0.30)	Chauvinism=High Education=Low	0.99*** (0.33)	0.50* (0.29)
Patriotism=High Education=Medium	0.24 (0.34)	0.36 (0.30)	Chauvinism=High Education=Medium	1.09*** (0.37)	0.52* (0.30)
Patriotism=High Education=High	-0.001 (0.37)	1.10*** (0.34)	Chauvinism=High Education=High	0.13 (0.35)	0.93*** (0.33)
Gender	0.36** (0.15)	-0.30** (0.15)	Gender	0.41*** (0.15)	-0.28* (0.15)
Age	0.06*** (0.03)	0.02 (0.03)	Age	0.08*** (0.03)	0.02 (0.03)
Age <sup>2</sup>	-0.0005** (0.0003)	-0.0001 (0.0003)	Age <sup>2</sup>	-0.0007 (0.0003)	-0.0001 (0.0003)
Intercept	-1.34** (0.58)	0.07 (0.58)	Intercept	-1.90*** (0.64)	-0.12 (0.58)
Pseudo- <i>R</i> <sup>2</sup>	0.05	0.02	Pseudo- <i>R</i> <sup>2</sup>	0.065	0.02
Observations	1106	1119	Observations	1106	1119

Robust standard errors in parentheses

\*, \*\*, \*\*\* significant at 10%, 5% and 1% levels

Table 9: Logistic Regression: Support for limits on imports by Chauvinism and Sector

DV:	United States		Philippines	
Restrict Imports	(a)	(b)	(a)	(b)
Comparative Advantage (CA)	-0.27 (0.35)	-0.80* (0.46)	-0.18 (0.35)	-0.16 (0.35)
Comparative Disadvantage (CD)	1.60*** (0.48)	1.59*** (0.48)	-0.23 (0.24)	0.49 (0.70)
CA*Patriotism	0.35 (0.36)	0.85* (0.48)	0.40 (0.46)	0.34 (0.46)
CD*Patriotism	-0.67 (0.43)	-0.64 (0.43)	0.14 (0.21)	-0.78 (0.63)
Patriotism	0.62*** (0.13)	0.59*** (0.12)	0.04 (0.11)	0.09 (0.09)
Dummy sector 311 (Food)		0.42 (0.53)		-0.19 (0.22)
Years of education	-0.06** (0.03)	-0.06** (0.03)	0.04 (0.02)	0.04 (0.02)
Gender	0.43** (0.18)	0.43** (0.18)	-0.37** (0.17)	-0.38** (0.17)
Age	0.05* (0.03)	0.05* (0.03)	0.01 (0.03)	0.01 (0.03)
Age <sup>2</sup>	-0.0005 (0.0003)	-0.0005 (0.0003)	-0.00002 (0.0003)	-0.00002 (0.0003)
Intercept	-0.55 (0.78)	-0.53 (0.78)	0.38 (0.64)	0.36 (0.64)
Pseudo- <i>R</i> <sup>2</sup>	0.07	0.08	0.01	0.014
Observations	824	824	946	946

Robust standard errors in parentheses

\*, \*\*, \*\*\* significant at 10%, 5% and 1% levels

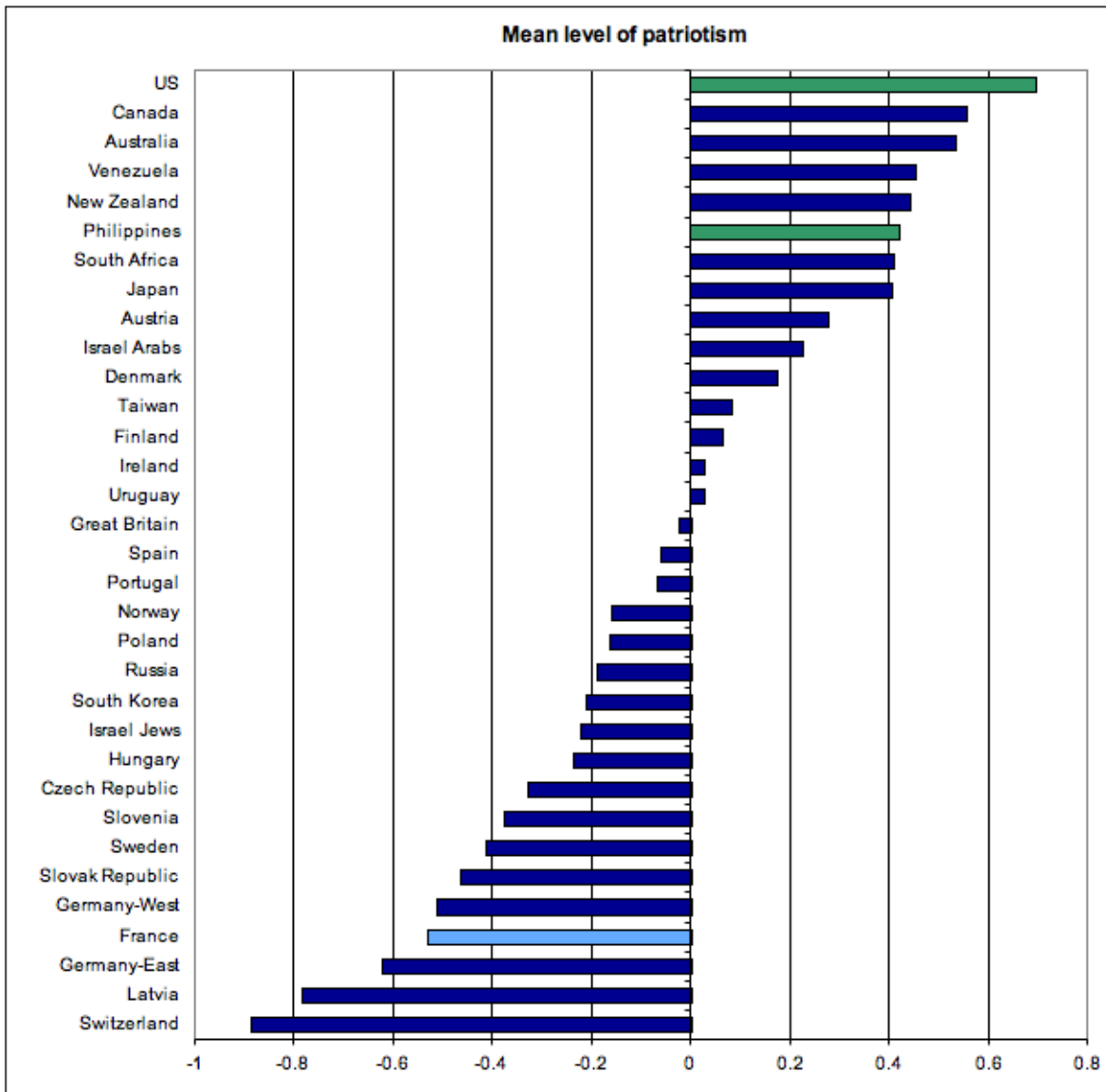
Table 10: Logistic Regression - Dependent variable: Support for limits on imports

DV:	United States		Philippines	
Restrict Imports	(a)	(b)	(a)	(b)
Comparative Advantage (CA)	-0.08 (0.29)	-0.25 (0.33)	0.01 (0.37)	0.01 (0.37)
Comparative Disadvantage (CD)	1.29*** (0.42)	1.3*** (0.42)	-0.17 (0.21)	-0.02 (0.54)
CA*Chauvinism	-0.28 (0.26)	-0.31 (0.29)	0.26 (0.40)	0.25 (0.39)
CD*Chauvinism	0.46 (0.40)	0.47 (0.39)	0.05 (0.19)	0.07 (0.47)
Chauvinism	0.62*** (0.11)	0.61*** (0.11)	0.05 (0.10)	0.06 (0.09)
Dummy sector 311 (Food)		0.44 (0.53)		-0.19 (0.22)
Years of education	-0.05 (0.03)	-0.05 (0.03)	0.04 (0.02)	0.04 (0.02)
Gender	0.48*** (0.18)	0.49*** (0.18)	-0.37** (0.17)	-0.36** (0.17)
Age	0.06** (0.03)	0.07** (0.03)	0.01 (0.03)	0.01 (0.03)
Age <sup>2</sup>	-0.0006 (0.0003)	-0.0006** (0.0003)	-0.00002 (0.0003)	-0.00003 (0.0003)
Intercept	-0.41 (0.76)	-0.45 (0.77)	0.39 (0.64)	0.38 (0.64)
Pseudo- $R^2$	0.09	0.09	0.01	0.01
Observations	824	824	946	946

Robust standard errors in parentheses

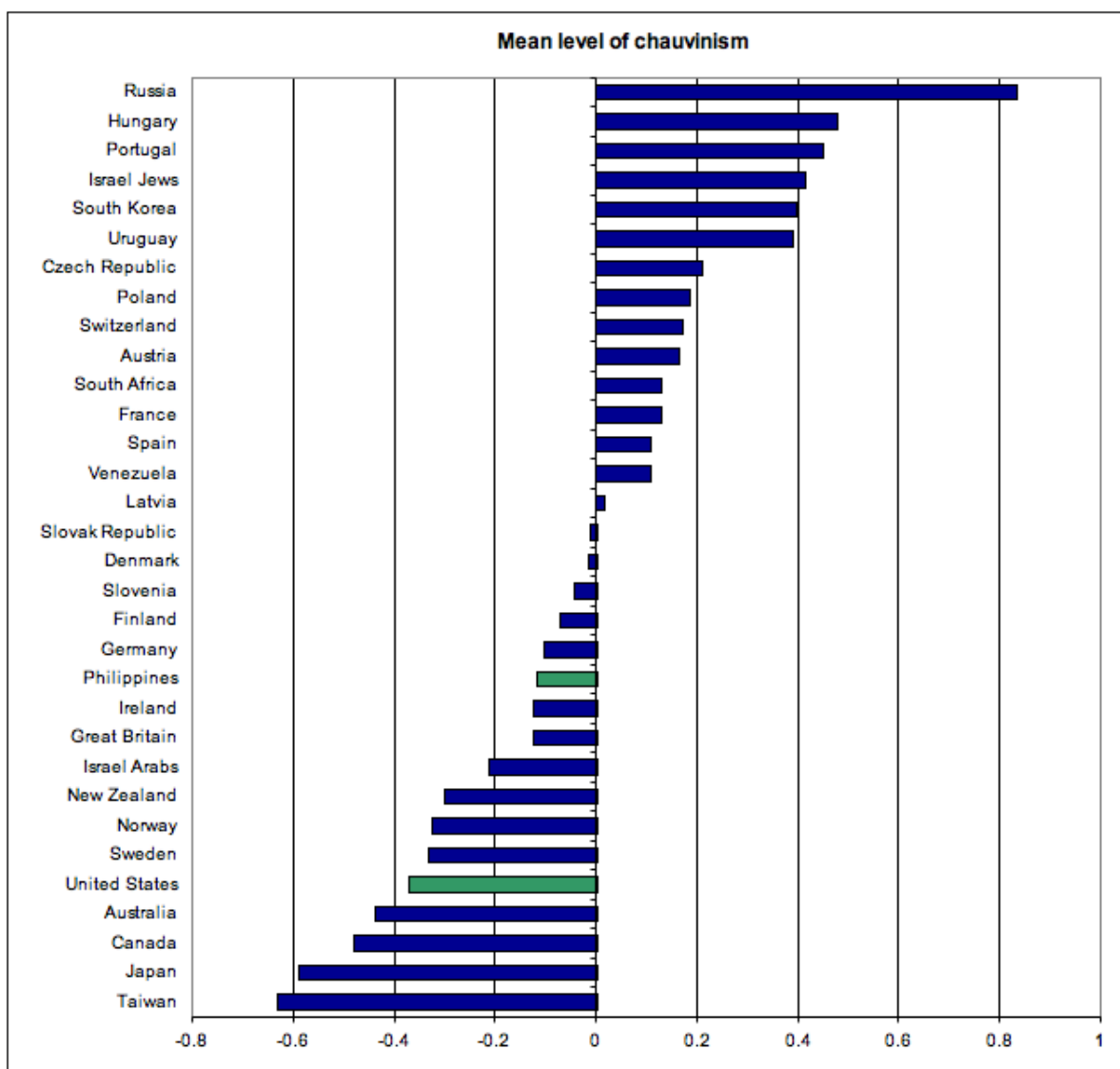
\*, \*\*, \*\*\* significant at 10%, 5% and 1% levels

Figure 1: Patriotism Index



First factor from principal component analysis (see Table ??)

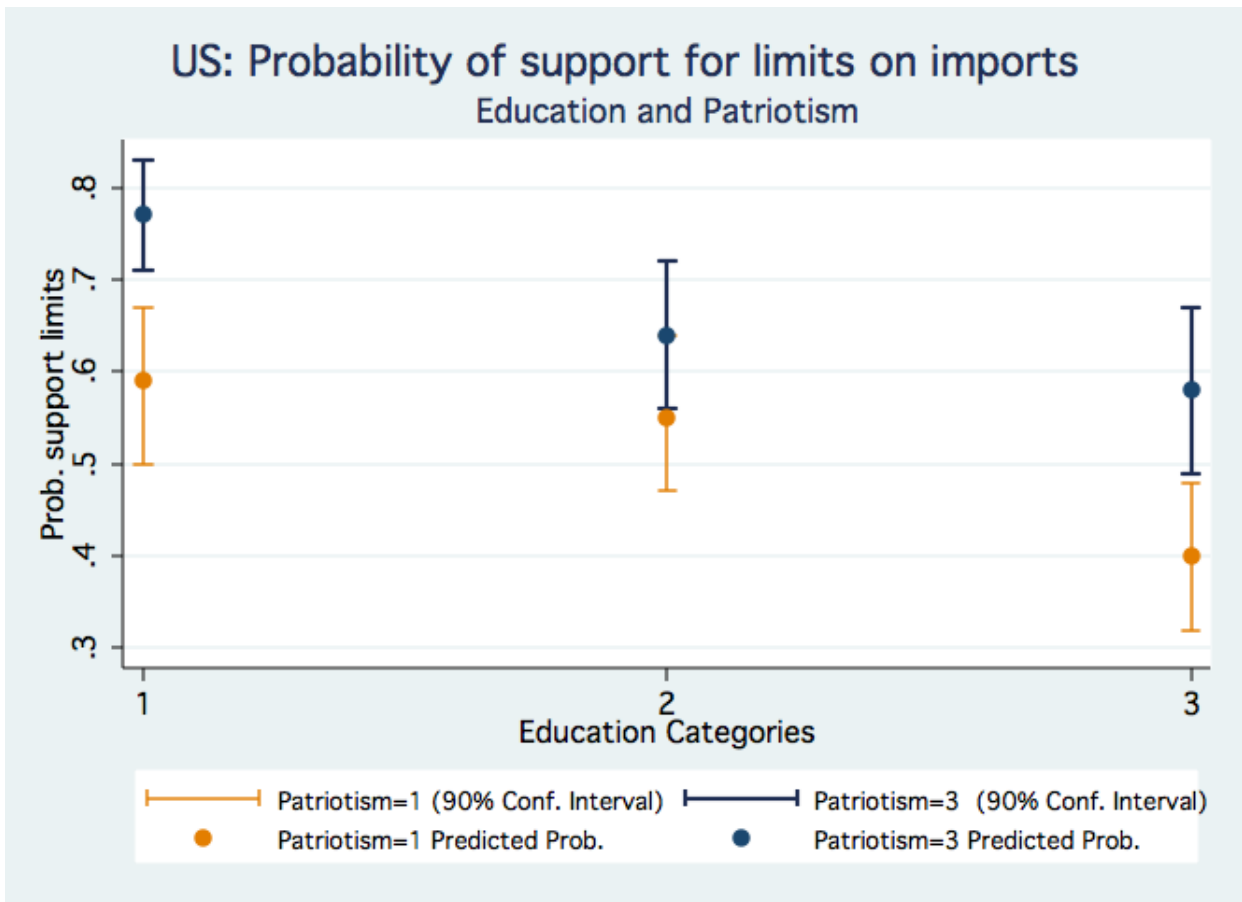
Figure 2: Chauvinism Index



Second factor from principal component analysis (see Table ??)

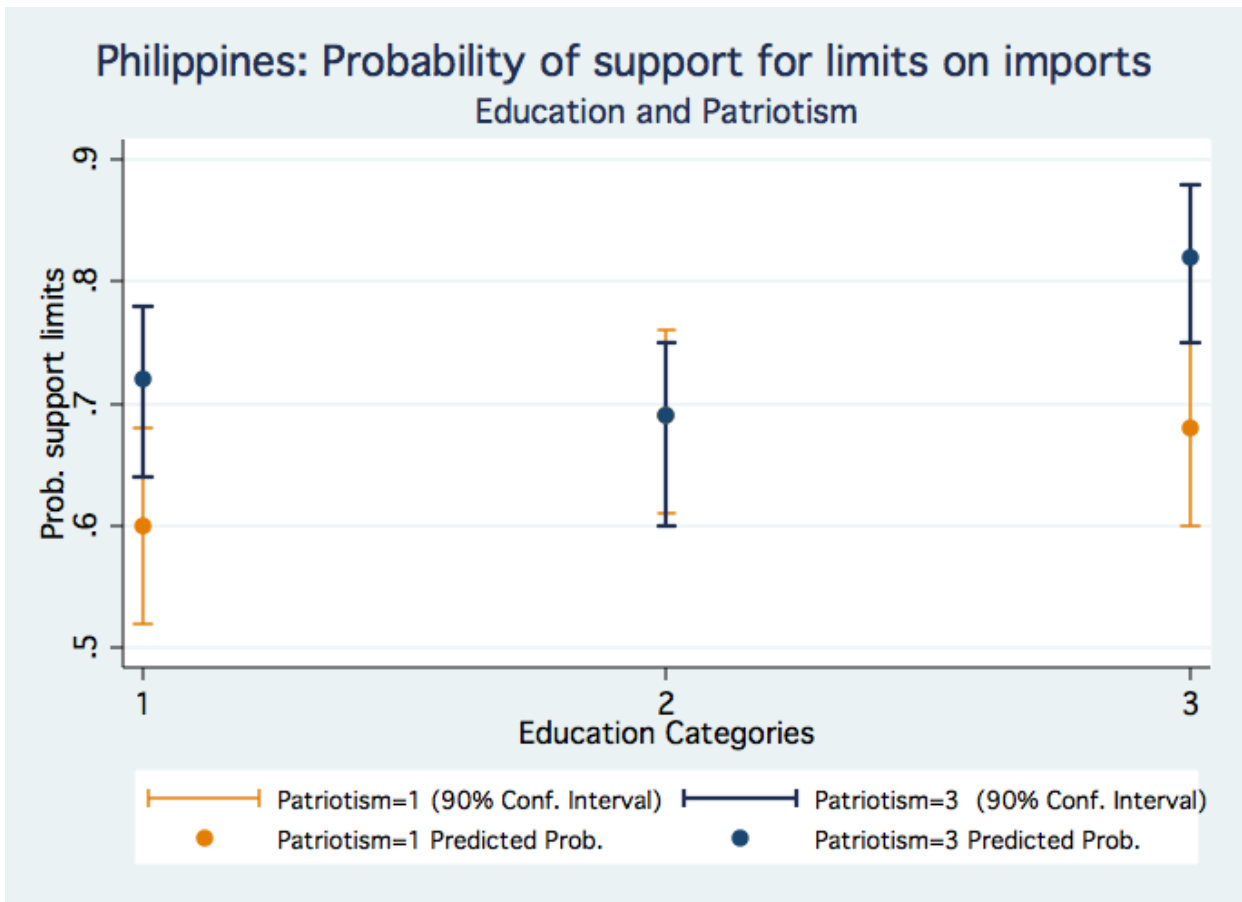


Figure 3: US: Predicted Probabilities of Supporting Restrictions on Imports (Education and Patriotism)



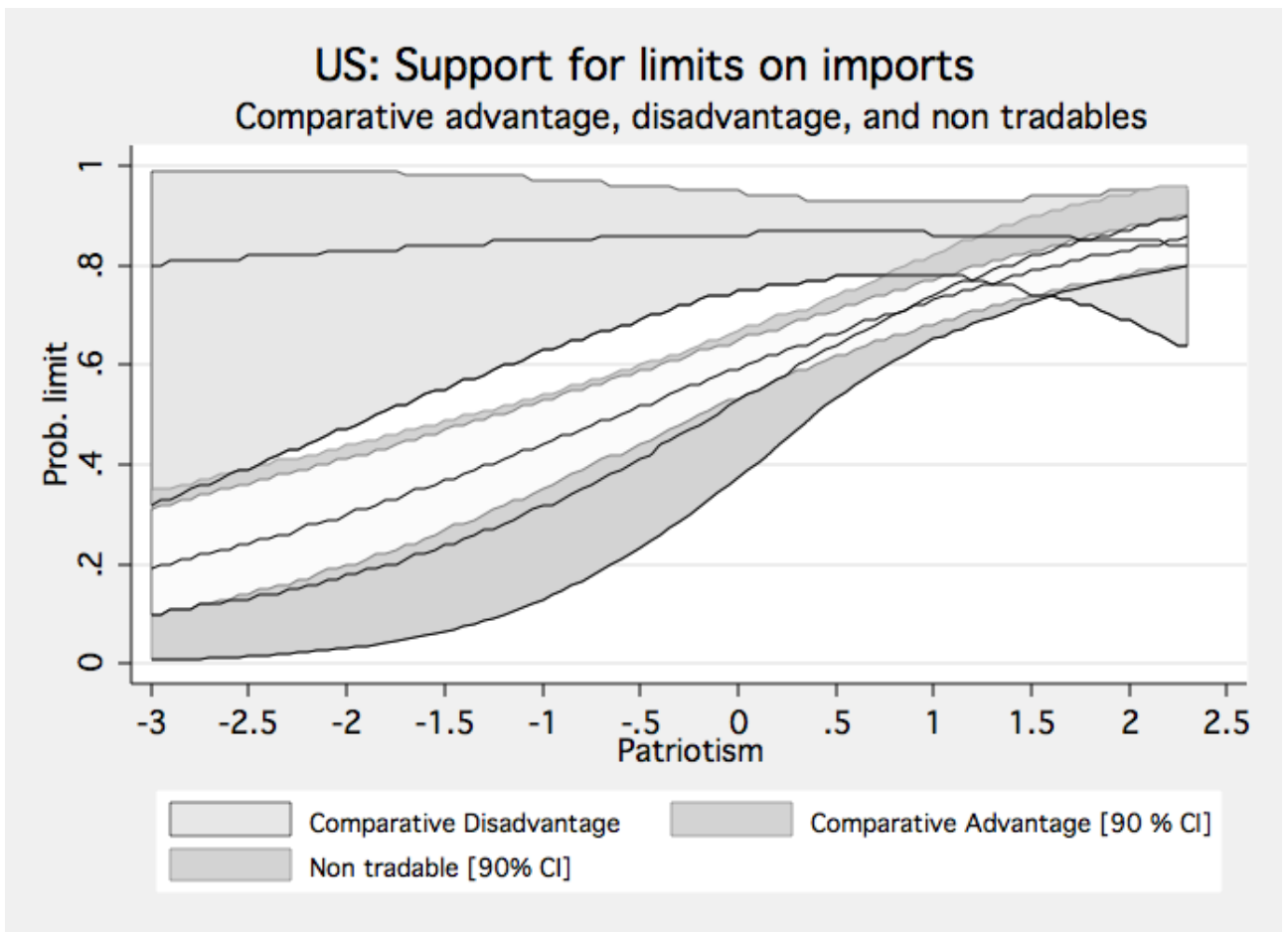
Note: 90% Confidence intervals from simulations using parameters from regressions in Table ??

Figure 4: Philippines: Predicted Probabilities of Supporting Restrictions on Imports (Education and Patriotism)



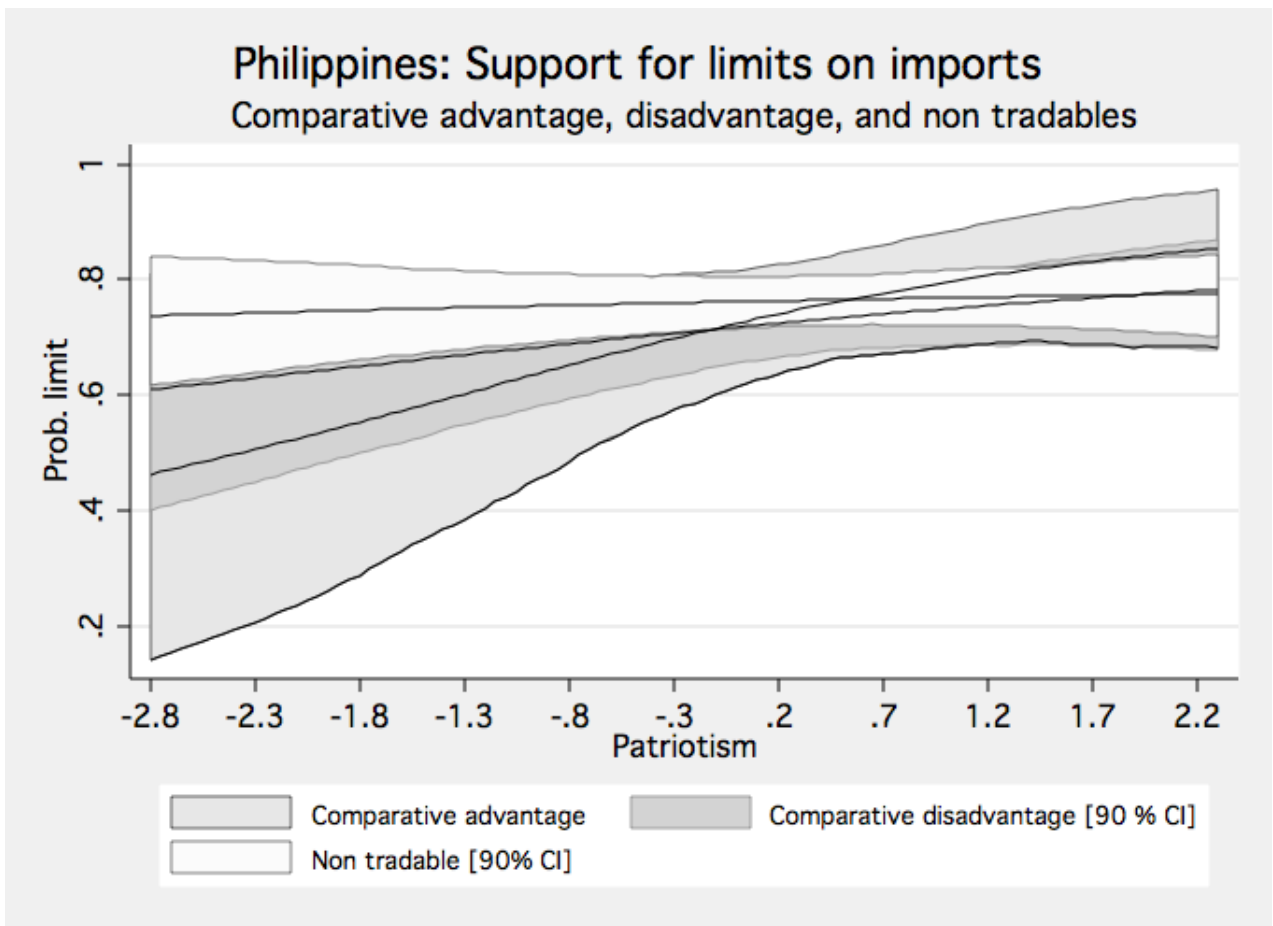
Note: 90% Confidence intervals from simulations using parameters from regressions in Table ??

Figure 5: US: Predicted Probabilities of Supporting Restrictions by Sector and Patriotism



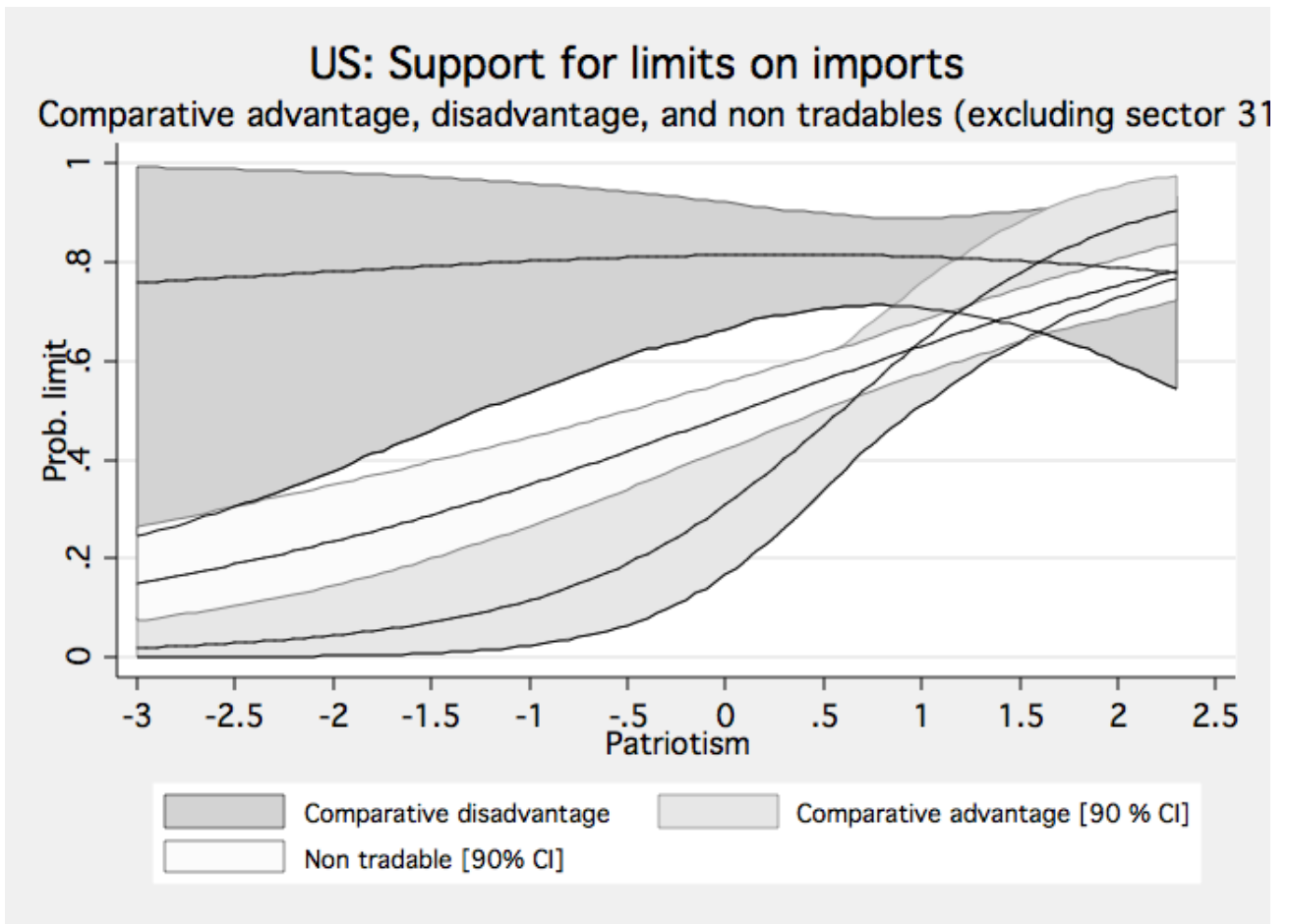
Note: 90% Confidence intervals from simulations using parameters from regressions in column United States (a) in Table ??

Figure 6: Philippines: Predicted Probabilities of Supporting Restrictions by Sector and Patriotism



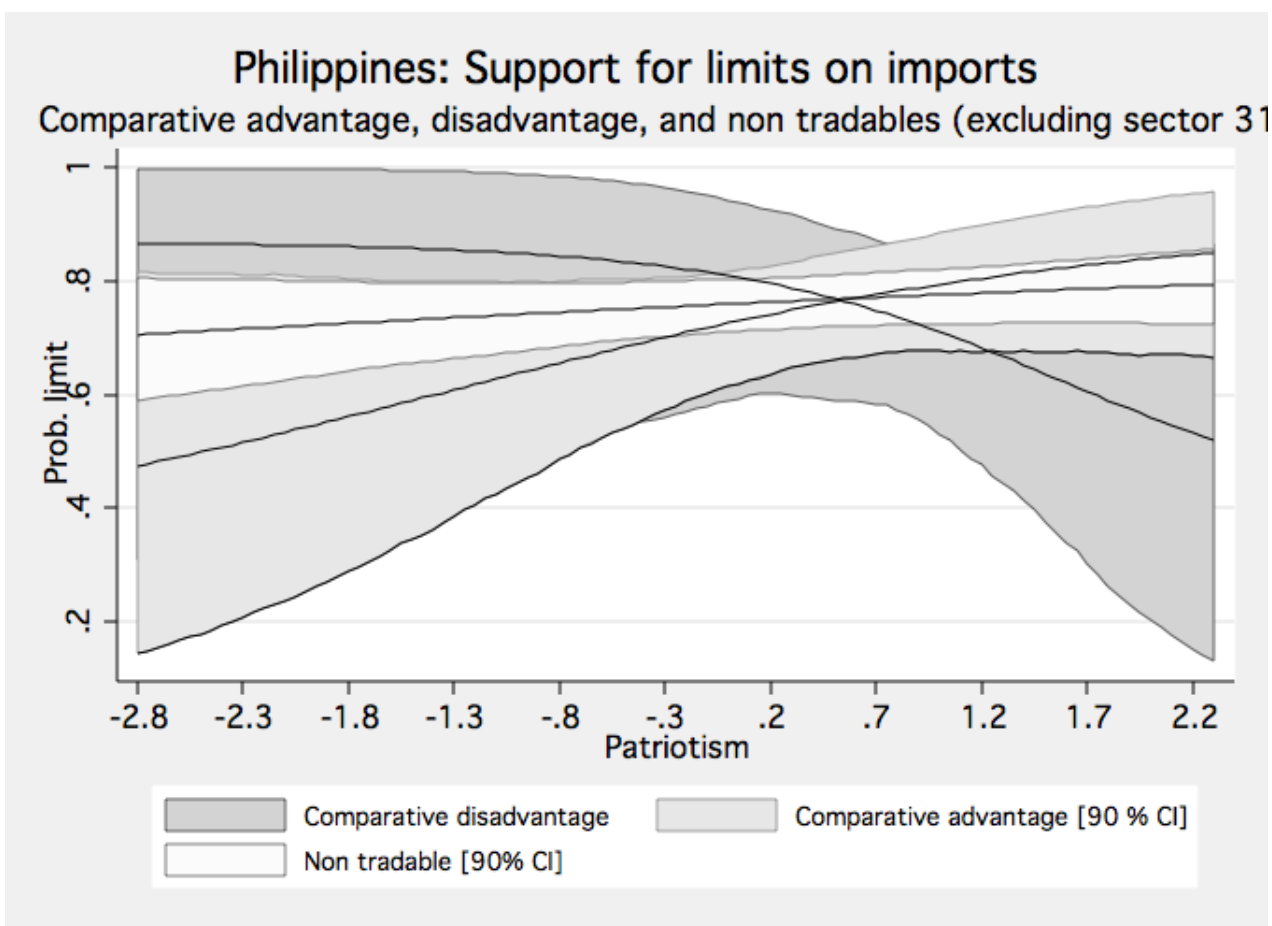
Note: 90% Confidence intervals from simulations using parameters from regressions in column Philippines (a) in Table ??

Figure 7: US: Predicted Probabilities of Supporting Restrictions by Sector and Patriotism (excluding food sector)



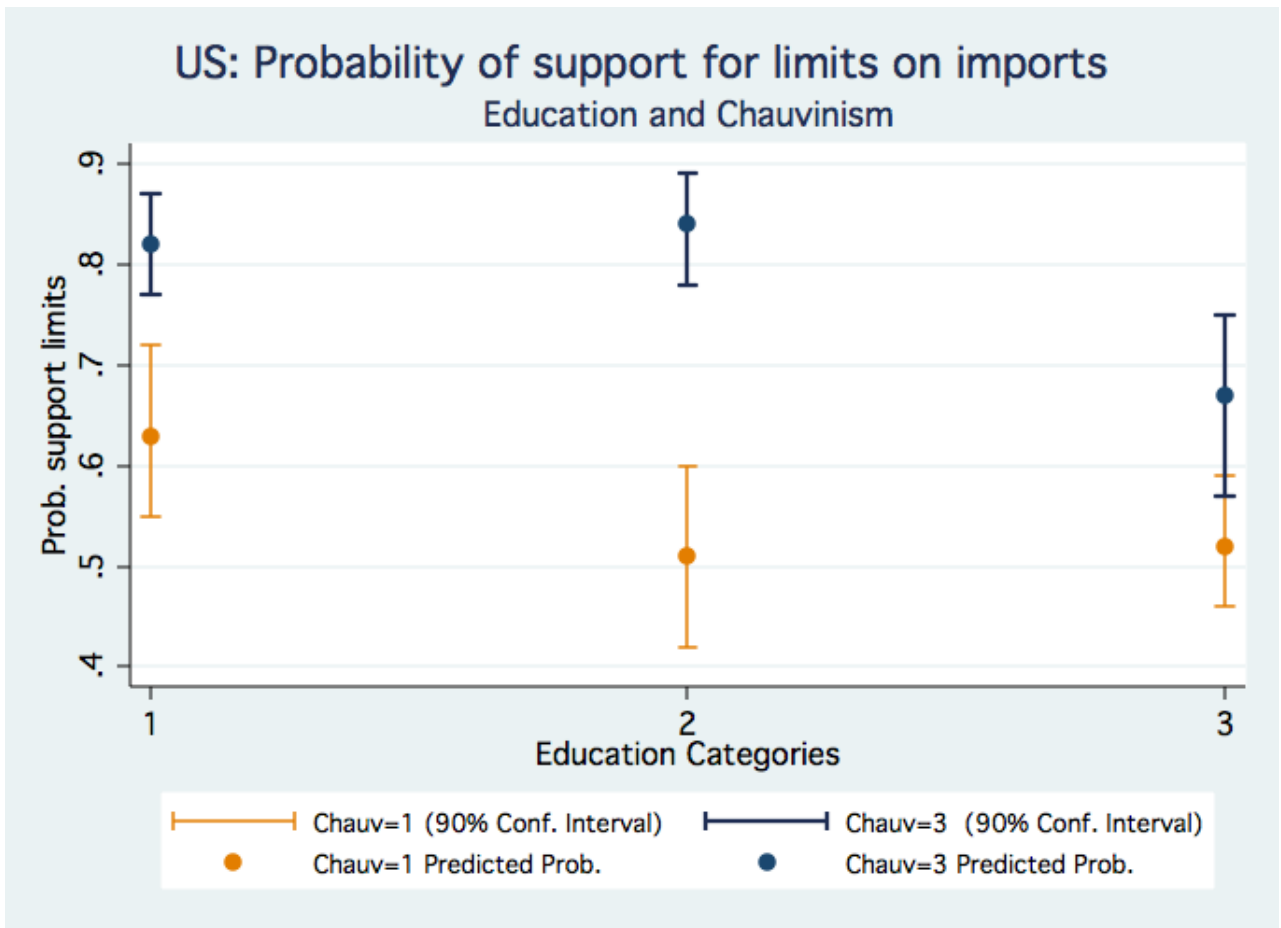
Notes: 90% Confidence intervals from simulations using parameters from regressions in column United States (b) in Table ??

Figure 8: Philippines: Predicted Probabilities of Supporting Restrictions by Sector and Patriotism (excluding food sector)



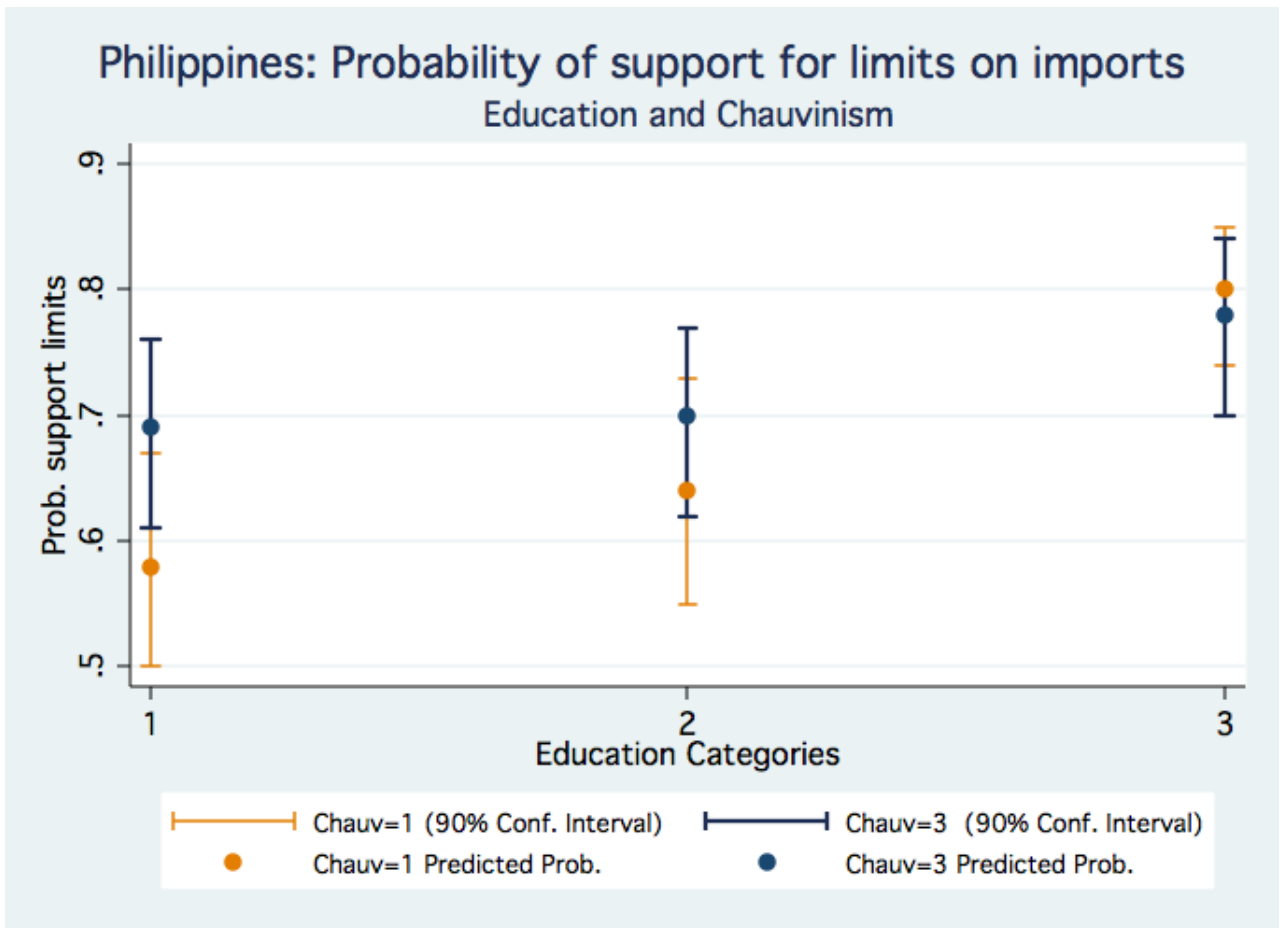
Notes: 90% Confidence intervals from simulations using parameters from regressions in column Philippines (b) in Table ??

Figure 9: US: Predicted Probabilities of Supporting Restrictions on Imports (Education and Chauvinism)



Note: 90% Confidence intervals from simulations using parameters from regressions in Table ??

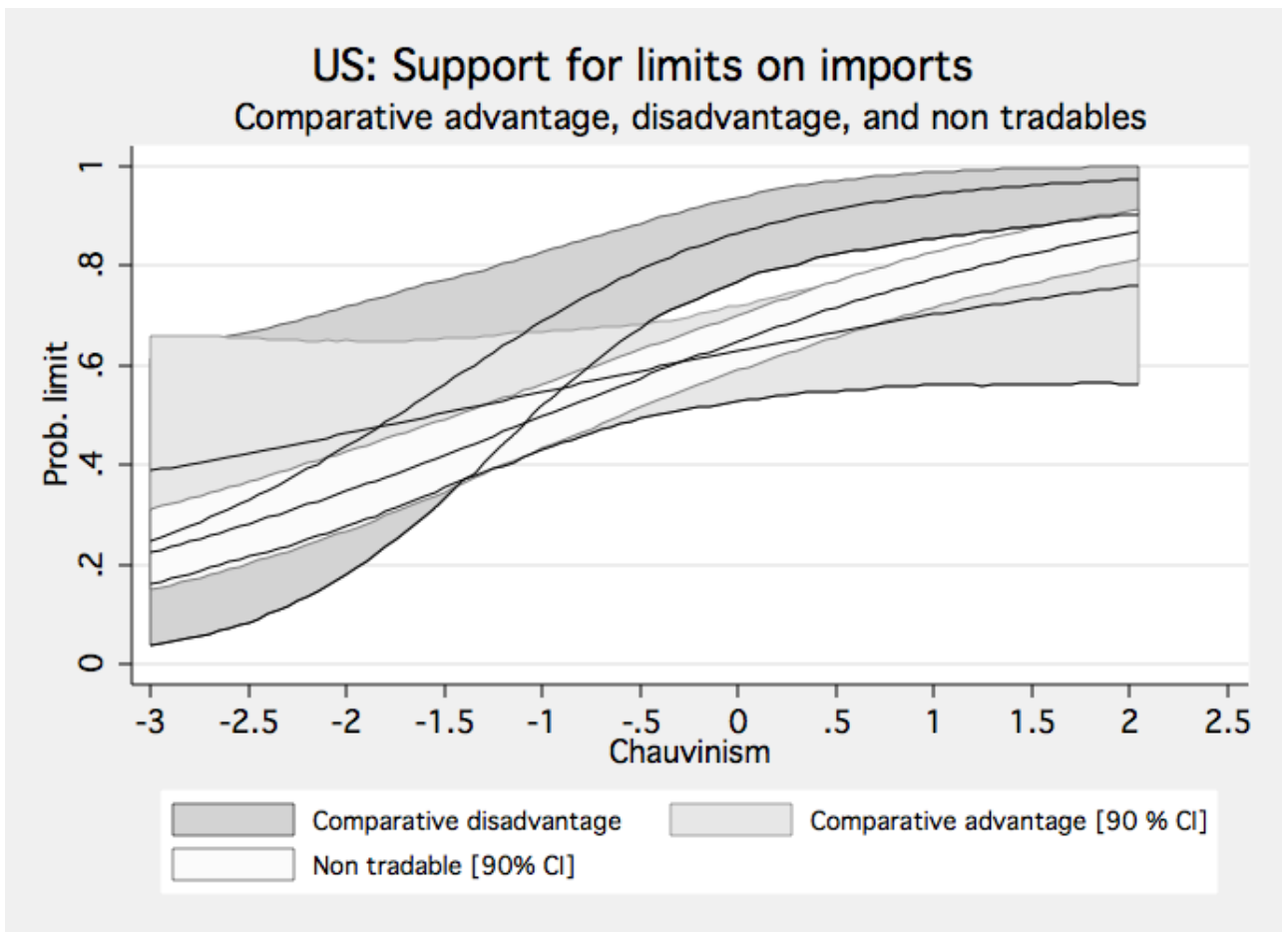
Figure 10: Philippines: Predicted Probabilities of Supporting Restrictions on Imports (Education and Chauvinism)



Note: 90% Confidence intervals from simulations using parameters from regressions in Table ??

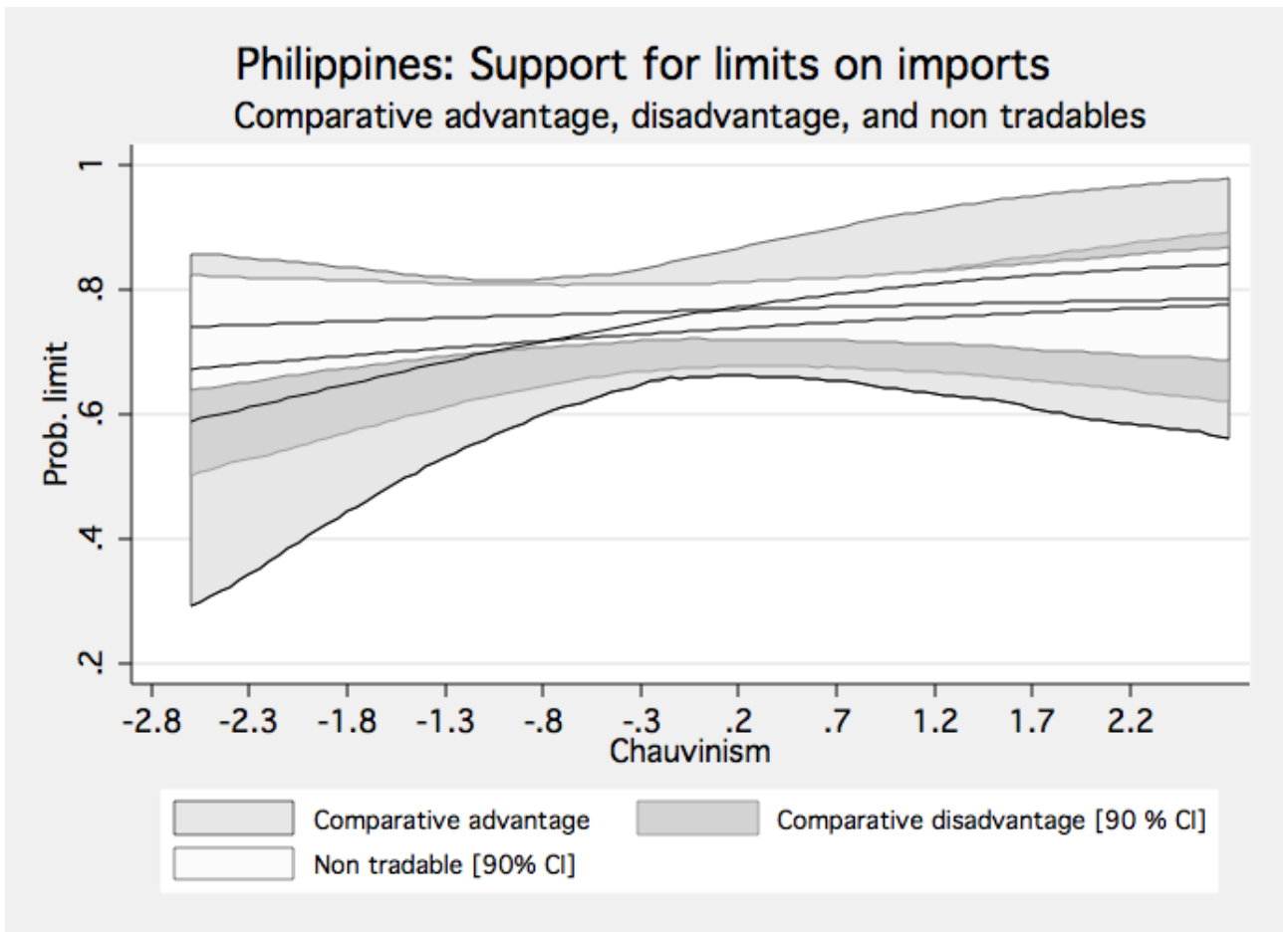


Figure 11: United States: Predicted Probabilities of Supporting Restrictions by Sector and Chauvinism



Note: 90% Confidence intervals from simulations using parameters from regressions in column United States (a) in Table ??

Figure 12: Philippines: Predicted Probabilities of Supporting Restrictions by Sector and Chauvinism



Note: 90% Confidence intervals from simulations using parameters from regressions in column Philippines (a) in Table ??