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Working Paper

Determinants of Individual Trade Policy Preference in the Philippines

PIDS Discussion Paper Series, No. 2004-16

Provided in Cooperation with:

Philippine Institute for Development Studies (PIDS), Philippines

Suggested Citation: Liao, Christine Marie; Pasadilla, Gloria O. (2004) : Determinants of Individual Trade Policy Preference in the Philippines, PIDS Discussion Paper Series, No. 2004-16, Philippine Institute for Development Studies (PIDS), Makati City

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Philippine Institute for Development Studies
Surian sa mga Pag-aaral Pangkaunlaran ng Pilipinas

Determinants of Individual Trade Policy Preference in the Philippines

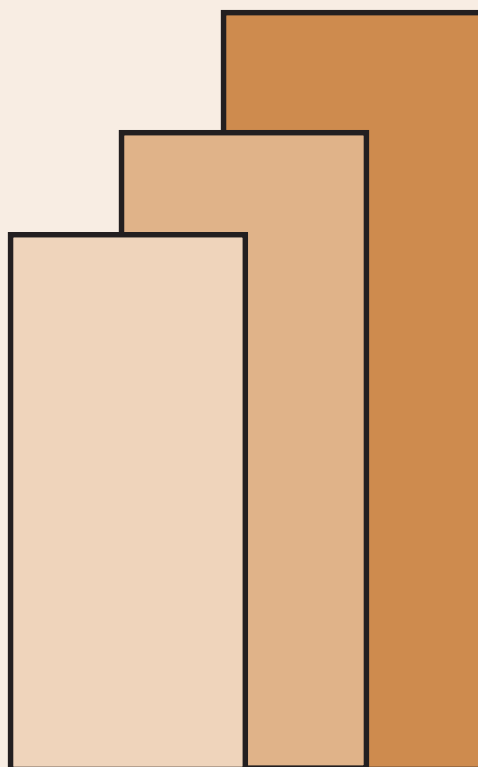
Gloria O. Pasadilla and Christine Marie Liao

DISCUSSION PAPER SERIES NO. 2004-16

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June 2004

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Determinants of Individual Trade Policy Preference in the Philippines

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This Draft: May 2004

Abstract

In a democratic country, economic policies succeed or fail depending on its political support. Open trade policies that were initiated and accepted years ago, in particular, can be reversed, within the limits of the country's international commitments, depending on the government's conviction as well as popular pressure. If trade policy were to be subject to a national vote, doubtless, many would show inclination towards greater protectionism. Using ISSP survey data for the Philippines, the paper examines factors that affect individual preferences towards more protectionism as well as towards greater trade liberalization. It finds, surprisingly, that years of education, economic class, employment in public sector, and urban population negatively correlate with pro-trade attitude. In the case of the negative relation of years of education with pro-trade preference, the authors argue that this has its justification in the Heckscher-Ohlin-Samuelson model of trade and factor returns.

Keywords: trade, policy preferences, political economy

1. Introduction

International trade and political economy are very close cousins. Trade policy has often been inspired not only by the theories of comparative advantage but also by political considerations. A recent example is the US government slapping of safeguard duties on steel imports to placate important segment of voters in a crucial election state. Never mind if the reason for their trouble is antiquated technology which makes US steel noncompetitive vis-à-vis, among others, those of South Korea. The strong lobby and political votes which the president would score through the temporary tariff cover dominated the (short-term) reckoning. In the Philippines and in other developing countries, political calculations contribute to reversals in trade policy such as increase in previously lowered tariff rates.

On the other hand, political votes are also affected by economic returns. Exporters, for instance, who benefit from increased access to foreign markets because of international agreements are often primary exponents of trade agreements. Domestic producers who feel the pinch of increased competition at home, in contrast, tend to be those that vote them down.

The paper attempts to explore the role of economic and noneconomic factors in individual trade policy preferences and add to the burgeoning empirical literature analyzing factors that influence pro- and anti-trade policy. It examines this using the 2003 ISSP national survey in the Philippines which asks 1,200 respondents how they feel about limiting foreign imports. Mayda and Rodrik (2001) used the same 1995 International Social Survey Programme (ISSP) data across several countries to run huge panel data regressions and found that non-economic considerations such as degree of patriotic sentiments, neighborhood attachments, and personal characteristics like gender, age and social status were significant in explaining trade policy preferences. As for economic considerations, the policy preferences essentially relate to how open or not-so-open trade policy affects the individual's current and future income. Here, however, the literature tends to be divided into two different camps.

A number of empirical work have tried to test two predictions of two different models that tackle how trade affects income. The Stolper-Samuelson model suggests that, where factors are mobile across sectors, freer trade tends to favor the factors which the economy is relatively abundantly endowed. For instance, the real return to skilled laborers, across all industries in countries where it is the relatively abundant resource, increases with open markets. The Ricardo-Viner hypothesis, on the other hand, considers a world where factors are immobile between industries, and thus, as a consequence, the factor income rise and fall with the fortune of the industry. Therefore, while Stolper-Samuelson predicts that political cleavages (or choices) would be formed along *factor* lines – where relatively abundant factor favors open trade – the Ricardo-Viner model predicts that the political cleavages will form along *industry* lines – where industries with comparative advantage would be for liberalized markets.

The jury is not yet out on which of the two better explains political cleavages in trade policy. Early empirical evidence suggests that trade policy preferences appear to form along *industry* lines. For instance, Magee (1980) observed that political lobbying activity from business and labor groups for the 1973 comprehensive trade bill before the US Congress tend to coincide along *industry*, rather than *factor*, lines. Irwin (1996) examined the 1923 British general elections, which he considered to be, essentially, a referendum on free trade, and noted that the voting patterns of counties were also organized along *industry* lines, rather than *factor* types. Weck-Hanneman (1990) analyzed the Swiss 1975 and 1986 referenda on processed foods tariff and on the means of protection in the sugar market, respectively. His findings also lend support for the Ricardo-Viner prediction that voting patterns are formed along *industry*, instead of *factor*, groupings.

Recent evidence, however, appears to be more supportive of the Stolper-Samuelson prediction. Scheve and Slaughter (2001) analyze individual survey data on American opinions about generic trade policy and found that they reflect *factor*, not *industry* interests. Mayda and Rodrik (2001) and O'Rourke and Sinnott (2001) examined a cross-country individual survey data that contain information on attitudes toward trade. Both papers find that trade policy preferences are robustly correlated with the individual's human capital (*factor*), and are thereby consistent with the Stolper-Samuelson model. Balistreri (1997) and Beaulieu (2002) both used the Canadian 1988 election survey which they interpreted as a *de facto* referendum on the Canada-US Free Trade Agreement. But while Balistreri (1998) claims that his result is in line with the Stolper-Samuelson prediction, Beaulieu (2002) finds that both the industry and factor lines are supported in his empirical result, which he interprets as attesting to the imperfect mobility of factors in the short-run. Similarly, Pasadilla (2002), using commune-level data of the Swiss referendum on the European integration in 1992, which she interprets as a vote for greater trade liberalization, arrives at a similar conclusion as Beaulieu (2002) that both *factors* of production and *industry* of employment of the individual, along with other demographic factors, have significant influence on the voting outcome.

The present paper, while lending support to the Stolper-Samuelson prediction, does not directly deal with the question of whether trade policy considerations in the Philippines are formed along *industry* or *factor* lines. This is primarily because we lacked industry information which could be mapped with the individuals in the sample. Rather, the emphasis is put into determining the economic and non-economic characteristics of those who tend to be protectionist or pro-trade. One may call this "profiling," but it is hoped that understanding individual incentives and characteristics can help policymakers sell open trade policy better.

The next section discusses in more detail the theoretical motivation for this study. Section 3 analyses the data and methodology used, section 4 presents the result of the estimation. Section 5 concludes.

2. Theory and Background

One of the puzzles in international economics is that, while there is near unanimity among economists that free trade is desirable, there is hardly any country that practices what mainstream economists preach. All countries, even the smallest economies which are supposed to benefit optimally from free trade, hoist some form of trade protection and have positive average tariffs. True, many small economies need tariffs for fiscal revenues, but even rich countries with relatively low average tariff structure hoist other forms of trade barriers like liberal anti-dumping policies, dubious standards requirements, quotas, and a host of other tacit forms of protection. Free trade, it seems, remains an unattainable ideal because of the propensity of economists, in the way they construct economic models, to assume political and institutional realities away.

The endogenous policy models where, aside from the traditional economic market, considerations are given to the political market, offer some of the answers as to why free trade is virtually nonexistent. Trade policies, in these models, are an equilibrating device that balances policy demand and supply in the political market. The political market consists of those that demand certain types of trade policy, i.e., interest groups, and those that supply it, i.e., policymakers under a given institutional structure. The policy that results is the outcome of the demand and supply, in very much the same vein that in the traditional economic market, price is the result of demand and supply of a commodity. In these endogenous

models, tariff policies may create distortions and create economic inefficiencies, but they, like price, are what cause the political market to clear.

But just as in economic market, individual preferences are what drive demand for goods, so too do individual preferences (over the domain of policy choices available to policymakers) underlie the demand for policy. The key premise in these models is that individuals form opinions about policy, or demand for one, that is consistent with the distribution effects of policy as predicted by economic models. Specifically, individual preferences on trade policy depend, among others, on how these policies affect current *factor* income.

A. Stolper-Samuelson vs. Ricardo-Viner Model

As discussed above, two standard models link trade policy and *factor* income: the Stolper-Samuelson model, where factors are assumed to be mobile across sectors; and the Ricardo-Viner model, where some or all of the factors are *specific to a sector* or are immobile. The first is considered to be more a long-run model, the second short-run. These standard models of international trade have well-defined implication for *distributive effects* of trade and hence for individual preferences. In the Heckscher-Ohlin- Samuelson (HOS) world of free factor mobility, trade liberalization changes relative product prices in favor of goods which intensively use the country's relatively abundant factor. The rise in the relative price of the product translates to an increase in the returns of the factors employed relatively intensively in its production. The implication, thus, is that the *factors* that are relatively abundant in a country would support free trade.

In the Ricardo-Viner world where some or all factors cannot move across sectors, income of specific factors is linked to their sector of employment. If their sector enjoys an increase in relative prices, or it is a sector with relative comparative advantage, the specific factor income also rises. If its sector suffers a relative price decline, or it is a sector with comparative disadvantage, then the specific factor experiences an income loss. Thus, the specific factor will either favor or not favor trade liberalization depending on whether his sector of employment has relative comparative advantage or none. In contrast, the factor, according to HOS, will favor or not favor trade liberalization depending on whether it is relatively abundant in the country or not.¹

To the extent that individuals are motivated by material self-interest and to the extent that this affects their preference for policy, Stolper-Samuelson model predicts that lobbying or voting preferences would go along *factor ownership* lines. That is, if factors are mobile across sectors, the relatively abundant factor will vote for free trade. In contrast, voting preferences under Ricardo-Viner model are expected to fall along *industry lines*, where specific factors employed in sectors with comparative advantage preferring free trade, and those employed in comparative disadvantage sectors opposing it.²

B. Direct and Representative Democracy

The demand for policy in the political market is not only affected by individual preferences but also by the mechanisms through which these preferences are aggregated and

¹ The two, however, are not mutually exclusive. It is possible that the abundant factor can be at the same time employed in a comparative advantage industry.

² In the case of workers in nontraded sectors which neither have comparative advantage nor disadvantage from trade, the Ricardo-Viner model predicts that they would support free trade, assuming that non-traded goods have positive income elasticities and trade liberalization increases national income. The Stolper-Samuelson reasoning likewise implies that, as long as the nontraded sector uses intensively a relatively abundant factor, then it would be for free trade (Scheve and Slaughter, 2001).

channeled. Two types of institutional mechanism are worth discussing in this regard: direct and representative democracy. In representative democracy, it is well established that special interest groups influence the trade policy choices of policymakers through their votes and/or offer of financial support to the party considering their preference. For example, in the Philippines where sugar is a political commodity, sugar barons can influence Congress' or bureaucrats' policy choice through offer of financial contribution for their re-election bid or offer of good recommendations to powers higher up.

On the policy supply side, bureaucrats are enabled, under a representative government system, to ignore general voter preferences to succumb to interest group politics. If different interest groups have equal representation in the political process, policy outcomes can still turn out to be economically efficient even in representative systems.³ The problem, however, is that with voting and bargaining costs, equal representation is hard to attain in representative democracies. Often, the potential losers in a given trade policy have greater incentives to lobby than the potential beneficiaries of trade liberalization. For example, consumers that will benefit from lower consumer prices because of more open trade tend to be many and dispersed and, hence, suffer from coordination problem. The domestic industries that are threatened by greater imports, on the other hand, are few and more concentrated and, therefore, are easier to organize for political lobby purposes. Hence, the critique of representative systems is that not all special interests get to be represented. In practice, those who expect to lose from market opening pursue their self-interest in voting more systematically than gainers, i.e., they are more effective in organizing and lobbying the bureaucrats for protection than those who can potentially benefit from free trade. The political equilibrium outcome can, therefore, be inefficient from the economic viewpoint.⁴

In a direct democracy,⁵ on the other hand, where voters vote on the subject matter directly and not through representatives, the influence of special interest groups in policy outcome is somewhat curtailed.⁶ In a direct democracy, the vote of the median voter is decisive. Thus, in a hypothetical economy where the voter distribution is such that the median voter is tied to a sector which does not have comparative advantage, the voting outcome would be expected to be on the side of trade protection. This would, for instance, be the case if, in a Ricardo-Viner model, the ownership of the specific factor is spread over a large fraction of the population. If on the other hand, the specific factor ownership in a sector with comparative disadvantage is concentrated, the voting outcome would be for free trade because the median voter would belong to the sector with comparative advantage.⁷

C. Asset Ownership

The effect of trade policy on current factor income is not the only determinant of trade policy preferences of individuals. Many studies have found that asset ownership as well as a host of other demographic factors or personal characteristics also influence trade policy preferences. The fact that individual utility function is not only constrained by current income but also by future income means that trade policies that affect savings and assets will likewise have implications on an individual's preferred trade policy. Put differently, trade policy

³ Economically efficient policy is defined loosely here as one that is not hostage to a few interest groups but which give the optimal outcome for the economy.

⁴ Free-rider and the problem of collective action are not the only sources of inefficient trade policy outcome. It can also result from other forms of asymmetries like: asymmetric distribution of wealth, intensities of preferences enforcing logrolling/vote trading, asymmetric distribution of information (Weck-Hanneman, 1990).

⁵ Switzerland is a typical example of a system where direct democracy prevails.

⁶ The role of interest group, though, remains significant in influencing voters' decision through various information campaigns.

⁷ Cadot (2002) gives an excellent discussion on median voter influence on trade policy outcomes.

preferences may hinge not just on *factor income* but on asset ownership as well, in such a way that an individual may support free trade through the income channel but oppose it through the asset channel (Scheve and Slaughter, 2001).

D. Noneconomic determinants

Trade policy preferences may also be influenced by some ideologies in a way that is not consistent with the usual economic rationale (i.e., effect of trade policy has on their income). For example, nationalistic or patriotic sentiments, desire for social change or self-sufficiency, etc. can sway the vote on trade policy towards protection regardless of whether or not Stolper-Samuelson or Ricardo-Viner models theoretically imply preference for free trade.

3. Data Analysis and Methodological Framework

The section discusses the ordered logit model regression that maps different individual characteristics to explain the probability of an individual being pro- or anti-trade. First, we discuss the basic characteristics of the data, particularly the main variable of interest, the '*protect*' variable (discussed below), and compare this in the 1995 and 2003 sample surveys. We note the significant increase in the number of individuals in the two samples that express anti-trade sentiments which we posit to be related to lackluster economic performance over the intervening years. We then go on to discuss the methodological framework, the construction of the variables, and the analysis of the results.

As discussed, we examine data from both 1995 and 2003 ISSP national survey and check if the same key determinants remain as significant influence on individual trade policy preferences across two different survey periods. It should be noted that the 1995 survey was conducted at a time when the WTO was newly established and the Philippines was undertaking very active liberalization policies. The 2003 survey, on the other hand, was taken after the country had a few years of globalization experience that, for better or worse, might contribute to any change in trade policy preference.

A. Survey Data, Economic Condition, and Trade Preference

The Social Weather Station (SWS) used multistage probability sampling to select the 1200 voting-age (i.e., 18 years old and above) respondents for the survey. Covering the entire Philippines, the research body targeted 300 individuals each from the National Capital Region, Balance Luzon (outside NCR), Visayas and Mindanao. The questionnaire contains more than 100 questions but we will discuss only the major policy variables in this subsection. Table 1 presents the salient characteristics of the 1995 and 2003 samples.

We think the comparison of the two samples relevant because the general population's openness to trade is typically a function of prevailing economic condition. A healthy, expanding economy is likely to welcome growth in trade, while if the economy is experiencing a downturn and is saddled with efficiency problems, it tends to be resistant to competition from foreign firms.

Table 1. ISSP Sample Characteristics

<i>Sample share of each characteristic (%)</i>	<i>2003 sample</i>	<i>1995 sample</i>
• Male	50.2	49.9
• Mean age	39.4 years	39.56 years
• Self-employed	32.1	23.8
• Employed in public sector	8.9	11.8
• Urban	54.1	62.7
• Economic Class		
Class AB	0.4	2.8
Class C	8.6	10.8
Class D	66.1	61.5
Class E	24.9	25.0
Percent share of anti-trade	72.7	67.5

Interestingly, the main variable or question that asks respondents how they feel about limiting foreign imports attests to this. We designate this variable which represents trade policy preference as ‘*protect*’ variable. This variable is the individual’s answer (in a 5-point scale: 1= strongly agree), to the question:

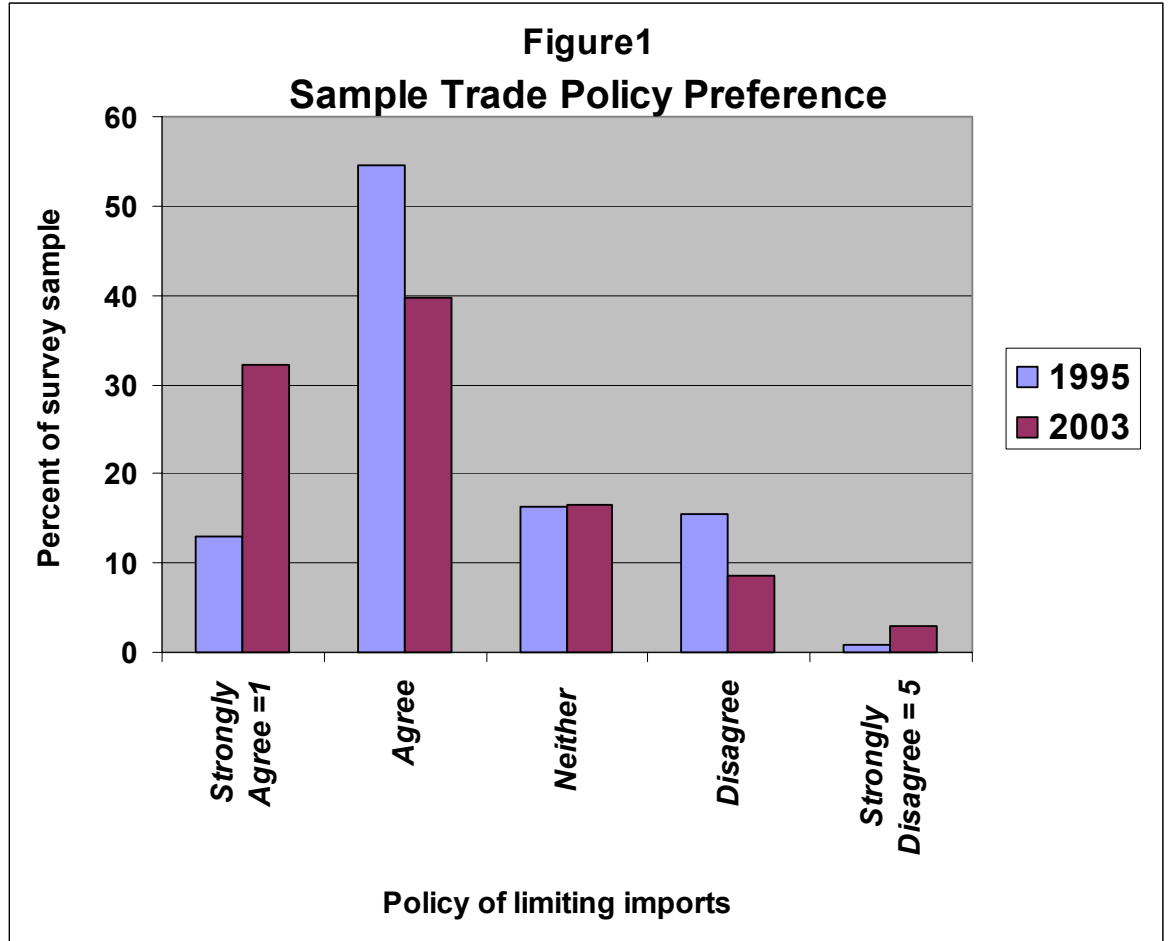
How much do you agree or disagree with the following statement: The Philippines should limit the import of foreign products in order to protect its national economy?

Thus, lower values of *protect* variable indicate anti-trade sentiments as this indicates agreeing to limiting foreign imports, while high values indicate pro-trade preference.⁸

In 1995, the mean value of the *protect* variable was 2.36, with 67.5 percent of the respondents choosing ‘strongly agree’ or ‘agree’ when asked if imports should be limited. Eight years later, the country, having experienced the effects of globalization and the Asian crisis, perhaps without the proper safety nets installed, is far less likely to have a positive opinion toward trade. The 2003 mean has dropped to 2.10, with 72.7 percent of the respondents now preferring to limit imports. This five percent increase in the sum of anti-traders is significant as it is, but what seems to be equally noteworthy is the tripling in the share of those who are strongly in agreement with import limitation. From a mere 13 percent in 1995, the share rose to one-third of all respondents (see Figure 1).⁹

⁸ Dropping the respondents who replied “don’t know” or “refused to answer” to the dependent variable under consideration, the final number of observations left in the data is 1,180.

⁹ Also of interest is the relative ranking of the Philippines in terms of its pro-trade and anti-trade stance relative to other countries which shows that Philippines is among those that have a generally anti-trade sentiment (see Appendix D).



B. Methodological Framework¹⁰

We use the individual response to the abovesited question on limiting imports as the dependent variable. Considering the discrete and ordinal variable response (i.e., 1 for strongly agree up to 5 for strongly disagree) in the dependent variable, we consider an ordered logit estimation.

We consider the anti- or pro-trade stand of an individual as a function of a vector of characteristics, X . Further, we consider an individual voting for or against open trade depending on marginal benefits and costs consideration, i.e. as discussed above, depending on the income effect of trade, for instance. But since the marginal benefits-costs consideration is generally unobserved, we consider a latent variable regression,

$$y^* = X\beta + \varepsilon$$

where ε has a standard logistic distribution with mean zero and variance one. Yet, though we do not observe the individual benefits of trade, we observe whether the individual support open trade or not. Presumably, in the case of strong agreement to limiting trade, for instance, the trade benefits to the individual are not commensurate to the cost, or that $y^* \leq \mu_1$ or some cut-off point, while for strong disagreement to trade protection, the benefits are way up, or $y^* \geq \mu_4$. For trade sentiments that lie in between, the benefits and costs valuation are likewise

¹⁰ This subsection follows the discussion in Mayda and Rodrik (2001), Greene (2003), and Stata Reference Manual.

sandwiched between two thresholds. Thus, if y_i is the trade preference vote of the individual and $y_i = 1, 2, 3, 4$, and 5, we can define the following probabilities:

$$\begin{aligned}\text{Prob}(y=1|X) &= \text{Prob}(y^* \leq \mu_1)^{11} = F(\mu_1 - X\beta), \\ \text{Prob}(y=2|X) &= \text{Prob}(\mu_1 \leq y^* \leq \mu_2) = F(\mu_2 - X\beta) - F(\mu_1 - X\beta), \\ \text{Prob}(y=3|X) &= \text{Prob}(\mu_2 \leq y^* \leq \mu_3) = F(\mu_3 - X\beta) - F(\mu_2 - X\beta), \\ \text{Prob}(y=4|X) &= \text{Prob}(\mu_3 \leq y^* \leq \mu_4) = F(\mu_4 - X\beta) - F(\mu_3 - X\beta), \\ \text{Prob}(y=5|X) &= \text{Prob}(y^* \geq \mu_4) = 1 - F(\mu_4 - X\beta).\end{aligned}$$

Here, μ_1, μ_2, μ_3 and μ_4 in which $\mu_1 < \mu_2 < \mu_3 < \mu_4$, are the cutoff values for the ordered logit model, and F is the cumulative distribution function of the logistic distribution.

$$F(z) = \frac{e^z}{1 + e^z} = \frac{1}{1 + e^{-z}}$$

Just like in the simple logit model, the coefficients in ordered logit regressions are not equal to the effect on the probabilities of changes of the independent variables. Instead, the coefficients have to undergo a process by which they are transformed before interpretation. The marginal effects of changes in the independent variables are computed as follows:

$$\begin{aligned}\frac{\partial \text{Prob}(y=1|X)}{\partial X} &= -f(\mu_1 - X\beta) \cdot \beta \\ \frac{\partial \text{Prob}(y=2|X)}{\partial X} &= -[f(\mu_2 - X\beta) - f(\mu_1 - X\beta)] \cdot \beta \\ \frac{\partial \text{Prob}(y=3|X)}{\partial X} &= -[f(\mu_3 - X\beta) - f(\mu_2 - X\beta)] \cdot \beta \\ \frac{\partial \text{Prob}(y=4|X)}{\partial X} &= -[f(\mu_4 - X\beta) - f(\mu_3 - X\beta)] \cdot \beta \\ \frac{\partial \text{Prob}(y=5|X)}{\partial X} &= f(\mu_4 - X\beta) \cdot \beta\end{aligned}$$

It should be noted that, keeping β and μ constant, an increase in the independent variables, X , has an unambiguous effect on the probabilities of the first and the last categories, but is ambiguous with regard the middle categories. A positive coefficient estimate of β_j means that, an increase in the regressor X decreases the probability of the lowest category (i.e., decreases the probability of anti-trade preference) and increases the probability of the highest category (i.e. probability of pro-trade preference). If we sum up the lowest two ($y = 1$ and 2) and the highest two ($y = 4$ and 5) marginal probabilities, we can, likewise, get unambiguous conclusion from a positive β_j . In particular,

$$\frac{\partial \text{Prob}(y=4|X)}{\partial X} + \frac{\partial \text{Prob}(y=5|X)}{\partial X} = f(\mu_3 - X\beta) \cdot \beta$$

or, given positive β_j , an increase in X increases the probability of at least a fair support for open trade.¹²

¹¹ $\text{Prob}(y^* \leq \mu_1) = \text{Pr}(X\beta + \varepsilon \leq \mu_1) = \text{Pr}(\varepsilon \leq \mu_1 - X\beta) = F(\mu_1 - X\beta)$.

¹² Stata is the program of choice for running the regressions, and in this software, the constant is not separately estimated but is rather subsumed by the cut-off values.

C. Variable Construction

Given the 100-odd questions asked in the survey, several variables can be pinpointed as having a theoretical link to trade policy preferences.

C.1. The Dependent Variable

As discussed, the trade policy preference is the individual response to the question of whether the country should limit imports. The five-point scaled response is 1=strongly agree, 2=agree, 3= neither agreeing nor disagreeing, 4= disagree, and 5=strongly disagree. We call this variable, *protect* variable, where higher values imply greater pro-trade preference, and low values imply anti-trade.

C.2. Independent Variables

Main Economic Variable

Based on the Hecksher-Ohlin discussion, factor endowments of the individual and of the country affects trade policy preference, with the relatively abundant factor that is intensively used in the export good supporting open trade. In the literature, factor endowment is usually represented by skill level, which is further proxied by *years of education*. We use the individual's actual years of education in this paper.

We also constructed an alternative proxy variable for skill, *skill345* variable. This is based on the responses of the individuals to a question pertaining to occupation, which was coded using ISCO¹³-88. Based on the five-level skill classification of the International Labour Organization, we recoded responses falling into the top three of these categories as "1" in the *skill345* variable, indicating high skill, and those falling into the bottom two were set to "0".

Demographic Variables

There is a whole list of different sociodemographic variables available from the survey, including gender, age, subjective economic class, trade union membership, religion, political affiliation, area of residence, employment in the public sector, self-employment and work status (see Table 2 for summary of these demographic variables). Many of these variables are similar to those that have been found important in other studies.

O'Rourke and Sinnott (2001) study found that those *affiliated with 'right-wing'* parties are more likely to have pro-trade preferences that are significantly higher than the rest. Thus, we recoded the response to the following question,

In politics, there are certain instances when 'left' and 'right' are mentioned by people. Where will you put yourself among the following?

1 for those who responded 'far right' or 'right conservative', and 0 for the rest.

Relative income, both family and personal, was obtained by finding the sample median, then setting all those above it to unity, and all those either at the median or below it to 0.

¹³ International Standard Classification of Occupations

Variables Having to Do with Values and Attitudes

Given that the survey has to do with national identity, there is a whole slew of questions focused on the topic of national sentiment. These is an important aspect of this study, given that both Mayda and Rodrik (2001), and O'Rourke and Sinnott (2001) found the degree of national pride to be a significant determinant of trade policy preferences in their studies, with an effect that is independent of economic considerations.

For this study, the first aspect of national pride refers to the individual's revealed closeness to his/her region or country or town or province, from a 4-point scale response, running from "1", very close, up to "4" not close.

In addition to closeness to the country, there are several other aspects of nationalism, patriotism and chauvinism that may be tested in relation to protectionist sentiments. Scaled agreement to the following statements

- 1.) I would rather be a citizen of [respondent's country] than of any other country in the world. (*national pride #2*)
- 2.) Generally speaking, [respondent's country] is a better country than most other countries. (*national pride #3*)
- 3.) [Respondent's country] should follow its own interests, even if this leads to conflicts with other nations. (*national pride #4*)
- 4.) The world would be a better place if people from other countries were more like the [respondent's countrymen]. (*national pride #5*)
- 5.) It is impossible for people who do not share [respondent's nationality] customs and traditions to become fully [respondent's nationality]. (*national pride #6*)
- 6.) People should support their country even if the country is in the wrong. (*national pride #7*)
- 7.) It is important for being truly [respondent's nationality] to have been born in [respondent's country]. (*national pride #8*)

are therefore explored as to their relationship with the dependent variable. The first six statement above are coded similar to the "protect" variable, on a scale of 1 to 5, from agree strongly to disagree strongly, while the responses to the seventh point range from 1 to 4, very important to not important at all.

Furthermore, it would be natural for individuals who are more secure with their country's relative stability and ability to withstand the pressures of the opening of trade to be more favorable toward globalization than those who have little confidence in the nation. Patterning itself after previous studies in the area, this paper looks into the effects of the respondent's pride in:

- 1.) the way democracy works in the Philippines (*pride in democracy*)
- 2.) the Philippines' political influence in the world (*pride in political influence*)
- 3.) the country's economic achievements (*pride in economic achievements*)
- 4.) the social security system (*pride in SSS*)

Again, the rating scale for this variable ranges from 1 to 4, very proud to not proud at all.

The expected signs for these variables, based on previous studies and economic theory, are as follows:

Table 2. Expected Relations with Open Trade Sentiments

<i>Variable</i>	<i>Construction</i>	<i>Expected Sign</i>	<i>Basis</i>
Age	Actual	-	Mayda and Rodrik (2001), O'Rourke and Sinnott (2001), Pasadilla(2002), Balistreri(1997)
Gender	1= male, 0=female	+	Mayda and Rodrik, O'Rourke and Sinnott, Scheve and Slaughter(2001)
relative income	1= above sample median, 0 otherwise	+	Mayda and Rodrik
economic class	Class E = 1, D=2, C=3, AB=4	+	Mayda and Rodrik, Balistreri
Religion	1=non-Catholic, 0=Catholic	+	O'Rourke and Sinnott
Right-wing party affiliation	1= right and far right, 0 otherwise	+	Scheve and Slaughter
area of residence	1=urban, 0= rural	+	Mayda and Rodrik, O'Rourke and Sinnott, Balistreri
unemployment	1= unemployed, 0 otherwise	+	Pasadilla,O'Rourke and Sinnott
self-employment	1= self-employed, 0 otherwise	+	O'Rourke and Sinnott
public employment	1= non-government, 0= government	+	O'Rourke and Sinnott
union membership	1= non-member, 0= member	+	Mayda and Rodrik, Scheve and Slaughter, Balistreri
skill	1= high skilled, 0 otherwise	-	Heckscher-Ohlin-Samuelson
Values1	National pride variables #1-8 as discussed above	+	Mayda and Rodrik, O'Rourke and Sinnott
Values 2 ¹⁴	Pride in democracy, etc.	-	Mayda and Rodrik, O'Rourke and Sinnott

4. Regression Results

4.1 Naive Demographics Model

As a first pass, we went through several demographic variables that were tested and/or found significant in other studies. The first model included standard demographics such as age, gender, economic class, religion and affiliation with the right. Work-related dummy variables for unemployment, self-employment, employment in the public sector and

¹⁴ The negative expected sign is due to the fact that values 2 are coded such that higher values mean not proud about how democracy works, etc. Previous results, on the other hand, have found that pride is supposed to influence a greater pro-trade stand. Hence the negative

membership in a trade union, as well as area of residence, were added to these in the second model. A third model, testing for the influence of income, included relative family income, while a fourth took into account relative personal income instead (*see Appendix A*).

Variables that were found to be significant in different specifications were gender, economic class, personal income, area of residence and employment in the public sector.

Gender

Unlike results from other studies, we find that women in the Philippines are more likely to agree with more open trade policy than men. More specifically, being female increase the probability of disagreeing with trade restrictions by anywhere between 2.0 to 2.4¹⁵ percentage points (significant at the 5-10% level).

Two reasons for this distinct gender effect may be as follows. First, it has been noted that the increased globalization has led to the “feminization of employment” because of increased reliance on women’s contribution in the labor force. This view is especially fitting in developing countries such as the Philippines, and as a result, it is no surprise that the influence of gender would be different from the results in the previously referenced studies, which were all done for developed Western nations. In particular, using manufacturing sub-industry level data from 1993 to 1997, Orbeta (2002) found that women in the manufacturing sector are positively affected by export activities.

Second, women may also be more pro-trade based on the effects that they perceive as buyers. In a matriarchal society as the Philippines, where women are household managers and are the typical “shoppers” for household needs, they would more easily observe the tangible changes that globalization brings, including decreases in prices and the greater variety of available goods and services.

Economic Class/Personal Income

The significance of economic class is affirmed in this study. Again, the results are different from those in developed nations, where the higher classes were found to be more keen to liberalize. In the Philippines, the higher one’s economic class, the more protectionist one becomes. This may be understood by remembering that the higher classes are the owners of businesses in the country. These are the ones who have benefited from protection in the past and are therefore wary of changes in the status quo. As capitalists, they are naturally opposed to imports, which will serve to provide competition for the products they sell.

Similarly, those who earn above the median income are more protectionist than those earning below it. Based on Model 4 (Appendix Table A), moving from below to above median income earner decreases the probability of disagreeing with import restrictions by around 2.7 percent (significant at the 5% level). It may be conjectured that those with high incomes are either owners themselves, or those in high positions in specific firms, whose fortunes are therefore intimately tied to the fortunes of these companies upon the opening of trade. The reasoning behind the cleavage in terms of relative income thus follows the one on economic class above.

Urban/Rural

Area of residence, urban or rural, is yet another significant factor, perhaps the strongest in the set of explanatory variables in terms of significance level, with being urban decreasing an individual’s probability of disagreeing with trade restrictions by a range of 4.4 to 4.8 percentage points (significant at the 1% level). The results here are different from those

¹⁵ Sum of the two marginal probabilities $dP(y=4)$ and $dP(Y=5)$.

in other nations, wherein the urban respondents were more open to liberalization, presumably because of a more cosmopolitan outlook, than their rural counterparts. We justify this result in that, in the Philippines, those in the rural areas often find themselves employed in agriculture. While agriculture is admittedly not a comparative advantage industry in the Philippines, it has been well-documented that the demand for its products often outstrips their supply, so much so that the country has already been importing considerable amounts of rice and other key products from neighboring nations. The fact that it has been shown that there is room for both domestically-produced and imported grains in the market may be a reason for those in the rural areas not to feel threatened by products coming in from other nations. In addition, the poor infrastructure in the country makes transportation of such goods more difficult, erecting natural barriers and allowing the small-time farmers to still be able to market their goods with relative ease (in comparison with whatever imports that may be arriving at certain ports) to neighboring towns.

Employment

Employment in the public sector makes a person more protectionist, decreasing the probability of disagreeing with trade restrictions by 4.7 percentage points, again significant at the 1% level and robust across various models. One important implication of the removal of trade barriers is reduction in government revenues. With roughly 20 percent of government income coming from import taxes and other import duties, those who are likely to be negatively affected by this drop in resources are those employed by the public sector, for the reason that the most probable reaction to the reduction in funds is the trimming of the bureaucracy. Secondly, it can also be posited that trade barriers allow government employees to exercise certain amount of power, specially if they benefit from being recipients of requests with regard trade protection. In other words, trade barriers allow public employees some rent-seeking behavior. A complete breakdown of trade regulation would take away the influence of these bureaucratic middlemen, and this is something they naturally loathe to support.

4.2 The Factor Endowments Model

To test whether trade policy preferences do reflect the Heckscher-Ohlin view of the world, the variable of years of education as a proxy for skill level was employed. The Philippines is considered to be abundant in unskilled labor compared to its trading partners, and a priori, if the Heckscher-Ohlin model truly holds, it is expected that skilled workers will be resistant to globalization. This theory is proven by our regression results (*see Appendix B*).

The first run of the factor endowments model included only the years of education variable, plus two basic demographic variables proven significant in the previous models: gender and economic class. A second run added other demographic variables from the naive demographics model that was found to be significant across different specifications, namely area of residence, personal income and employment in the public sector. A third model substituted the *skill345* variable for the years of education variable in the first model, while the fourth is a combination of different significant demographic variables and years of education.

From the different runs, it is clear that the negative relationship between skill and pro-trade sentiment does hold in the country, across various specifications and utilizing two different proxies for the skill variable. This is an important result in favor of the factor endowments view. While there have been many previous studies indicating that, for example, the higher skilled are more likely to be pro-trade in developed countries, these results maybe postulated as possibly being explained by other reasons. It may be conjectured that those who

are more highly educated are likely to be more aware of the benefits of free trade as espoused by universities that believe in classical models of trade. The fact that this does not hold for the Philippines, however, as is borne out by our results, is a clear indication that there may be another force at work here. Contrary to what might be perceived as common sensical, the lower-skilled do view the opening of trade to be beneficial to them, and are therefore more pro-trade than the skilled workers, who are predicted by the Heckscher-Ohlin model to be likely to lose out in a country that specializes in sectors that utilize intensively the less-skilled labor.

Admittedly, the last model is the only one that truly demonstrates the statistical significance of the skill variable, and this situation is notably different from the case in 1995. In the earlier survey, the cleavage between the skill and the unskilled was not only very significant at the 5% and in some cases even the 1% level, attaining z-scores consistently higher than 2 in magnitude across different specifications, but the decreases in the marginal probabilities were also much higher.¹⁶

The effect of skill in this model is notably distinct from demographic variables such as economic class and locale (or area of residence). While it may be hypothesized that these three variables may be correlated because those in higher economic class also tend to have higher education and live in urban areas, alternative regression runs did not give any evidence to support this. The dropping of one, or the other, or both, of the variables did not significantly affect the statistics associated with years of education.¹⁷ This result mirrors those of other studies that found that the influence of these demographic determinants is separate and additive.

This lower level of significance of skill in the 2003 survey is yet another negative reflection on the effects of opening to trade. The economy has not done well for itself over the past eight years, and it may be fair to say that there has been no real progress even in sectors that may be considered to be intensive in unskilled labor. To validate this conjecture, we examined wage intensities in different manufacturing industries and compared these with average growth in the volume of production from 1995 to 2003. Going by the definition of an unskilled-labor-intensive industry being one with a lower total compensation over total cost ratio compared to an industry which hires many skilled worker, we found mixed results. There is no clear growth in the unskilled labor sectors.¹⁸ With both skilled and unskilled workers not patently benefiting from trade, the increase of protectionist sentiment in the 2003 sample survey in the country is no surprise. Instead, the general consensus in the country is decidedly protectionist, over different levels of skill. This provides early indication that other, noneconomic factors, may play a significant role.

4.3 The Values and Attitudes Model

The first run of this model included a laundry list of all variables having to do with nationalistic sentiment, as outlined in section 3.c in this paper. A second run included years of education, while the third model added variables found to be significant in the naive demographics model. The last run considered the values variables, years of education, and the demographic factors included in the last, most significant run of the factor endowments model.

¹⁶ A simple comparison would be as follows: In model #1 for factor endowments (see Appendix B), the marginal probability (y=4) for years of education was -.0007163, with a z-score of -1.48. Its 1995 counterpart had a marginal probability (y=4) of -.003193, with a z-score of -3.28.

¹⁷ Interaction terms were not significant either.

¹⁸ This result is not shown here but is available from the authors upon request.

As in previous studies, the respondents' pride in democracy, political influence, the economy and social security services were all tested. Of these, only pride in democracy was found to be significantly related to trade policy preference. Interestingly enough, those who listed themselves as being more proud of the way democracy works in the country were found to be more protectionist.¹⁹ This is a finding that is once again at odds with other studies. A theory that may be put forth to explain this is that those who are happy with the way democracy works are more protective of the country. It could be that these people fear that opening up to trade might negatively impact upon the balance that currently exists. Democracy, after all, deals with a nation's ability to determine itself. It is an "internal" variable, as opposed to external political influence (whose impact was found to be negatively correlated with protectionist sentiment, such that the more proud one is of his country's political influence, the less protectionist he is likely to be), and so it is highly likely that those who take pride in democracy would be reluctant to open to the possibility of outside forces gaining significant influence in the country due to globalization. Western nations such as the United States, being more politically influential all over, are naturally less beset by such concerns.

Closeness to one's town, province, country and continent were generally found to be positively related to protectionist sentiment, but none of these were found to be significant determinants of trade policy preferences, even up to the 10% level.

Of the eight aspects of nationalism, only one was consistently found to have a strong relationship with trade opinion. This was aspect #2, in which the respondent signified whether he agreed that he would rather be a citizen of the Philippines than any other country in the world. Those who strongly agreed with this were more protectionist, as expected.

In any case, the results in this section all go to show that ideology does have a part to play in the determination of trade policy preferences, with those being more nationalistic and taking more pride in the internal arrangements in the country having a significantly more protectionist bent than those who are less so.

4.4 Combined Models

The final combined model for this study combines all the significant variables in the previous three subgroups of models namely, age, years of education, employment in the public sector, relative personal income, and national pride as the final determinants of trade policy preference. The z-statistics of the variables in the final combined model are mostly significant, and the coefficients generated are as expected and as previously discussed in earlier runs.²⁰ However, the effect of years of education is relatively weak compared to those of the other variables.

¹⁹ Note that pride in democracy is coded as 1 = proud up to 4 = not proud. Hence, the positive marginal probability estimates means that those who are most proud of Philippine democracy are those that favor trade restrictions. Conversely, the more unproud they are about Philippine democracy, the more they favor open trade.

²⁰ When the combined model included economic class and locale, however, years of education became statistically insignificant suggesting very weak influence of education on trade policy preference.

Table 3. Final Combined Model

<i>Method</i>	<i>Ordered logit</i>	
<i>Dependent Variable</i>	<i>y=protect</i>	
	dPr(y=5)	dPr(y=4)
years of education	-0.0003883	-0.0009592
	-1.87*	-1.93*
public employment	0.0120329	0.0309075
	2.81***	2.91***
age	-0.0000617	-0.0001524
	-0.58	-0.58
relative personal income	-0.0067861	-0.0167862
	-1.94*	-2.01**
gender	-0.0044568	-0.0110028
	-1.29	-1.31
national pride #2	0.0070964	0.0175319
	3.32***	3.67***
pride in democracy	0.0039299	0.0097089
	2.19**	2.27**
<i>Pseudo-R2</i>	0.0145	0.0145
<i>No. of Observations</i>	1152	1152

+ The table shows the estimated marginal probabilities of being pro-trade, given an increase in the value of the relevant regressor, holding all other regressors at their mean value. The z-scores of the marginal effects are presented under each one. Asterisks pertain to significance, with * being significant at the 10% level, ** being significant at the 5% level, and *** being significant at the 1% level.

The results of this study, in quick comparison with the results of the six others referenced in depth, are shown in Table 4. It should be noted that the paper has found results that are contrary to those found in studies for developed economies. In particular, it yields different variable signs for gender, area of residence or locale, relative income, social class, and years of education. As previously discussed, there are specific country characteristics peculiar to the Philippines that explain this result.

Table 4. Comparative Table of the Results of Various Studies

Variable	Philippines	USA a/	Switzerland b/	Canada c/	Cross-country d/	Cross-country e/
<i>Demographics</i>						
Age	No	No	Yes (-)	Yes	Yes (-)	Yes (-)
Gender	Yes (-) *	Yes (+)	No	Not tested	Yes (+)	Yes (+)
Citizenship	Not tested	Not tested	No	Not tested	Yes (-)	Not tested
Locale	Yes (-) *	Not tested	No	Yes	Yes (+)	Yes (+)
Public sector	Yes (+)	Not tested	Not tested	Not tested	Not tested	No
Unemployment	No	No	Yes (+)	Not tested	Not tested	No
Self-employment	No	Not tested	Not tested	Not tested	Not tested	Yes (-)
Union membership	No	Yes (+)	Not tested	Yes	Yes (+)	No
Relative Income	Yes (-) *	Not tested	Not tested	Yes (not relative)	Yes (+)	Not tested

Mobility	Not tested	Not tested	Not tested	Not tested	Not tested	Yes (+)
Religion	No	Not tested	Not tested	Not tested	Not tested	Yes (+)
Affiliation with the right	No	Yes (+)	Not tested	Not tested	No	Not tested
Social class	Yes (-)*	Not tested	Not tested	Yes	Yes (+)	Not tested
<i>Factor Endowments</i>						
Years of education	Yes (-) *	Yes (+)	No	No	Yes (+)	Not tested
Skill	Not tested	Yes (+)	Yes (+)	Not tested	Not tested	Yes (+)
<i>Specific Sectors</i>						
CA/CD Industry ²¹	Not tested	No	Yes (+)	Yes	Yes (+)	Not tested*
<i>Other Variables</i>						
Nationalist sentiment	Yes (-)	Not tested	Not tested	Not tested	Yes (-)	Yes (-)
Asset ownership	Not tested	Yes	No	Not tested	Not tested	Not tested
Notes: A positive sign means that an increase in the variable increases the probability that the respondent is pro-trade. 'Yes' means statistically significant. * means variable sign is different from other studies. a/ Scheve and Slaughter (2001); b/ Pasadilla (2002); c/Balistreri (1997); d/ Mayda and Rodrik (2001); e/ O'Rourke and Sinnott (2001)						

To test for the robustness of the results, ordered probit regressions using the same independent variables were run for the final combined model. Both the signs and the significance of the variables largely remained the same. Lastly, a simple OLS regression of the final model also bore similar results in the signs of the variables.²²

Table 5. OLS Regression of Final Model

Number of observations = 1152		Prob > F = 0.0000		
R-squared = 0.0281		Adj R-squared = 0.0222		
protect	Coef.	Std. Err.	t	P> t
years of education	-.0068524	.0037608	-1.822	0.069
public employment	.2853586	.1126567	2.533	0.011
age	-.0006393	.0021152	-0.302	0.763
relative personal income	-.1113494	.067674	-1.645	0.100
gender	-.091561	.0669532	-1.368	0.172
pride in democracy	.0758353	.0331994	2.284	0.023
national pride #2	.0950816	.0368379	2.581	0.010
constant	1.674394	.1923454	8.705	0.000

²¹ CA means comparative advantage industries; CD means comparative disadvantage industries.

²² Another check of the robustness of the model was undertaken. Given the Social Weather Stations' unique method of sampling that gave equal weights to the four study areas, it was conjectured that more representative results might be found if the sample was to more accurately reflect the distribution of Filipinos across the Luzon, Visayas and Mindanao. The random selection of cases was then done, basing the weights on the latest population data from the 2000 census conducted by the National Statistics Office. The model was run on the smaller data set obtained, with six hundred and sixty-five respondents. The results were largely the same.

5. Summary and Conclusions

This study contributes to the growing empirical literature that seeks out the determinants of individual trade policy preferences. It finds, based on a national identity survey undertaken in 2003, some support for the theory that people base their trade preferences on the Heckscher-Ohlin model of the international trade. In particular, years of education is negatively correlated with a pro-trade view, indicating that the skilled workers, who are the less abundant factor in the country have a significantly more protectionist stance. In addition to this economic aspect, demographics play a very significant role. Females in the Philippines are more likely to be pro-trade than are males. Those in the higher economic classes are more protectionist, as are those who are employed in the public sector. An interesting finding is that those in the rural areas are more open to trade than urban dwellers. Ideologies also have an important part to play in the determination of trade opinion. Pride in the way democracy works in the country is positively related to protectionist sentiment, and nationalism, as expected, makes a person more resistant to the breakdown of trade barriers.

It is interesting to note that many of the variables operated differently in the Philippines than they did in the findings of previous studies. This serves to highlight the differences between nations, not only in economic terms—differences in factor abundance can be cited as the explanation behind the directional change when it comes to skill or education—but also with regard to cultural backgrounds. This is important for policymakers all over the world, especially those who work jointly in international organizations, such as the World Trade Organization, to take note of.

While the variables tested proved themselves to be significant, a very important limitation of this study is the fact that it is confined to the variables included in the ISSP survey. Thus, while it is undoubtedly a good beginning in terms of understanding the determinants of individual trade policy preferences in the Philippines, it would be fruitful for future researchers to engage themselves in this same vein, by extending the analysis to include a test for the *specific factors* model, the data for which was unfortunately unavailable in this particular set.

Table A. Demographic Models

	Model #1		Model #2		Model #3		Model #4	
Method	Ordered logit		Ordered logit		Ordered logit		Ordered logit	
Variable	y = protect							
	dPr(y=5)	dPr(y=4)	dPr(y=5)	dPr(y=4)	dPr(y=5)	dPr(y=4)	dPr(y=5)	dPr(y=4)
Age	-0.0000839	-0.0001988	-0.0000469	-0.0001125	-0.0000508	-0.0001218	-0.0000595	-0.000143
	-0.72	-0.72	-0.39	-0.39	-0.42	-0.43	-0.5	-0.5
Gender	-0.0071275	-0.0168542	-0.006463	-0.0154783	-0.0063597	-0.0152395	-0.0037345	-0.0089658
	-1.94*	-2.01**	-1.79*	-1.84*	-1.75*	-1.81*	-0.99	-1
economic class	-0.0083373	-0.0197425	-0.0053736	-0.012883	-0.0043667	-0.0104746	-0.0053811	-0.0129233
	-2.68***	-2.85***	-1.79*	-1.84*	-1.38	-1.41	-1.8*	-1.85*
Religion	-0.0011912	-0.0028292	-0.0049342	-0.0119729	-0.0049052	-0.011908	-0.0048691	-0.0118336
	-0.27	-0.27	-1.19	-1.19	-1.18	-1.18	-1.18	-1.18
affiliation with the right	0.0005166	0.0012217	-0.0003185	-0.000764	-0.0005804	-0.001394	-0.0009733	-0.0023426
	0.12	0.12	-0.08	-0.08	-0.14	-0.14	-0.24	-0.23
Locale			-0.0143577	-0.0337841	-0.013524	-0.0318816	-0.0138049	-0.0325675
			-3.01***	-3.33***	-2.88***	-3.12***	-2.98***	-3.29***
Unemployment			0.0269211	0.0582715	0.0265633	0.0576037	0.0235672	0.0517466
			1.19	1.33	1.18	1.32	1.09	1.21
self-employment			-0.0001426	-0.0003418	-0.0002264	-0.0005432	0.0027505	0.006578
			-0.04	-0.04	-0.06	-0.06	0.63	0.63
public employment			0.0136553	0.0341821	0.0133515	0.0334094	0.0120938	0.0301839
			2.78***	2.89***	2.79***	2.89***	2.47**	2.52**
trade union membership			-0.0106828	-0.0245673	-0.0121362	-0.0277677	-0.0171683	-0.0385735
			-0.41	-0.43	-0.45	-0.48	-0.58	-0.62
relative family income					-0.0035735	-0.0085754		
					-0.92	-0.92		
relative personal income							-0.0080927	-0.0194627
							-1.96**	-2.02**
Pseudo-R2	0.0050	0.0050	0.0132	0.0132	0.0135	0.0135	0.0146	0.0146
No. of observations	1067	1067	1056	1056	1056	1056	1056	1056

+ The table shows the estimated marginal probabilities of being pro-trade, given an increase in the value of the relevant regressor, holding all other regressors at their mean value. The z-scores of the marginal effects are presented under each one. Asterisks pertain to significance, with * being significant at the 10% level, ** being significant at the 5% level, and *** being significant at the 1% level.

Appendix B. The Factor Endowments Models

	Model #1		Model #2		Model #3		Model #4	
Method	Ordered logit		Ordered logit		Ordered logit		Ordered logit	
Variable	y = protect							
	dPr(y=5)	dPr(y=4)	dPr(y=5)	dPr(y=4)	dPr(y=5)	dPr(y=4)	dPr(y=5)	dPr(y=4)
years of education	-0.0002874	-0.0007163	-0.0002022	-0.0005044			-0.0004002	-0.0009893
	-1.46	-1.48	-1.07	-1.08			-1.92*	-1.98**
skill345					-0.0029595	-0.0069211		
					-0.78	-0.78		
Gender	-0.0076343	-0.0189904	-0.0048849	-0.0121758	-0.0035732	-0.0082943	-0.004634	-0.011448
	-2.31**	-2.42**	-1.44	-1.47	-1.03	-1.04	-1.34	-1.36
economic class	-0.0079529	-0.0198198	-0.0053264	-0.013287	-0.0080597	-0.0187478		
	-2.84***	-3.05***	-2**	-2.07**	-2.55**	-2.74***		
Locale			-0.0127344	-0.0312332				
			-3.15***	-3.5***				
public employment			0.0109907	0.0284213			0.0113493	0.0291171
			2.58***	2.65***			2.6***	2.67***
relative personal income			-0.0065214	-0.0162884			-0.0069884	-0.0172989
			-1.9*	-1.96**			-1.98**	-2.05**
Age							-0.0001253	-0.0003096
							-1.15	-1.17
Pseudo-R2	0.0065	0.0065	0.0046	0.0046	0.0145	0.0145	0.0077	0.0077
No. of observations	1180	1180	933	933	1172	1172	1172	1172

+ The table shows the estimated marginal probabilities of being pro-trade, given an increase in the value of the relevant regressor, holding all other regressors at their mean value. The z-scores of the marginal effects are presented under each one. Asterisks pertain to significance, with * being significant at the 10% level, ** being significant at the 5% level, and *** being significant at the 1% level.

+ Dummy variables have been coded such that higher values are theoretically expected to be more pro-trade and therefore positively related to the *protect* variable.

+ Relative income measures are based on the median income as reflected in the survey results.

+ Years of education and skill345 are both proxies for skill level, the main variable being considered. Skill345 is based on occupation, coded following the ISCO-88 (1= occupations falling into ILO ISCED categories 3, 4 and 5, requiring at least 4 years of post-secondary education, 0=occupations falling into categories 1 and 2, indicating lower skill)

Appendix C. The Values and Attitudes Models

	Model #1		Model #2		Model #3		Model #4	
Method	Ordered logit		Ordered logit		Ordered logit		Ordered logit	
Variable	y = protect							
	dPr(y=5)	dPr(y=4)	dPr(y=5)	dPr(y=4)	dPr(y=5)	dPr(y=4)	dPr(y=5)	dPr(y=4)
closeness to town	0.0011238	0.0025801	0.0010546	0.0024236	-0.0001378	-0.0003202	0.0000808	0.0001851
	0.38	0.38	0.36	0.36	-0.05	-0.05	0.03	0.03
closeness to province	-0.0034892	-0.0080112	-0.0033854	-0.0077804	-0.0024411	-0.0056737	-0.0029833	-0.0068318
	-1.22	-1.23	-1.19	-1.2	-0.89	-0.9	-1.06	-1.07
closeness to continent	0.0019645	0.0045104	0.0019162	0.0044038	0.0015263	0.0035473	0.0014752	0.0033783
	0.92	0.92	0.9	0.9	0.74	0.74	0.7	0.7
national pride #1	0.00298	0.0068421	0.0028967	0.0066573	0.0012826	0.002981	0.0033359	0.0076393
	1.02	1.03	0.99	1	0.45	0.45	1.15	1.16
national pride #2	0.0081812	0.0187841	0.0080844	0.0185796	0.0075829	0.0176243	0.0078682	0.0180183
	3.23***	3.54***	3.21***	3.52***	3.14***	3.42***	3.17***	3.46***
national pride #3	-0.0003812	-0.0008753	-0.0003645	-0.0008377	0.0000743	0.0001727	-0.0009935	-0.0022751
	-0.2	-0.2	-0.19	-0.19	0.04	0.04	-0.52	-0.52
national pride #4	0.0022063	0.0050656	0.0021156	0.0048621	0.0019995	0.0046472	0.0018766	0.0042974
	1.33	1.34	1.28	1.29	1.25	1.26	1.15	1.16
national pride #5	-0.0002014	-0.0004625	0.0000503	0.0001156	0.0010205	0.0023719	0.0006595	0.0015103
	-0.1	-0.1	0.03	0.03	0.53	0.54	0.34	0.34
national pride #6	0.0008042	0.0018464	0.0007871	0.0018089	0.0003695	0.0008588	0.0005313	0.0012166
	0.44	0.44	0.43	0.44	0.21	0.21	0.3	0.3
national pride #7	-0.0028352	-0.0065097	-0.0027855	-0.0064017	-0.0021545	-0.0050074	-0.0024606	-0.0056348
	-1.78*	-1.83*	-1.75*	-1.8*	-1.42	-1.45	-1.57	-1.61
national pride #8	0.0022712	0.0052147	0.0024773	0.0056934	0.0022934	0.0053303	0.0014211	0.0032543
	0.68	0.68	0.74	0.74	0.71	0.71	0.43	0.43
pride in democracy	0.0053768	0.0123452	0.0053237	0.012235	0.0062388	0.0145003	0.0051889	0.0118826
	2.2**	2.29**	2.19**	2.27**	2.57***	2.71***	2.15**	2.23**
pride in political influence	-0.0007057	-0.0016204	-0.0006949	-0.0015971	-0.0003746	-0.0008707	-0.0006715	-0.0015378
	-0.29	-0.29	-0.29	-0.29	-0.16	-0.16	-0.28	-0.28

pride in economic achievements	-0.0024951	-0.0057288	-0.0022853	-0.0052522	-0.0018482	-0.0042956	-0.0020479	-0.0046897
	-1.07	-1.08	-0.98	-0.99	-0.83	-0.83	-0.89	-0.9
pride in SSS	-0.0018607	-0.0042723	-0.0018489	-0.0042492	-0.0014761	-0.0034308	-0.0013865	-0.0031752
	-0.76	-0.77	-0.76	-0.76	-0.63	-0.63	-0.57	-0.58
years of education			-0.0003082	-0.0007084	-0.0001776	-0.0004128	-0.0003497	-0.0008008
			-1.45	-1.47	-0.9	-0.91	-1.61	-1.64
Gender					-0.0031966	-0.0074265	-0.0028034	-0.0064178
					-0.87	-0.87	-0.74	-0.74
economic class					-0.0066994	-0.0155708		
					-2.25**	-2.34**		
Locale					-0.0143522	-0.03269		
					-3.04***	-3.36***		
public employment					0.0094514	0.0226274	0.0099016	0.0233848
					1.9*	1.9*	1.93*	1.94*
relative personal income					-0.0068344	-0.015896	-0.0074569	-0.0170885
					-1.79*	-1.84*	-1.9*	-1.96**
Age							-0.000114	-0.0002612
							-0.74	-0.94
Pseudo-R2	0.0122	0.0122	0.0130	0.0130	0.0258	0.0258	0.0178	0.0178
No. of observations	1026	1026	1026	1026	1018	1018	1018	1018

+ The table shows the estimated marginal probabilities of being pro-trade, given an increase in the value of the relevant regressor, holding all other regressors at their mean value. The z-scores of the marginal effects are presented under each one. Asterisks pertain to significance, with * being significant at the 10% level, ** being significant at the 5% level, and *** being significant at the 1% level.

+ Closeness variables are coded such that lower values indicate a greater sense of closeness. Pride is coded in a similar way. For specific definitions of each, see section 3.C

**Appendix Table D. Comparative Trade Policy Preferences Across Selected Countries
(Based on the 1995 ISSP Survey)**

<i>Country</i>	<i>TRADEPRO</i>	<i>Rank</i>	<i>TRADECON</i>	<i>Rank</i>
Netherlands	0.4	1	0.31	23
Germany	0.39	2	0.41	20
Japan	0.36	3	0.33	22
Czech Republic	0.28	6	0.54	17
Philippines	0.16	16	0.67	8
Poland	0.16	17	0.71	6
USA	0.14	19	0.69	7
Bulgaria	0.09	23	0.86	1
Note: TRADEPRO= 1 if “protect” variable = 4 or 5; 0 if equal to 1,2, or 3. TRADECON = 1 if “protect” variable =1 or 2; 0 if equal to 3,4, or 5. Values above are country averages.				

Source: Mayda and Rodrik (2001)

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