Economic and Cultural Sources of Preferences for Globalization in Egypt

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Abstract

What factors shape attitudes toward economic globalization? Theories in international and comparative political economy emphasize the importance of economic variables, like factor endowments, as determining preferences toward international trade. Other literature emphasizes the importance of non-economic factors, including nationalism and cultural values, like tolerance, that might explain citizens' predispositions toward globalization. This paper attempts to adjudicate between these two competing arguments by focusing on the factors correlated with public support for increasing trade in Egypt. On the one hand, Egypt might benefit from economic globalization. On the other, it has a rich and deep socio-political history of Western colonialism, political Islam, and radicalism. This history might serve as the lens through which the potential benefits of globalization are assessed. In this paper, we investigate these questions, using data from the Pew Global Attitudes 2010 survey of Egyptians. We find that both economic and cultural factors matter, but that cultural ones may be even more influential in this particular developing country setting.

1. Introduction

What factors influence citizen' support for and opposition to globalization? This question has engendered a large literature, most of which focuses on the rich, developed countries of the West. But as globalization has spread and developing countries have joined the world market, it has become more important to understand the sources of support for and opposition to globalization in these countries as well. Here we undertake to explore the economic, political and cultural correlates of citizens' attitudes toward globalization in a large developing country, Egypt.

Much of the recent political unrest in developing countries, including Egypt, has been associated with poor economic circumstances. High unemployment, especially among the young, rising inequality, and underprovision of public services have helped drive public discontent in numerous developing countries, even as growth rates remain strong. Unemployment for the entire group of Arab countries in 2008 was at about 15%, with combined unemployment and underemployment as high as 20–25 percent. First-time job seekers have the worst of it, and about 80 percent of the unemployed in Egypt are in this position. Since 1980, real wages for almost all occupations have declined in Egypt. Exacerbating this bleak economic predicament, the Arab world's share of world trade has declined from 38 percent in the 1980s to 3 percent in the early 2000's.[1] In inflation-adjusted dollars, as of 2002 not a single Arab country had maintained the income level it had in 1982. Further, the previous decade (2000-2010) witnessed close to a 25 percent increase in population with economic growth rates at a meager 3 percent. Egypt and many of the other MENA countries have experienced economic distress and public protests despite substantial growth.

The MENA countries are some of the least globalized in the world (Noland and Pack 2007, Richards and Waterbury, 2008). But many economic analysts and governments believe that the route to greater economic prosperity lies in further globalization. Noland and Pack (2007: 3) in their influential study of the MENA region, for instance, note that "it is almost impossible to imagine sustained generation of needed employment opportunities without successful globalization." Yet it is unclear if there is enough political support for globalization in these countries. Resistance to globalization has long been a powerful force in these countries. Citizens across the Arab world realize that global economic integration can plausibly improve their economies. Yet, they remain skeptical of foreign—especially Western—influence and penetration. Years of colonialism, US hegemony, the ongoing Arab-Israeli conflict, the War on Terror, and the doctrine of political Islam, which juxtaposes Islamic/Arab nationalism against Western domination, all loom large in the mindsets of citizens in this region. Given this history and the economic case for greater economic integration, do citizens in the MENA region support increasing levels of globalization? What factors affect their views on globalization? How important are economic factors relative to political and cultural ones? We turn to public opinion surveys of Egypt to answer these questions in more detail.

This paper joins the debate over the sources of preferences for international economic policies. Identifying the preferences of the agents is considered a critical first step in understanding how policy choices are made by governments (Rodrik 1995; Frieden and Rogowski 1996; Milner 1997, Moravcsik

[1] Noland and Pack (2007)

1997; Lake 2009). This debate about policy preferences involves two competing arguments about the factors that matter most for preferences about globalizations. Economic factors are usually contrasted with more cultural or sociological influences, as we detail below. The economic sources of preferences derive from theories of international economics, which detail how individuals in different economic positions are affected materially by different policy choices. These theories tend to focus on the income effects of different policies via their labor market impacts. The ways in which trade policies affect wages, employment opportunities, and consumption are the main conduits for how individuals experience globalization in these models. They assume that individuals' preferences for trade policies are determined by how trade (or foreign investment or aid) affects their income and overall material welfare. Rationally, individuals that gain materially from globalization should support it and those that lose should opposite it. The distributional consequences of policies then shape political preferences of individuals in these models.

Within this tradition, differences exist between those who believe that factor endowments and high mobility drive income effects of trade, following the Stolper-Samuelson theorem, and those who focus more on the sectoral position of individuals and low mobility of factors especially labor across sectors, as the Ricardo-Viner models of trade suggest (Rogowski 1987; Hiscox 2002; Beaulieu 2002; Dutt and Mitra 2005, 2006; Scheve and Slaughter 2001a, 2001b; Magee, Brock and Young 1989; Mayda and Rodrik 2005). Baker (2005) has added to this economic framework by focusing attention on how trade affects the consumption possibilities of individuals and how this may influence their trade preferences. Previous empirical research on trade policies then has examined these theoretical predictions by exploring the positions taken by political representatives, individuals in survey responses, and votes on trade policies directly (Rogowski 1987; Milner 1988; Hiscox 2002; Beaulieu 2002; Dutt and Mitra 2005, 2006; Scheve and Slaughter 2001a, 2001b, 2004); Magee, Brock and Young 1989; Mayda and Rodrik 2005; Fordham and McKeown 2003; Milner and Tingley 2011; Hanson, Scheve and Slaughter 2007; Milner and Kubota 2005; O'Rourke and Sinnott 2001) This literature has often focused on the different predictions of factoral and sectoral models. It has tended to come down in support of factoral ones (i.e., Stolper-Samuelson ones), but it has also shown that these differences can be accommodated by variations in factor mobility.

Much of this literature has focused on the developed countries. In that context of capital-abundant countries, the Stolper-Samuelson theorem predicts that individuals endowed with more capital and human capital will support globalization and those that are better endowed with unskilled labor will oppose it (e.g., Scheve and Slaughter 2001a; O'Rourke and Sinnott 2001; Mayda and Rodrik 2005). Substantial support for this claim has been provided. For the developing countries there has been much less research. The hypothesis from Stolper-Samuelson models tends to be that unskilled labor should gain the most from opening to the world economy, while skilled labor and capital holders should lose. One would thus expect unskilled labor in these countries to be the mainstay of support for globalization. Some support for this conjecture has been found (O'Rourke and Sinnott 2001; Mayda and Rodrik 2005; Milner and Kubota 2005; Dutt and Mitra 2006). But other studies have cast some doubt on this finding. First, some studies show that inequality has worsened rather than improved in the developing world among countries that have opened up to trade (Goldberg and Pavcnik 2007). Others

show that workers' wages and bargaining power have declined as well (Dutt, Mitra and Ranjan 2009). And some show that it is high skill labor and those well-endowed with capital who are the most supportive of globalization in the developing world (Baker 2005; Hicks, Milner and Tingley, forthcoming 2014). It is still an open question whether developing countries fit into the Stolper-Samuelson framework. We use the specific case of Egypt to explore this question further.

A new element in the exploration of preferences over globalization has been the increasing attention to non-economic factors, largely cultural and sociological ones. Scholars of IPE have recently questioned how important the economic factors cited in the earlier literature in IPE/CPE are and have looked at a series of non-economic variables (Mansfield & Mutz 2009, Hainmuller & Hiscox 2006, Lü, Scheve, Slaughter 2010, Citrin et al 1997, Margalit 2012, Blonigen 2011). These studies of public opinion often show that other influences which are more sociological and cultural in nature are important as well. These non-economic factors take a wide range of values. Oftentimes they include concerns about inequality, insecurity, nationalism, xenophobia, cosmopolitanism, and isolationism. Sorting out these different non-economic factors is an important step. In the MENA context other cultural factors relating to religion and political Islam are also likely to play a role. We explore these in more detail below.

In addition to the non-economic factors, this literature has had trouble sorting out the causal impact of these attitudes on preferences (Fordham and Kleinberg 2012; Margalit 2012). Claims about economic models that rely on education as a proxy for skill are subject to concerns that education measures other non-economic influences, such as tolerance or cosmopolitanism (Hainmueller and Hiscox 2006). On the other hand, claims that non-economic factors structure attitudes has been challenged by those who argue that these non-economic influences are related to or derive from one's economic position (Fordham and Kleinberg 2012). Are economic factors causal in the sense that the Stolper-Samuelson theorem posits? Do non-economic factors play as important or more important a role in structuring preferences about globalization? Do these attitudes cause preferences toward trade policy? Are they merely correlated with those preferences? Are there intervening variables, like economic factors, that generate both sets of attitudes? By examining some of these dynamics in Egypt, we hope to contribute to these debates.

Here we look at how economic factors, proxied by income and education, correlate with preferences toward globalization. And we then introduce a series of cultural attitudes that we seek to show are also related to globalization preferences. We try to separate out these influences to demonstrate which ones have more important impacts. And we try to build a stronger deductive theory as to why these particular attitudes are more salient for globalization. We see our contribution as examining the sources of preferences for globalization in the MENA region by focusing on Egypt. Further, we contribute to the overall debate by isolating the theoretical and empirical roots of non-economic sources of support and opposition to globalization in this environment. These reflections can then help us build stronger theory in IPE/CPE.

In this paper we show that both economic and non-economic factors shape attitudes toward globalization. We find support for Stolper-Samuelson models since less skilled workers tend to be more supportive of trade. We also find support for cultural factors like attitudes toward gender equality,

toward the US, and toward radical Islam. Even when exploring whether cultural factors mediate economic ones, we find support for both sets of influences. Indeed, our models suggest that some cultural factors are more powerful in structuring support for globalization than the economic factors. Our results are tentative, of course. We are using survey data from one country in one year. Causality is impossible to establish in this context, and the generality of these results is less than certain. But our research points to some new and important influences on the politics of globalization.

Why Egypt?

Egypt is an important case because it is one of the largest developing countries and is located in an important region where geopolitical forces play a major role. It has broader ramifications since it tells us about factors that structure preferences among developing countries more generally toward globalization. And it shows that these factors may be very different than in the developed world. Simply taking our knowledge from the advanced industrial countries of the West about the politics of globalization may be inadequate if not wrong for understanding the developing world. The future of globalization may depend even more heavily on how these forces evolve in the developing countries, which constitute an increasing percent of the global economy. The evidence here on Egypt suggests that non-economic forces will have a major influence on how globalization develops and spreads. And it suggests that cultural attitudes may constitute a major source of opposition to globalization in developing countries.

Egypt is a fairly typical developing country. It is classified as a lower middle income one, with a GDP per capita of about $3000.[2] Its population structure, weighted heavily toward the young, is similar to many other developing countries. Egypt is the largest Arab country in the MENA region with a population close to 85 million people. Egypt also has the largest economy in the region after Saudi Arabia and UAE, oil-rich states. Egypt is comparatively much less open in terms of trade than the average Lower Middle Income Country.[3] Income-wise, Egypt is slightly richer than the average LMI country. Unemployment data isn't available for all the years, but Egypt's overall unemployment rate has been close to double the amount of the average LMI country. In terms of income inequality, the average lower middle income country seems to be more unequal than Egypt, but recent data weren't available. Egypt is also perceived to be slightly less corrupt, and less dependent on ODA than the average LMI country. Finally, using data from the KOF Index for 2013,[4] Egypt's overall level of globalization, which includes more than just economic factors, is somewhat higher than the average LMI country. Although with its own specificities, Egypt is roughly comparable to many other developing nations, like Morocco, Bangladesh and Sri Lanka.[5]

[2] These values are based on data from the World Bank's World Development Indicators, 2013.
[3] These countries make up the current list of LMICs: Armenia, Bhutan, Bolivia, Cameroon, Cape Verde, Congo Rep., Ivory Coast, Djibouti, Egypt, El Salvador, Georgia, Ghana, Guatemala, Guyana, Honduras, India, Indonesia, Kiribati, Kosovo, Lao, Lesotho, Mauritania, Micronesia, Moldova, Mongolia, Morocco, Nicaragua, Nigeria, Pakistan, Papua New Guinea, Paraguay, Philippines, Samoa, Sao Tome, Senegal, Solomon Islands, Sri Lanka, Sudan, Swaziland, Syria, East Timor, Ukraine, Uzbekistan, Vanuatu, Vietnam, West Bank/Gaza, Yemen, and Zambia.
[4] Dreher 2006, updated in Dreher, Gaston and Martens 2008. This version March 1, 2013.
[5] Morocco has a smaller economy; and Bangladesh is poorer.

Egypt, like many MENA countries, has not been as highly integrated into the world economy as many other fast-growing developing countries. Its trade dependence (exports plus imports to GDP) has fluctuated around 55% since the early 1980s (World Bank 2013). It has run chronic current account deficits for decades due to its need to import oil and foodstuffs. Interestingly it also exports oil and petroleum products as one of its main items. Its major trading partners are the US, EU (Germany and Italy mainly), China, India, Russia and Saudi Arabia (United Nations 2013). This pattern suggests competition at both the high and low end of the labor market. It has lowered trade barriers several times since the 1980s and has signed a wide variety of trade agreements, both within the MENA region and with countries outside it (Arab Republic of Egypt 2013). Egypt's total exports in goods and services went from less than US$10 billion in 1990 to over US$50 billion in 2008. Similarly, imports in goods and services increased from less than US$18 billion in 1990 to over US$60 billion in 2010 (World Bank 2013). But these reforms and agreements have not changed its pattern of trade flows much, nor have they led to greatly increased trade dependence over time, in part because of substantial economic growth at home.

In terms of FDI, another component of globalization, Egypt has seen fluctuations around a low average. In 2000, Egypt was the recipient of 40 percent of all FDI flows to the MENA developing countries (Johansson de Silva and Silva-Jauregui 2004, p. 25). Egypt's FDI as a percentage of GDP between 1980 and 2011 has hovered around 2%. Despite a decrease in FDI inflows in the late 1990s and early 2000s, Egypt experienced a significant spike in FDI inflows between 2003 and 2008, and a very sharp decrease after 2008. FDI inflows reached over US$10 billion (in constant 2005 US$) in 2008 and collapsed to almost zero in 2011 (World Bank 2013). Before 2008, the increase in FDI inflows was due to an improved business climate, as well as liberalization and privatization reforms (World Bank 2008). Like the rest of the MENA region, however, FDI has been less plentiful in Egypt than in other developing regions like Asia and Latin America.

Foreign assistance is another way to promote Egypt’s integration into the global economy. Aid often was tied to reforms that pushed the government to privatize and allowed market forces to operate more widely in the economy, to liberalize trade, and promote FDI. Future IMF loans and the World Bank and bilateral aid that would be tied to this are all likely to include such conditionality. While aid accounted for more than 5% of GDP in the 1980s, it jumped much higher in the 1990s, but since 2000 has fallen to close to 1% of GDP (World Bank 2013). Although foreign aid has been declining, debates about the recent IMF loan (2012) demonstrate the importance of aid for Egypt’s future growth. Foreign aid has been a critical element of the globalization and privatization process in Egypt, as in many other developing countries.

Finally, remittances are another aspect of globalization. They have been an important source of revenue for Egypt and were on the rise until the Arab Spring protests. By 2010, remittances constituted

nearly 5% of Egypt's GDP (World Bank 2013). In 2012 there was a reported $19 billion in remittances, an increase of $ 4 billion from the previous year.[6]

Since 2000, Egypt has adopted a series of structural reforms moving it towards a more market-oriented economy. And although the decade of 2000's witnessed impressive growth rates of 5 percent and more, levels of poverty still hovered at around 40 percent of the population. The youth protests of the Arab Spring highlighted the dismal state of economy. The uprising, which led to President Mubarak's fall, has ushered in a period of even worse economic woes. Egypt's foreign reserves fell to $14.9 billion in June 2013 from $36 billion in December of 2010.[7] GDP growth in 2011 was at 6 percent and fell to 2 percent in 2013. The budget deficit more than doubled from $110 billion to $230 billion in the same period. Levels of unemployment continued to skyrocket from 9 percent to over 13 percent. Furthermore, tourism, foreign direct investment, and the Egyptian currency have all declined precipitously.[8] Since the uprisings, Egypt's economy has fallen into a deep crisis. The question now is how to move forward, and whether to adopt a more market-oriented and liberal strategy relying on global economy.

One suggested way to resolve Egypt's ongoing economic crisis is for the country to move towards greater globalization. However, increasing trade, aid and/or FDI will require any Egyptian government to implement important reforms to attract additional revenue. These challenges became apparent when the Mursi government began negotiations with the IMF for a $4.8 billion loan. While the IMF insisted that Mursi put forth a credible economic reform plan that included replacing subsidies with targeted social spending, boosting tax revenues, and improving the investment environment for the country, Mursi hesitated and slowed the reform process. He worried that he would alienate key sectors of his constituency. Fearful of domestic reactions, Mursi chose not to adopt the reforms and hence was unable to agree to a deal with the IMF. The government and the IMF hoped a broad consensus of ordinary Egyptians could be constructed to support these economic reforms. But such hopes were not realized. [9]

In addition to the challenges that confronted Mursi, there remain other points of contestation that are unique to Egypt, when compared to other developing countries outside the Middle East. For over two decades now, the literature on Middle East politics has looked at the socio-political influences of Islam in shaping political developments, from democracy to women's rights for example, across the

[6] "Egypt expat Remittances Reach US$19 bn in 2012" *Egypt Independent.* Jan 1, 2013. http://www.egyptindependent.com/news/egyptian-expat-remittances-reach-us19-bn-2012

[7] "Egypt's Foreign Reserves Reach around $20 bn in Arab aid." July 18, 2013. *AhramOnline.* http://english.ahram.org.eg/NewsContent/3/12/76823/Business/Economy/Egypts-foreign-reserves-reach-around--bn-in-Arab-a.aspx

[8] "Beyond the Coup: Egypt's Real Problem is its Economy." *The Atlantic.* July 10, 2013. http://www.theatlantic.com/international/archive/2013/07/beyond-the-coup-egypts-real-problem-is-its-economy/277676/

[9] "Egypt's Economic Crisis: How to Help Cairo Help Itself" *The Washington Institute.* March 25, 2013.http://www.washingtoninstitute.org/policy-analysis/view/egypts-economic-crisis-how-to-help-cairo-help-itself

region (Lewis 2003, Huntington 1993, Inglehart and Norris, 2003, Fish 2001). These authors argued that the culture of Islam led societies to be less democratic, less tolerant and more inegalitarian toward women. In most of these studies Islam was operationalized at the country-level, as a dummy variable; or at the micro-level as an index of religiosity. Yet, neither of these constructs serves as good proxy for the ways in which "Islam" might influence certain sets of preferences or political outcomes—especially those linked to support for democracy, egalitarianism, and tolerance. There are several different ways in which "Islam" might matter for preferences linked to globalization. Disaggregating the concept of "Islam" is crucial, if one is to gain analytic insight into what features of "Islam" matter most on these outcomes. Islam has many dimensions. It is a political doctrine—that manifests itself as political Islam. Movements, like the Muslim Brotherhood, derive their foundations from the teachings of Islam. It is also a religion, and many who embrace and observe the faith do not support its political doctrine. Furthermore, radical Islamists use "Islam" to justify their dedication to armed struggle and terrorism. Islam also has a legal doctrine to shape the ways in which laws are designed within polities. And finally, Muslim countries possess certain political cultures that are a result of the fusion of Islamic culture with pre-Islamic patriarchal and traditional cultures. These traditional and conservative cultures are yet different dimensions of what may constitute "Islamic" influence. Below we disaggregate Islam into these respective categories.[10] In their entirety, they constitute "Islam." Yet, unpacking the concept into the following categories, such as Islam in Politics, Religiosity, Modernity, and Radicalism, will allow us greater analytical leverage. We develop these concepts below.[11]

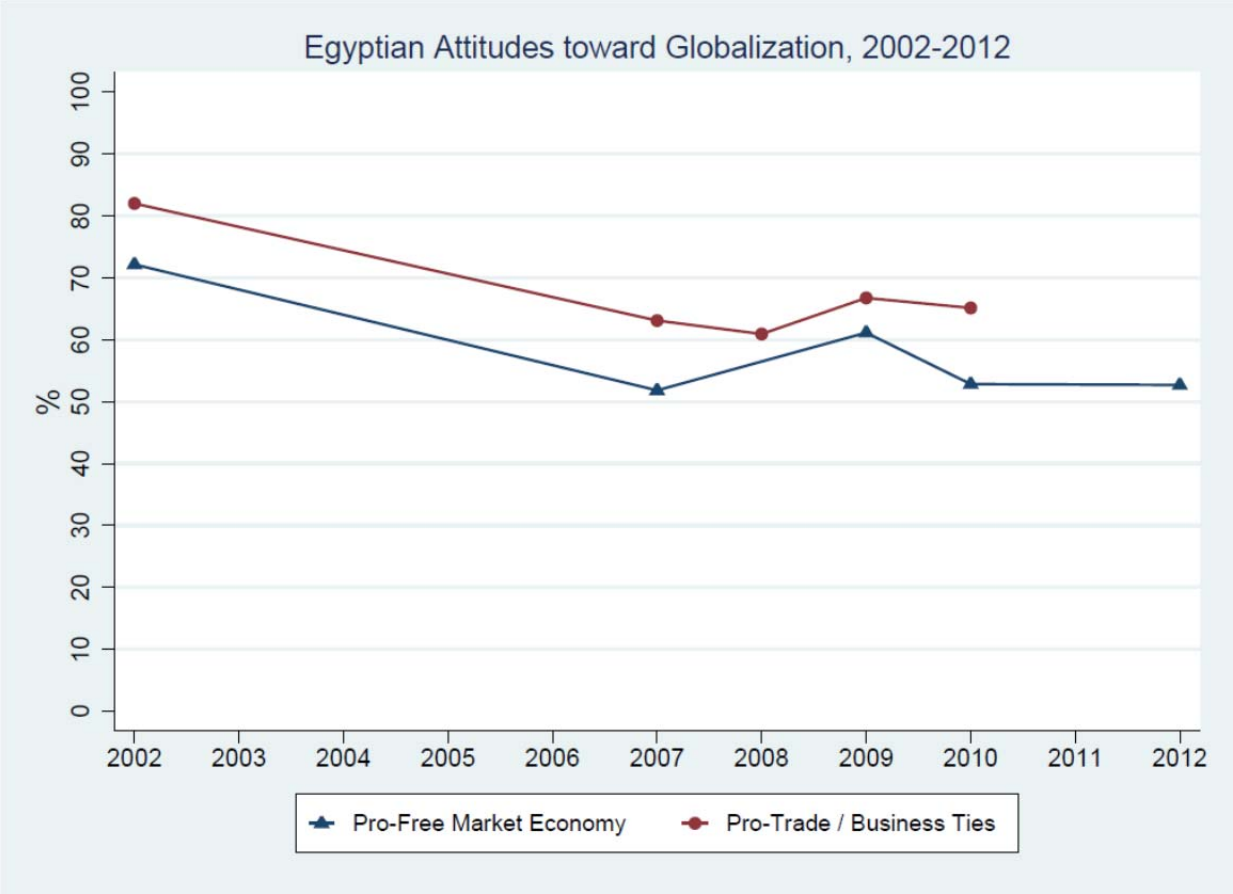
2. Egyptian Attitudes toward Globalization: Hypotheses, Data and Tests

Given the need for greater citizen support for Egypt's reform process and the fact that any government in Egypt will require support from its citizens for purposes of legitimacy, it is imperative to understand the factors that structure Egyptian attitudes toward globalization. To do this, we examine surveys conducted by the Pew Research Center. Other surveys used in the past either do not provide questions about globalization or about Egypt (for instance, ISSP and WVS). Examining data from the Pew Global Attitudes surveys from 2002-2012, we find that Egyptians in general are very supportive of trade and free markets. When asked whether "most people are better off in a free market economy, even though some people are rich and some are poor," the majority of Egyptians agrees with this statement. This question taps into support for trade liberalization since it is an important element of a free market economy, but it also measures attitudes toward government intervention in the economy. When asked whether they think growing trade and business ties between Egypt and other countries are good thing or a bad thing for Egypt, the majority also thinks increasing trade is good (See Figure 3). This question is our central dependent variable below. It taps into attitudes toward trade and globalization. In fact, clear majorities across each year profess their conviction that trade and free markets are good or very good

[10] See Amaney Jamal, Tarek Masoud and Elizabeth Nugent. "Who Votes Islamist?" Working paper, 2013.
[11] See Correlation Matrix in Appendix. These concepts do not correlate heavily with one another.

for the economy. The public seems to support globalization, and it supports increasing trade ties even more than free markets.

Figure 3: Support for Trade and Free Markets



Yet, juxtaposed to this support for globalization is deep skepticism about foreign intervention in Egypt. Very negative attitudes exist toward US involvement in Egypt, for example. Levels of anti-Americanism remain high (Jamal 2012, Lynch 2006, Keohane and Katzenstein 2007, Chiozza 2009; Blaydes and Linzer 2012). These levels of distrust toward the US are exemplified by responses to the following question: "Overall, would you say US economic aid to Egypt is having a mostly positive impact, mostly negative impact, or no impact on the way things are going in Egypt"[12]? We find that a significant majority of 60% say that the effect of US economic aid is negative on the country. Moreover, in Egypt the Pew data (2012) also reveal that close to 85% of the population say that they want to protect their country against foreign influences. Yet, it is not clear whether globalization is seen as yet another form of "foreign" penetration. These current tensions between a desire for increasing levels of trade and distrust of the US and foreign intervention raise several questions about Egypt's future pathway toward

[12] This is question EGY1 from the Pew Research Center's Global Attitudes Project questionnaire of 2012.

globalization. Will distrust in the US shape levels of support for globalization? Will other cultural and national factors matter, like support for radical Islam and/or Islamic laws and principals? Or could it be that these factors don't matter, and the only dynamics that matter are those linked to economic standing?

Another important dimension in the Egypt case is the ways in which Islam as a religion shapes preferences for globalization. Many studies assume that Islam and globalization are in opposition; indeed that Islam derives much appeal today from its role as an ideology that opposes modernization and globalization (e..g, Huntington 1993; Önis 1997; Keyder 1997). Hadiz and Robison (2012) have a more political story about Islamist movements and their opposition to globalization. "Increasingly repressive forms of state power and growing social inequalities in the post-oil boom period of structural readjustment across the Muslim world gave rise to widespread social opposition that took an Islamic form… That it was political Islam, rather than the Left, that has been able to cultivate cross-class alliances most successfully was largely due to the lingering legacies of Cold War-era social conflicts." (145). Yet, Islam is a vast category that encompasses multiple dimensions. We break down Islam into three components below: support for radical Islam, support for Islam in politics, and religiosity to better assess the ways in which Islam might hinder support for globalization.

Finally, an important set of factors to take into account is the role of gender and attitudes toward gender quality. In the IPE literature there is a systematic but unexplained finding that women in OECD countries tend be more protectionist (e.g., Burgoon and Hiscox 2008). These studies suggest that this might be a function of women's position in the labor force, or differences in education and beliefs, but no real consensus exists on the cause. The second dimension we take up is orientations toward gender equality. Attitudes toward gender equality tap into predispositions toward tolerance. (Inglehart and Norris 2003; Diamond 1996). Several studies have found that citizens who have intolerant attitudes toward women are also more likely to hold ethnocentric views and fear "foreign" penetration.[13] In fact, tolerance appears to be important for greater economic globalization in Western countries as well. For example, studies show that communities that have higher levels of acceptance toward homosexuals and foreigners also tend to be more technologically advanced. They are more open to creative thinking and have lower barriers to entry—factors important for creativity and ingenuity—which helps levels of globalization.[14] Based on existing theoretical models and the empirical findings outlined above, we advance the following hypotheses about these non-economic sources of preferences.

Hypotheses

1. Economic Position and Support for Globalization:

Economic models of trade have provided a central set of hypotheses for arguments about the structure of preferences for globalization (Rogowski 1989; Milner 1988, 2013; Frieden and Rogowski 1996). As noted above, Stolper-Samuelson model would generally predict that increases in trade in a

[13] See: Schlueter et al. 2008; Kinder and Kam. 2009; LeVine and Campbell 1971.
[14] See: Florida 2002; Glaeser 2005; Noland and Pack 2007.

capital-poor, labor abundant country like Egypt should result in gains for the abundant factor, unskilled labor, and losses for the scarce factor, capital and those high in human capital. Many empirical investigations of this assume that human capital can be proxied by levels of education or income.[15] Those with more education have a greater skill set and can take jobs that require higher skill levels. Those with higher income are assumed to be in jobs that pay higher wages since they are higher skilled ones. We are unable to test other theories of the distributional effects of trade and globalization here because we don't have sufficient data. Ricardo-Viner theories require information about what sector the respondent works in: export, import-competing or non-traded. Models that try to reconcile Stolper-Samuelson and Ricardo-Viner theories looking at factor mobility are also beyond our range since we do not have information on mobility or wage dispersion. Hence we focus our analysis on the most prominent of the main economic theories of preferences: Stolper-Samuelson. Income and education should be negatively related to support for globalization in this model.

Hypothesis 1: The greater an individual's level of income or education, the less likely they are to support globalization.

2. Anti-Americanism and Support for Globalization

A new strand in the IPE literature has begun to look at non-economic factors that may shape levels of support for globalization. Mansfield and Mutz (2009), for example, find that nationalism and ethnocentrism are both important determinants of these preferences. Globalization is often associated with Western and particularly American intervention, and hence dislike of this intervention may be associated with views toward globalization. Jamal (2012), working on the Middle East, finds that levels of anti-Americanism are directly linked to preferences toward democracy, which is seen as another export from the West. In fact, there's a voluminous literature on pan-Arab nationalism underscoring the ways in which anti-American (and anti-Western) sentiment drive support for nationalist projects, like Nasserism and pan-Arabism. These Arab ideologies emphatically denounce US interference in the region and call for greater political and economic autonomy for Arab states (Ayoubi 1995; Dawisha 2005). A long standing national argument in Arab countries is that the West has held the region back and prevented it from economic development and political freedom. For example, among the overwhelming majorities of Arabs who believe that their nations should be more prosperous, most identified Western politics as the primary impediment (including 59 percent of Egyptians and 66 percent of Jordanians).[16] Thus, based on the long history of Arab nationalism and a strong current of anti-Americanism (82% have

[15] Our proxy indicators for economic position are family income and education. Many other studies have used these indicators as proxy as well (Scheve and Slaughter 2001a; O'Rourke and Sinnott 2001; Mayda and Rodrik 2005; Mansfield and Mutz 2009). They have obvious problems. As Hainmueller and Hiscox (2006) have shown, education can proxy for a number of different theories. It may tell one about cosmopolitan values and/or knowledge of standard economics, rather than about skill levels. These indicators do not allow us to test the more sector-specific hypotheses informing the RV theories. However, using these indicators will allow us to isolate these economic factors from other competing arguments grounded in political nationalism and cultural conservatism. Therefore, although less than ideal, these indicators do allow us to make some important assessments.

[16] Pew Global Attitudes 2006 as cited in Noland and Pack (2007, 196).

unfavorable views of the US in Egypt), we expect that those who are more anti-American to be more likely to oppose trade.

Hypothesis 2: The greater an individual's level of anti-Americanism, the less likely they are to support globalization.

3. Radical Islam and Support for Globalization:

Like Arab Nationalism, radical Islam also espouses a coherent doctrine that is anti-American and anti-Western intervention. Since the inception of the Muslim Brotherhood by Egypt's Hasan al-Banna in 1928, Islamist movements have directly challenged Western Imperialism in the Arab world (Haddad 2007; Schwedler 2007; Roy 2006, Wickham 2005, Masoud 2009, Blaydes 2011, Jamal 2012). Movements like Hamas, Hezballah, and al-Qaeda all have very strong anti-US programs. More radical movements adopted this strong anti-Western, anti-American stance as exemplified in their party rhetoric and propaganda materials. (Shapiro and Fair 2010, Bloom 2007). More moderate movements, however, have not exhibited this pattern. In fact, many moderate Islamic movements remain quite favorable toward globalization. Atasoy (2003) claims that in Turkey at least Islamists are divided, with some groups clearly favoring globalization and trade.[17] Grigoriadis & Kamaras (2008) also argue that the main Islamic party in Turkey, AKP, and its associated business groups have been substantial supporters of globalization through FDI. Hence while the relationship between support for Islamic groups and globalization remains one that is contested, we anticipate that citizens who support radical movements, like Hamas and Hezballah, will be less likely to support globalization.

Hypothesis 3: The greater an individual's level support for radical Islam, the less likely they are to support globalization.

4. Islam in Politics and Support for Globalization

Muslim societies are also divided by debate over the role of religion in political and social life. (Ayoubi 1995, Esposito 1998,). How important should Islam be in politics, economics, and social life? A look at current developments across the Middle East illustrates the extent of this secular/religious divide. There are many citizens who would like to see Islam play a much more prominent role in societies. But there are also secular proponents who would like to see Islam play a less important role. Secularists believe that resorting to a more "Islamized" system of government would engender a backward trajectory of development that is incompatible with greater globalization. They worry that Islamic law is too rigid and that it privileges the community over the individual, thus not allowing the individual to prosper in creative and original ways important for globalization (Huntington 1993). Another strand of this argument holds that those who espouse a strong commitment to Islam in politics are also those more worried that globalization might introduce anti-Islamic practices like interest-based

[17] She says: "Some Islamists, especially those organized within the pro-Islamic political party, focus on the protection of small capital groups and labour from the negative effects of market competition. But the strategies of the newly rich Islamist groups are directed at participation in the global economy. These Islamists formulate a cultural disposition of openness to the world on the basis of an Islamic morality through which Islamic culture serves the goals of international economic competitiveness"(158).

economic exchanges and a tourist industry that relies on alcohol to attract foreigners. These practices are offensive to those who want to uphold an Islamic system of governance.

Hypothesis 4: The greater an individual's level support for Islam in politics, the less likely they are to support globalization.

5. Religiosity and Support for Globalization

Studies show that religion—both overall religiosity and different religions themselves—matter for public policy preferences. Individuals' attitudes toward various public policies are affected by their religious beliefs. There is evidence, for instance, that in the West Protestants are less favorable toward government redistribution and intervention in the market than are Catholics or Jews (Alesina and Guiliano 2011; Basten and Betz 2013; Eugster et al 2011). There is also evidence that overall religiosity affects support for government redistribution and intervention in the market. Scheve and Slaughter (2001a, 2006) show that the more religious a person is, the less they favor social welfare and the less they approve of government redistribution and intervention in the market. There exists a strong negative correlation at the individual level between religiosity, proxied by frequency of church attendance, and preferences for increased social insurance spending. They claim that this effect is not due to the fact that they receive more charity and/or more gratification from their churches. But rather the reason lies in their beliefs about how to cope with life's challenges.[18] Religious individuals will express less of a demand for social insurance because their religious engagement offers personal psychic benefits that partially substitute for social insurance. This finding exists in studies of the role of religiosity in Muslim countries. Elie Kedourie (1992) argues for example, that citizens are less likely to be active agents of change, because they believe the status quo is simply a function of divine destiny.

In terms of globalization and trade as it relates to religion, the literature is less developed. But Hays et al (2005) show that religiosity negatively affects support for trade among individuals in a sample of the advanced industrial countries. Our focus is on the developing world and Egypt, an Islamic nation in particular. Islam is dominant among Egyptians, accounting for close to 90% of the population; and religiosity is very high in the country (85% in our sample pray at least once a day). Hence the question is whether religiosity structures attitudes toward trade and globalization.

Hypothesis 5: The greater an individual's religiosity, the less likely they are to support globalization.

[18] Huber and Stanig (2011) have a different argument about religion but one with the same relationship to social welfare and government intervention in the economy. Religion thus seems to matter for policy preferences, even if we are not sure exactly how and why.

6. Gender and Support for Globalization

Numerous studies have shown that gender matters for how citizens form their trade policy preferences. Studies of attitudes toward trade repeatedly show that women are more protectionist than men; and that men are more favorable toward international trade than are women (Holsti 1996, 173; O'Rourke and Sinnott 2001, 180; Mayda and Rodrik 2005, 1404; Scheve and Slaughter 2001a, 287; Baker 2005; Hays, Ehrlich, and Peinhardt 2005; Burgoon and Hiscox 2008; Mansfield and Mutz 2009: 444). The reasons for this gender gap are not well developed. These studies have rarely focused on the gender effect, although some do try to investigate various causal pathways by which it could matter. One theory is that women participate less in the job market and hence do not see the benefits of trade as much as men. Another theory is that women are more likely to work in the import-competing sectors in rich countries and hence are more opposed to trade. Several of the studies show that it is not differences in labor market participation or sectoral employment that accounts for this. Burgoon and Hiscox (2008) have the most well developed explanation for this. They argue that college-educated men are more likely than college-educated women to be exposed to mainstream economic arguments about the gains from trade. The gender gap in trade policy attitudes thus stems from the fact that pro-trade ideas reach more men than women through their college courses. Mansfield and Mutz (2009), however, find little support for this idea. So the reasons why we find this persistent gender gap in trade are not obvious.

Most of these studies also focus on the advanced industrial countries and especially the US. Only one or two of them include developing countries. So the overwhelming evidence is that in rich, Western countries women are markedly less favorable to free trade and more sympathetic to trade barriers, and hence less supportive of globalization in general. Does this hold in the non-Western, developing world? It may be less likely to do so because trade may have different consequences there. Greater trade openness may lead to gains in wages and employment for sectors that are more likely to employ women, such as textiles, footwear and apparel. Indeed there is some evidence from developing countries that women gain more from increased trade than do men (Aguayo-Tellez 2011; Aguayo-Tellez et al. 2010; Juhn et al. 2012, 2013). If this is the case and if women form preferences on the basis of their rational economic interests, then women in the developing world may be more favorable toward trade than men. On the other hand, non-economic factors may predispose them to support trade and globalization more than men in the developing world. Women may hold less traditional views about gender equality and be more tolerant of differences. Here we cannot sort out the reasons for this gender effect.

Hypothesis 6: Women are more likely to favor trade than men.

7. Gender Equality and Cultural Traditionalism and Modernism

Attitudes toward gender equality are very unsupportive in the Arab world. Citizens of the Arab world hold some of the most inegalitarian attitudes toward women in the world, as Figure 5 depicts below. Arab societies are more likely to believe that men make better political leaders; that university education is better for a boy than for a girl; and when jobs are scarce, men should be entitled to the jobs

that do exist. In our survey, 40% oppose women working outside the home; 32% do not believe women should have equal rights with men; and 78% think that men should have priority over women in the workforce. These attitudes may color views toward globalization as well. Citizens may be worried that globalization will lead to the transmission of ideas that may undermine the existing socio-cultural environment that favors a patriarchal order. These attitudes toward gender roles are shaped by intolerance (Fish 2002, Inglehart and Norris 2003, Jamal and Langohr 2008). And these high levels of intolerance do not bode well for globalization (Diamond 1996, Huntington 1993). In fact, in many Arab countries, clinging to very conservative, intolerant attitudes toward women is seen as a response to the rapid changes linked to modernization. With rapid change, citizens hold more strongly to status quo beliefs and values, especially on gender roles (Mahmoud 2005, Deeb 2006, Ali 2000, Jamal and Nooruddin 2012). If globalization and trade not only bring in foreign values but also promote rapid changes in society, they may be most feared by those with the most traditional values. So we look at attitudes toward women's rights and assess whether they influence levels of support for globalization. Our hypothesis stipulates that those citizens with more traditional orientations against gender equality will also less likely be supportive of globalization.

Figure 5 : Mean values from World Values Survey,[19] countries and regions (lower score signifies more agreement with stated views)

	Men make better political leaders	University is more important for a boy	Men have more rights to job
Africa	2.35	2.94	2.11
Arab World	**1.68**	**2.65**	**1.36**
Developed Countries	3.08	3.36	2.58
Eastern Europe	2.43	3.09	2.12
Latin America	2.81	3.09	2.43
South / Southeast Asia	2.38	2.84	1.90

Scale: columns 1 and 2: 1=strongly agree, 4 = strongly disagree; column 3: 1=agree, 3=disagree

Hypothesis 7: Citizens who held more traditional, inegalitarian attitudes toward gender equality are more likely to oppose globalization.

[19] World Values Survey, 2005-2008.

8. Do Economic Factors Drive Cultural Orientations Toward Globalization?

Finally, we investigate the relationship between economic and cultural factors in structuring attitudes toward globalization. Does an individual's economic position shape their attitudes toward Islam, gender roles, religiosity, and anti-Americanism? Is the causal pathway from economic position to cultural attitudes to views on globalization? Or do cultural attitudes have their own causal impact, while holding economic position constant? We use mediation analysis (Imai et al 2011) to investigate this issue.

3. Data and Methods

Our project first seeks to adjudicate between the role of economic factors and other political cultural factors in shaping attitudes toward globalization. We use data for this paper from the Pew Global Attitudes Project (GAP). We rely on the 2010 data, which has a question on preferences toward trade. GAP conducted a randomly representative survey in Egypt.[20] A multi-stage cluster sample was stratified by all four regions.[21] All 1000 surveys were conducted face to face in Arabic from April 12-May 3, 2010. The complete questions and the table which shows the summary responses for these variables are in our appendix below.

Our dependent variable is **Support for Trade**. It measures the answer to this question about increasing trade. *What do you think about the growing trade and business ties between Egypt and other countries – do you think it is a very good thing, somewhat good, somewhat bad or a very bad thing for our country?* Sixty-five percent in our sample agree that increasing trade ties is a good or very good thing. It takes on four values, higher values meaning more supportive.

Our key independent variables are six. First, we have our proxy for the economic factors in the Stolper-Samuelson model; we use **income** to proxy for relative skill and capital levels. We also look at **education** as a robustness check. [22] It should be noted here that income measures family income, not an individuals'. This is important since almost 50% of the sample is not employed. These are mostly women.

We have 6 other sets of variables that measure the non-economic factors. For **gender**, we have a dichotomous variable. To test the effects of the five other clusters, we create five indices from the survey variables that share an underlying commonality. The first index includes variables that tap into anti-Americanism by looking at attitudes toward the US. Our variable, called **Pro-US,** includes responses to two questions. The first taps into a measure of US favorability, while the second looks at the extent to which the US takes into account the interests of other countries. Higher scores on this variable, which runs from 1 to 4, indicate more support for the US. The second index looks at support for **radical Islam**.

[20] Other years of the GAP did not ask a question about trade or globalization, or did not look at Egypt, or did not have any of our non-economic variables in them. Other surveys such as WVS also did not have these types of questions.

[21] The four regions include: 1) The Nile valley and Delta, 2) western desert, 3) Eastern desert, 4) and Sinai Peninsula. Frontier governorates—with less than 2% of the population—were excluded for security reasons.

[22] We run one model with income only and a second with income and education. (See Tables 1 and 2 below).

Support for radical Islam, which runs from 1 to 4, measures favorability scores toward Hamas and Hezballah. Higher scores indicate more support for radical Islamic groups.

A third index taps into the role of **Islam in politics**. The Islam and Politics cluster includes three questions on whether *Hudud*[23] punishments should be enacted. This is our measure of support for an Islamic based legal system that conforms to a strict understanding of Shariah. These questions ask respondents whether they support the following: punishments for theft; stoning for adultery; and death penalty for leaving the Islamic faith. Higher scores on this variable, which runs from 0 to 1, mean more support for Islam in politics. For our fourth cluster, we look at attitudes toward gender equality to get at the extent of cultural conservatism. We include the following three questions a) whether women and men should have equal rights; whether men should be entitled to jobs when jobs are scarce; and finally whether women should have the right to work. Higher scores on this variable, called **modern** (0-1), indicate more support for gender equality. The final cluster is **religiosity**, and it is made up of two variables: how often you pray and how important religion is to you. Higher score on this variable, which runs from 0 to 1, means more religiosity.

For all 5 indices, the variables were added together and then divided by the number of components of the index. The components of both pro-US and Radical Islam are on 4-point scales, so these two indices also range from 1 to 4. The variables in the other three indices (Islam in Politics, Modern, and Religiosity) are on different scales so they are normalized to run from 0 to 1.[24] They have been converted to the same scale and run from 0 to 1.[25] Finally, we include employment (1= employed, 0= otherwise) and age as controls.

We run two sets of models below. The first is straightforward test of the existing data. Due to the sensitive nature of several of the questions we employ, the number of observations drops significantly. In the full model, we lose approximately a third of the sample (from 1000, we end up with 670 observations). As a robustness test to maximize coverage, missing index values were filled in with the non-missing values of the components. So, if a respondent answered the Hamas favorability question but not the Hezbollah favorability one, the index was filled in with the respondent's value for the Hamas favorability question. These changes increase the sample size by about 200 observations when the full model is estimated.[26] We include this model as well for robustness purposes as well.

[23] Hudud: usually refers to the class of punishments that are fixed for certain crimes that are considered to be "claims of God." They include theft, fornication and adultery (*zina*), consumption of alcohol or other intoxicants, and apostasy.

[24] See Appendix for descriptives and summary statistics.

[25] See Appendix Table 3 for correlation matrix. The indices do not correlate with one another in significant ways. The only exception is pro-US and Politics in Islam (.46) correlation. Nevertheless, we run each index separately in the models below.

[26] We attempted to run Amelia to impute missing values, but had little success. Filling in missing data based on other values is the second best option before us. When they were three variables in the index, we used the variables that had most observations first.

4. Findings

In tables 1 and 2, we report Ordinary Least Square (OLS) models with the each of the indices outlined above on **support for trade**.[27] We run each index separately with age, gender, employment as controls. Our first task is to see whether the economic model or any of the other non-economic indices provides a better model fit. For model fit, we use the Bayesian Information criterion (BIC).[28] We find that the model in Table 1 that provides the best fit (lowest BIC score) is the model with the **modern** index (BIC Score: 2403.15). Egyptians who are more egalitarian toward women are also more likely to favor trade. The .9 coefficient on this index is significant at the .001, and this index is scaled 0-1. The effect is quite considerable. The next model that provides a good fit is the **radicalism** model (BIC score: 2515.79). Here the -.38 coefficient is significant at the .001 level, but the effect is much smaller given the scale of 0-4. As expected, more support for radical Islamic groups means less support for trade. The **religiosity** and **Islam in politics** models come next, but the **Islam in politics** index is not significant, and the religiosity scale coefficient (.48) barely attains significance at the .10 level. Surprisingly, we find that Egyptians who are more religious are more likely to support trade. None of these indices correlate highly, as shown in our appendix. So we are measuring different dimensions of individuals' value systems.

There are two additional points worth highlighting here. The pro-US model has a poor model fit, but nevertheless the US favorability index is significant, however in an unanticipated direction. Those citizens who have more favorable opinions of the US are least likely to support trade. On the other hand those who are more anti-American are more supportive of trade. The coefficient of -.2 is quite small given the 0-4 scale. Yet, this finding does not substantiate our hypothesis—that anti-Americanism should decrease support for trade. Finally, the most notable finding here is that the non-economic factors systematically outperform the economic models. The BIC scores are highest for the economic models.

On the other hand, our main economic variable, **income**, is negative and significant in all the models. This is as anticipated by Stolper-Samuelson models. Those with more income have higher skills and more capital, and more trade should place them in greater competition with imports and foreign capital. Comparative advantage should favor low skilled workers in Egypt. They should gain from globalization and thus they should and do support it more.

Examining the demographic controls in the model, there are two findings worth highlighting. First, employment is linked to more favorable opinions on trade. Absent sector-specific data, we are unable to make conclusions about whether employed people are in sectors that would benefit from

[27] We get similar results using robust standard errors. And we get similar results using slightly different indexes.

[28] The Bayesian Information Criterion (BIC) can be used as a measure of model fit It is based on the log-likelihood of the model and the smaller the BIC, the better the model fit. Similar to the adjusted R2, the BIC adjusts for the number of right-hand side variables in the models, so adding more variables does not necessarily improve a model's BIC. The formula to calculate the BIC is -2*Log-likelihood of the model + k*ln(N) where k is the number of RHS variables and N is the sample size. By comparing the BIC across different models, we can determine which one is better. Raftery (1995) gives as a rule of thumb that a difference in BIC of 10 or more is very strong evidence to prefer a model over another.

trade. Yet, the evidence here seems to suggest that those who are employed are less threatened by increasing trade. Finally, women are far more favorable toward trade than men across all models, and the effect of close to .3 is quite significant (on a 0-1 scale).

In Table 2, we run the same models with filled in data so we do not face the problem of list-wise deletion and the bias it can create. By and large we find similar results. The model with the **modern** index provides the next best fit (after the **Islam and politics** model—which has an insignificant effect). Everything still runs in the same direction and religiosity plays a much more salient role than in the original models, with those who are more religious espousing greater support for trade. However, given the data, we don't want to overemphasize this result. Importantly, although the economic factors are still significant, the economic models still do not fit the data as well as all of the non-economic models.

Table 1: Support for Trade

	Demog (1)	**Income (2)**	**Inc+Educ (3)**	**Islam in Pol (4)**	**Modern (5)**	**pro-US (6)**	**Radicalism (7)**	**Religiosity (8)**	**All (9)**
Age	0.002	0.002	0.003	0.001	0.000	0.001	0.001	0.001	-0.002
	(0.002)	(0.002)	(0.003)	(0.003)	(0.003)	(0.002)	(0.003)	(0.003)	(0.003)
Gender	**0.318*** **	**0.340*** **	**0.341*** **	**0.306*** **	**0.054**	**0.331*** **	**0.351*** **	**0.346*** **	**0.212***
	(0.089)	**(0.090)**	**(0.090)**	**(0.096)**	**(0.101)**	**(0.088)**	**(0.092)**	**(0.093)**	**(0.111)**
Employment	**0.446*** **	**0.579*** **	**0.581*** **	**0.451*** **	**0.343*** **	**0.476*** **	**0.490*** **	**0.460*** **	**0.608*** **
	(0.089)	**(0.098)**	**(0.098)**	**(0.096)**	**(0.092)**	**(0.089)**	**(0.092)**	**(0.094)**	**(0.110)**
Income		**-.103*** **	**-0.118*** **						**-.144*** **
		(0.032)	**(0.033)**						**(0.038)**
Education			0.020						0.011
			(0.015)						(0.018)
Islam in Pol				0.160					-0.053
				(0.130)					(0.161)
Modern					**0.905*** **				**0.945*** **
					(0.152)				**(0.173)**
Pro-US						**-.199*** **			**-.351*** **
						(0.049)			**(0.067)**
Radicalism							**-0.378*** **		**-.278*** **
							(0.045)		**(0.051)**
Religiosity								**0.478***	0.233
								(0.253)	(0.312)
Constant	**1.986*** **	**2.097*** **	**2.013*** **	**1.862*** **	**1.971*** **	**2.321*** **	**2.626*** **	**1.479*** **	**2.896*** **
	(0.188)	**(0.193)**	**(0.205)**	**(0.222)**	**(0.192)**	**(0.206)**	**(0.207)**	**(0.300)**	**(0.403)**
N	987	960	959	868	854	978	887	910	670
Log-likelihood	-1397.27	-1357.14	-1354.43	-1232.86	-1184.70	-1378.30	-1240.93	-1285.85	-907.37
BIC	2822.13	2748.61	2750.05	2499.54	2403.15	2791.03	2515.79	2605.78	1886.32

OLS models with standard errors in parentheses calculated in stata12. Two-tailed test of significance: * p<0.10, ** p<0.05, *** p<0.001

Table 2: Support for Trade (Indices Filled in)

	Demog (1)	Income (2)	Inc+Educ (3)	Islam in Pol (4)	Modern (5)	pro-US (6)	Radicalism (7)	Religiosity (8)	All (9)
Age	0.002	0.002	0.003	0.001	0.002	0.001	0.002	0.001	0.002
	(0.002)	(0.002)	(0.003)	(0.003)	(0.002)	(0.002)	(0.002)	(0.002)	(0.003)
Gender	**0.318*** **	**0.340*** **	**0.341*** **	**0.329*** **	0.056	**0.320*** **	**0.353*** **	**0.326*** **	**0.183***
	(0.089)	**(0.090)**	**(0.090)**	**(0.092)**	(0.096)	**(0.088)**	**(0.087)**	**(0.088)**	**(0.098)**
Employment	**0.446*** **	**0.579*** **	**0.581*** **	**0.469*** **	**0.364*** **	**0.464*** **	**0.452*** **	**0.467*** **	**0.585*** **
	(0.089)	**(0.098)**	**(0.098)**	**(0.092)**	**(0.088)**	**(0.088)**	**(0.087)**	**(0.089)**	**(0.097)**
Income		**-.103*** **	**-0.118*** **						**-.121*** **
		(0.032)	**(0.033)**						**(0.033)**
Education			0.020						0.008
			(0.015)						(0.015)
Islam in Pol				0.150					0.102
				(0.120)					(0.130)
Modern					**0.909*** **				**0.852*** **
					(0.141)				**(0.149)**
Pro-US						**-.197*** **			**-.287*** **
						(0.049)			**(0.058)**
Radicalism							**-0.357*** **		**-.311*** **
							(0.042)		**(0.044)**
Religiosity								**0.521** **	0.062
								(0.234)	(0.262)
Constant	**1.986*** **	**2.097*** **	**2.013*** **	**1.840*** **	**1.860*** **	**2.337*** **	**2.589*** **	**1.518*** **	**2.778*** **
	(0.188)	**(0.193)**	**(0.205)**	**(0.214)**	**(0.185)**	**(0.205)**	**(0.196)**	**(0.281)**	**(0.355)**
N	**987**	**960**	**959**	**917**	**987**	**986**	**964**	**987**	**870**
Log-likelihood	-1397.27	-1357.14	-1354.43	-1293.10	-1376.79	-1387.41	-1332.46	-1394.79	-1168.19
BIC	2822.13	2748.61	2750.05	2620.31	2788.06	2809.29	2699.28	2824.04	2410.82

OLS models with standard errors in parentheses calculated in stata12. Two-tailed tests of significance: * p<0.10, ** p<0.05, *** p<0.001;

Economics and Culture: Chicken or Egg? Mediation Analysis

While the above analysis has shown that economics are not the primary driver of preferences toward trade, we are still confronted with the question of whether these cultural and/or political convictions are in fact determined by an individuals' economic position. Could it be that although economic factors have milder direct effects on trade attitudes, they may indirectly influence cultural and political attitudes crucial to shaping preferences about trade? Thus we turn to whether there is any evidence of a mediation effect in the analysis. Here we assume that our economic variable: income is our treatment, and the significant non-economic indices, "modern", "radicalism", "pro-US", and "religiosity," are our mediators. In mediation analysis, the idea is that a treatment variable has a significant effect on an outcome when the mediation variable is excluded but is insignificant if the mediation variable is included. This is complete mediation. Partial mediation occurs if the treatment effect remains significant when the mediation variable is included.

In mediation analyses, there is a single mediation variable that can be continuous or dichotomous as well as a treatment variable. The treatment variable probably should not be a true continuous measure because we are evaluating the effects at two values of the treatment. Variables

with limited values are better for the treatment. Here, the treatment is income which ranges in the data from 1 to 5. The mediating variables are the 4 significant non-economic indices: "modern", "radicalism", "pro-US", and "religiosity". The idea is to determine whether the non-economic indices are mediating some of the effects of the economic variable. That is, is some of the effect of income working through the non-economic variables on preferences toward trade?

There are four conditions that must be met for complete mediation to occur. First, the treatment variable must have a significant effect on the outcome variable when included by itself. Second, the treatment variable and the mediation variable must be significantly related. Third, the mediation variable must have a significant effect on the outcome. Finally, the effect of the treatment when the mediation variable is included must be insignificant for complete mediation to occur. If the treatment variable remains significant, but the first three conditions hold, only partial mediation is present.

There are four conditions that must be met for complete mediation to occur. First, the treatment variable must have a significant effect on the outcome variable when included by itself (Model 1 path c). Second, the treatment variable and the mediation variable must be significantly related (Model 2 path a). Third, the mediation variable must have a significant effect on the outcome (Model 3 path c). Finally, the effect of the treatment when the mediation variable is included must be insignificant for complete mediation to occur (model 4 path c'). If the treatment variable remains significant, but the first three conditions hold, only partial mediation is present. [29]

Following Baron and Kenny (1986) and Judd and Kenny (1981), we test this mediation argument by running the following four regression models:

Model 1: "Support for Trade" = β0 + βc "Income"+ βd Covariates + ε (1)

Model 2: "Non-Economic Indices" = β0 + βa "Income"+ βd Covariates + ε (2)

Model 3: Support for Trade = β0+ βb "Non-Economic Indices" + βd Covariates + ε (3)

Model 4: Support for Trade = β0 + βc' Income + βb "Non-Economic Indices" + βd Covariates + ε (4)

[29] Testing mediation models is significantly more complicated if one or both of the dependent variables is dichotomous since the scale of the coefficients in the two models (Model 1 and Model 2) will be different. See Herr (2012) Kenny (2013) and Buis (2010) for a detailed discussion of mediating effects with dichotomous outcome and dichotomous mediator variables. According to Kenny (2013), in a non-linear model the coefficients from the regressions should be rescaled (standardized) before computing the indirect effect. Until recently, this could only be done with software specifically designed for structural equation models (i.e. Lisrel, Mplus) but the models could not include weights. In the past two years, Stata has published two user-written packages that tackle the issue of mediation in non-linear models. These two packages are "mediation" (Hicks and Tingley 2011) and "binary mediation" (Ender n.d.). Both packages are appropriate for non-linear models and thus calculate the correct (standardized) indirect and direct effects with their corresponding standard errors (and confidence intervals). We use the former in this paper because it allows for the inclusion of weights, but for robustness, we also run our models with the Stata package, "binary mediation," (Ender n.d.), which allows the use of bootstrapped standard errors but does not allow for weights. The results are very similar.

To evaluate condition 1, we use the results from column 2 of table 1 (for the non-filled-in index) and from column 2 of table 2 (for the filled-in index). The effect of income is negative and significant so condition 1 is met. Condition 2 is only met for the "modern", "radicalism", "pro-US", and "religiosity" indices.[30] There is no relationship between income and either radical Islam or religiosity; they cannot be mediating the effect of income (see Table 3 below). Finally, condition 3 is met for all but religiosity. Because condition 2 was not met, though, there is no mediation for radical Islam. So only with the modern and pro-US indices are the conditions for mediation met. In none of the cases is condition 4 met—income has a significant effect on trade when any and all of the indices are included (See Tables 1 and 2 columns 9). So we find only partial mediation for two of the indices: "modern" and "pro-US".

The mediation effects are small. In both cases, most of income's effect is direct. With the pro-US index, only about 13% of the total effect is mediated. Very little of income's effect is going through the pro-US index. With the pro-US index and income the effects are moving in the same direction. Pro-US and income are positively correlated, and both are negatively related to views on trade. There is more of a mediation effect between income and "modern"; about 17% of the total effect is indirect. With the "modern" index, the situation is different. While income and "modern" are positively correlated, "modern" and trade are also positively correlated. In this case, income has a direct negative effect on trade support and so the negative amount of the total effect is mediated.

With the filled-in indices the results are very similar. The first three conditions are met for Modern and US, but also for Religiosity. Again, there is no relationship between income and Radical Islam. And again the mediation effects are about the same size. About -18% of the total effect of income is mediated by "modern" and about 13% is mediated by US. The mediating effect of religiosity is tiny—only 4% of the total effect of income is mediated by religiosity. (See Table 4)

Table 3: Mediation effect for indices, 2010

	Modern-Income	Pro-US-Income	Radical Islam-Income	Religiosity-Income
Condition 1	**Y**	**Y**	**Y**	**Y**
Condition 2	**Y**	**Y**	**N**	**N**
Condition 3	**Y**	**Y**	**Y**	**N**
Indirect effect	**0.069**	**-0.055**	**0.043**	**-0.009**
Direct effect	**-0.483**	**-0.364**	**-0.457**	**-0.391**
Total effect	**-0.414**	**-0.418**	**-0.414**	**-0.399**
% of total effect mediated	**-0.169**	**0.130**	**-0.103**	**0.022**

Income as treatment, non-economic index as mediator; support for trade is the outcome. The mediation effects were calculated using medeff in Stata12.

[30] See Appendix for Tables

Table 4: Mediation effect for indices (filled-in), 2010

	Modern-Income	pro-US-Income	Radical Islam-Income	Religiosity-Income
Condition 1	**Y**	**Y**	**Y**	**Y**
Condition 2	**Y**	**Y**	**N**	**Y**
Condition 3	**Y**	**Y**	**Y**	**Y**
Indirect effect	**0.074**	**-0.052**	**0.035**	**-0.015**
Direct effect	**-0.486**	**-0.355**	**-0.444**	**-0.398**
Total effect	**-0.412**	**-0.407**	**-0.409**	**-0.413**
% of total effect mediated	**-0.181**	**0.128**	**-0.085**	**0.036**

Income as treatment, non-economic index (filled-in) as mediator. Support for Trade as outcome. The mediation effects were calculated using medeff in Stata12.

5. Discussion

We have presented data from a single survey about Egyptian attitudes toward increasing trade and globalization. We explore the correlates of support for globalization. Our data show that both economic and non-economic factors matter, although non-economic factors may matter more. Individuals' views of trade depend on both their economic position and their cultural values. As implied by Stolper-Samuelson models, the more **income** an individual or her family has, the less supportive of trade s/he is in a developing country that is capital- poor. Unskilled labor should gain from increasing trade in a developing country, and we find evidence that Egyptians understand this. Interestingly, in our sample over 80% of the women were not employed, (over 80% of the men were) and income has a much stronger effect on attitudes toward trade among the men than it does among the women. This seems consistent with the economic models of preferences. **Education** has no effect in any of the models. It may be a poor measure of economic position, as many have claimed. But in the Egyptian context it does not seem to be associated with more economic knowledge and thus more support for free trade, as claimed in the OECD countries (Burgoon and Hiscox 2008). In our sample, low income and low education coexist strongly. But a highly educated person is not systematically associated with a higher income. In the Middle East, those who are highly educated are often young and without jobs and hence poorer. Employment also matters. In most models it is positively related to support for trade. Those who are employed see more value in increasing trade. The role of employment in trade models is complex since most simply assume full employment. Newer models, however, suggest that employment should matter. High levels of unemployment in Egypt and other developing countries thus bode ill for globalization.

Cultural and political attitudes also matter and they matter considerably. In fact, here they seem to matter more given the better model fits they show. The best fit seems to come from our index

measuring traditional versus **modern** attitudes toward women. This also fits well with the fact that we find that gender seems to matter strongly. Women hold more modern views on gender roles than men and have more support for globalization, even though very few are employed. This might indicate the women, on average, are more tolerant, and these attitudes bode well for globalization preferences. Indeed, for men the index of modern values is not significantly related to support for trade.

A puzzling finding is that **pro-US** sentiments are correlated with less support for trade. This is not at all what we expect. On the other hand, in our sample 82% have quite negative views of the US. Only a tiny group of Egyptians feels at all favorably toward the US, and this group tends to be high income (Jamal 2012), disinclined to support more Islam in politics, and less religious. And as we show above, some of this effect (13%) of pro-US is accounted for by the economic factor, income. Nevertheless, even accounting for this, pro-US attitudes seem related to anti-globalization feelings. Hence we find no support for the idea that anti-Western and anti-US attitudes translate into opposition to globalization.

Two interesting findings are that **Islam in politics** and **religiosity** are not related to support for globalization. Much of the literature seems to assume that these two sets of values would be significantly related. Support for stricter Shariah law in social life does not translate into opposition to globalization. This suggests that Islam in politics and globalization may be compatible in people's minds, or at least that there is no necessary conflict between economic modernization and conservative Islam.[31] It also appears that people who are more religious are also more inclined to support globalization. Again, religion in other contexts seems to be associated with less support for trade. So this is an unexpected finding for the Middle East. Moreover, it is also a good one. Egyptians do not appear to believe that they face a tradeoff between religion and opening up to trade. Islam once again seems to be compatible with globalization in many people's minds.

Support for **radical Islamic** groups, however, is related to opposition to trade. The conventional wisdom that sees these movements as resisting foreign penetration may be closer to reality in this case. But again these are extremist groups, not the mainstream Islamic religion. And in fact, those who are more religious in our data are less likely to support these radical groups (Hamas and Hezbellah). It is also notable that support for these groups is small. The mean of this variable is 1.94 out of 4 (=strongly favor), and almost 85% of the sample does not have a favorable attitude toward them. Dislike of the US and of these extremist groups is equally strong in Egypt.

6. Conclusions

We investigate the attitudes of a nationally representative sample of Egyptians citizens in 2010 toward globalization. We use their views on support for increasing trade and business ties to other

[31] Interestingly, women who are more supportive of Islam in politics are more supportive of trade, but men who are more supportive of Islam in politics are much more opposed to trade. Blending the gender effects then gives us the null finding.

countries as our measure of globalization. We ask whether economic models of trade policy preferences can explain Egyptians' views. Our data show that as Stolper-Samuelson models predict lower income citizens express more support for increasing trade ties. Unskilled workers are more likely to benefit from globalization in a developing country like Egypt, which is abundant relatively in this factor of production. We find no evidence that education matters since it does not appear to be related to employment or income clearly. We do find that employment matters, which seems to support economic models although theories of trade rarely focus on this.

We also examine a number of non-economic sources of preferences. Some of these are quite general and others more specific to the MENA region. The strongest of these appears to be attitudes toward gender equality. Those who view men and women are more equal are much more likely to support globalization. Why is this the case? Our data cannot answer this. We think that part of this is due to the fact that women are more likely to hold such attitudes and are more supportive of globalization in this context. But why we find this gender gap in our data is also puzzling. Furthermore, in developed countries women are less supportive of globalization and trade. So we have a double puzzle here. In addition, support for radical Islamic groups powerfully shapes views toward trade; those who are more supportive are much less favorable toward globalization. And those who oppose the US surprisingly support globalization. These latter two findings are tentative since support for the US and for radical Islamic groups is very thin in Egypt. The findings seem to be driven more by the fact that majorities support trade and look unfavorably on the US and radical Islamic groups. Interestingly, religiosity and Islam in politics do not have strong significant effects on globalization attitudes. It seems thus that Islam is not necessarily in opposition to globalization and economic modernization.

In our horse race between economic and non-economic sources of preferences, the non-economic ones provide a better fit for the data. Each of the indexes performs better in terms of model fit than the economic model Of course, the model with both economic and non-economic factors performs the best. Even when we conduct mediation analysis, we find that economic factors have some effect on the cultural ones, but that accounting for this is only partial and small amounts of mediation present. So while we can conclude that both economic and cultural factors matter, we find that non-economic forces appear to shape preferences toward globalization more strongly in Egypt.

Our research and findings are preliminary and tentative here. We have examined only one survey of Egypt in 2010. While Egypt is a large and important developing country, it has unique as well as common characteristics with other developing nations. It is a very religious Muslim dominated society as well as one with a strong geopolitical position that makes it a powerful US client. Its political and cultural views therefore may not be shared among many other countries. But in other ways it is a typical developing country with serious problems of governance and unemployment. Our data come from before the Arab Spring uprisings; hence they may not reflect attitudes now as Egypt undergoes extreme political turmoil. As Egypt's situation changes dramatically, its citizens' views on many of the topics we are examining may be changing. Understanding how these changes affect attitudes is important as well. How generalizable our findings are is thus an important question for future research.

In addition, we are not able to assess causality in this single survey design. Do attitudes toward politics and society shape or reflect an individual's economic position? This study along with most others on the topic cannot answer this question. We hope to do more experimental work in the future to better understand this causal connection. Furthermore, for the factors we do see as correlated with views toward globalization what is the causal story in each case? Why does income correlate negatively with support for trade? Is it because of the economic benefits of globalization, or are there other factors that cause this? Why are women more sympathetic to globalization here? Is it about their gains from trade or their greater tolerance for change and modernization? Why are views toward gender equality correlated with globalization attitudes? Is there a sense that economic modernization and openness will shake up the gender status quo, which is highly unfavorable to women, and thus globalization is seen as engendering greater gender equality? Is it a matter of cultural threat or labor market competition that drives these correlations? Why is it conventionally claimed that Islam is antithetical to globalization when we find no evidence of this? Further research and new methods such as experiments are necessary to address questions of this nature. These are questions that will structure our future work in Egypt and Tunisia.

This study has policy relevance as well. When calm returns to Egypt, the government will have to decide upon an economic strategy to move forward. Is there enough support for globalization and trade in Egypt for the government to move more in that direction? Our research suggests that the answer to this might be positive. Majorities say they support increasing trade and business ties with other countries. They also support the free market. Support for Islam at home and religiosity do not seem to undercut support for globalization. It seems Egyptians do not feel there is any necessary tradeoff between globalization and their religious beliefs, or between economic modernization and Islam. However, if recent events create growing support for radical Islam, this may create problems for the government if it wants to globalize. On the other hand, if Egypt were to move toward greater gender equality this would go hand-in-hand with more support for globalization. Growing unemployment is however another threat to globalization; those without jobs are unsupportive of increasing international economic ties. The effects of the uprisings in Egypt will no doubt have a substantial impact on all these sets of political and cultural attitudes. The extent of their malleability and which direction they take will be of great importance. Egypt's future does seem to depend heavily on these non-economic factors.

Appendix: Survey Questions, Indices, and Descriptive Statistics

Pew Global Attitudes 2010

These are the original questions and response categories. We have recoded many of these so that they run in consistent directions.

1. US Favorability (Q7A):

Please tell me if you have a very favorable, somewhat favorable, somewhat unfavorable or very unfavorable opinion of (INSERT)?

United States: 1 very unfavorable; 2 somewhat unfavorable; 3 somewhat favorable; 4 very favorable

2. US Accountability (Q37):

In making international policy decisions, to what extent do you think the United States takes into account the interests of countries like (survey country) – a great deal, a fair amount, not too much, or not at all? 1 Not at All; 2 Not too much; 3 Fair Deal; 4 A Great Deal

3. Hamas Favorability(Q7O):

Please tell me if you have a very favorable, somewhat favorable, somewhat unfavorable or very unfavorable opinion of (INSERT)?

Hamas: 1 very unfavorable; 2 somewhat unfavorable; 3 somewhat favorable; 4 very favorable

4. Hezballah Favorability (Q7P):

Please tell me if you have a very favorable, somewhat favorable, somewhat unfavorable or very unfavorable opinion of (INSERT)?

Hezballah: 1 very unfavorable; 2 somewhat unfavorable; 3 somewhat favorable; 4 very favorable

5. Trade (Q24):

What do you think about the growing trade and business ties between (survey country) and other countries – do you think it is a very good thing, somewhat good, somewhat bad or a very bad thing for our country? 1 very bad; 2 somewhat bad; 3 somewhat good; 4 very good

6. Equal Rights Women (Q80):

On a different subject, do you think women should have equal rights with men, or shouldn't they? 1 Should; 0 Should not;

7. Women Work (Q69B):

Please tell me whether you completely agree, mostly agree, mostly disagree, or completely disagree with the following statements:

Women should be able to work outside the home. 1 completely disagree; 2 mostly disagree; 3 mostly agree; 4 completely agree

8. Women Rights to Job (Q69C):

Please tell me whether you completely agree, mostly agree, mostly disagree, or completely disagree with the following statements:

When jobs are scarce, men should have more right to a job than women. 1 completely agree; 2 mostly agree; 3 mostly disagree; 4 completely disagree

9. Stoning (Q108C):

Do you favor or oppose making the following the law in **(Survey country)?** Stoning people who commit adultery: 1 Favor; 0 Oppose

10. Punishments (Q108B):

Do you favor or oppose making the following the law in (Survey country)? Punishments like whippings and cutting off of hands for crimes like theft and robbery: 1 Favor; 0 Oppose

11. Death Penalty (Q108D):

Do you favor or oppose making the following the law in (Survey country)? Death penalty for people who leave the Muslim religion: 1 Favor; 0 Oppose

12. Gender (Q120):

1: Male; 2: Female

13. Age (Q121):

How old were you at your last birthday?_____ years (RECORD AGE IN YEARS)

14. Importance of Religion (Q127):

How Important is religion in your life—very important, somewhat important, not too important, or not important at all? 1 Not at all important; 2Not too important 3 Somewhat important 4 Very Important

15. Pray (Q123):

How often, if at all, do you pray: hardly ever, only during religious holidays, only on Fridays, only on Fridays and religious holidays, more than once a week, every day at least once, or every day five times? 1 Hardly ever; 2 Only during religious holidays; 3 Only on Fridays; 4 Only on Fridays and religious holidays; 5 More than once a week; 6 Every day at least once; 7 Every day five times

16. Education (Q129):

1 No Formal Education; 2 Incomplete Elementary; 3 Completed Elementary; 4 Completed Intermediate; 5 Complete Secondary; 6 Complete College/post-secondary; 7 completed university/masters/post-graduate

17. Employment (Q130):

1 Employed (Full-time, Part-time, Pensioner and Employed, Self-Employed); 0 Unemployed (Pensioner, unemployed no state benefit, unemployed, receiving state benefit, no job with other government assistance for such things as maternity or disability not employed [eg housewife, houseman, student])

18. Income(Q131):

- 1: Less than 500 Egyptian Pound monthly
- 2: 501-750 Egyptian Pound monthly

- 3: 751-1000 Egyptian Pound monthly
- 4: 1001-1250 Egyptian Pound monthly
- 5: 1251-1500 Egyptian Pound monthly
- 6: 1501-1750 Egyptian Pound monthly
- 7: 1751-2000 Egyptian Pound monthly
- 8: 2001-2500 Egyptian Pound monthly
- 9: 2501-3000 Egyptian Pound monthly
- 10: 3001-4000 Egyptian Pound monthly
- 11: 4001-5000 Egyptian Pound monthly
- 12: More than 5000 Egyptian Pound monthly

Indices:

1. **Pro-American:**
   US Favorability+ US accountability/2

2. **Religiosity:**
   Pray+Important Religion/2

3. **Islam in Politics:**
   Stoning+ Punishments + Death Penalty/3

4. **Modern:**
   Equal Rights+ Women Work + Women Rights to Job/3

5. **Radical Islam:**
   Hamas Fav+Hezballah Fav/2

Appendix Table 1: Descriptive Statistics from Pew Global Attitudes 2010:

US Favorability	18% Favorable	82% Unfavorable
US Accountability	15% Great deal/Fair amount	85% Not too much/Not at all
Hamas Favorability	31% Favorable	69% Unfavorable
Hezballah Favorability	21% Favorable	79% Unfavorable
Support for Trade	65% Very good/good	35% Very Bad/Bad
Equal Rights Women	65% Should have Equal Rights	35% Should Not have Equal Rights
Women Work	62% Completely Agree/Agree	38% Completely Disagree/Disagree

Women Rights to Job	79% Completely Agree/Agree	21% Completely Disagree/Disagree
Gender	51% Male	49% Female
Stoning	85% Favor	15% Oppose
Death Penalty	86% Favor	14% Oppose
Punishments	80% Favor	20% Oppose
Pray	70% Five times a day	30% all Else
Education	33% High school above	67% High school and less
Employment	48 % Employed	52% Unemployed

Appendix Table 2: Summary Statistics

Variable	Obs	Mean	Std. Dev.	Min	Max
Trade	**987**	**2.734**	**1.011**	**1**	**4**
Age	**1000**	**36.811**	**12.979**	**18**	**72**
Gender	**1000**	**1.486**	**0.500**	**1**	**2**
Employment	**1000**	**0.483**	**0.500**	**0**	**1**
Income	**972**	**2.402**	**1.143**	**1**	**5**
Education	**999**	**4.227**	**2.333**	**1**	**8**
Economics index	**971**	**2.522**	**1.045**	**0.813**	**5**
Islam in Politics index	**878**	**0.842**	**0.264**	**0**	**1**
Modern index	**866**	**0.594**	**0.251**	**0.167**	**1**
Pro-US index	**991**	**1.727**	**0.645**	**1**	**4**
Radical Islam index	**898**	**1.943**	**0.749**	**1**	**4**
Religiosity index	**923**	**0.923**	**0.132**	**0.238**	**1**
Islam in Pol index (filled in)	**929**	**0.839**	**0.275**	**0**	**1**
Modern index (filled in)	**1000**	**0.607**	**0.251**	**0.167**	**1**
Pro-US index (filled in)	**999**	**1.726**	**0.644**	**1**	**4**
Radical Islam index (filled in)	**976**	**1.932**	**0.753**	**1**	**4**
Religiosity index (filled in)	**1000**	**0.921**	**0.138**	**0.143**	**1**

Appendix Table 3: Correlation matrix: Non-economic indices

	Islam	Modern	Pro-US	Radical Islam	Religiosity
Islam in Politics index	**1.000**				
Modern index	**-0.062**	**1.000**			
Pro-US index	**-0.413**	**0.127**	**1.000**		
Radical Islam index	**0.166**	**-0.069**	**0.044**	**1.000**	
Religiosity index	**0.428**	**-0.116**	**-0.369**	**0.001**	**1.000**
N=689					

Appendix Table 4: Correlation matrix: Non-economic indices (filled-in)

	Islam (filled in)	Modern (filled in)	Pro-US (filled in)	Radical Islam (filled in)	Religiosity (filled in)
Islam in Politics index (filled in)	**1.000**				
Modern index (filled in)	**-0.044**	**1.000**			
Pro-US index (filled in)	**-0.368**	**0.103**	**1.000**		
Radical Islam index (filled in)	**0.145**	**-0.073**	**0.015**	**1.000**	
Religiosity index (filled in)	**0.374**	**-0.129**	**-0.369**	**0.005**	**1.000**
N=905					

Mediation Analysis: Condition 2 Tables (Income on non-Economic Indices)

	Modern (1)	pro-US (2)	Radicalism (3)	Religiosity (4)
Age	-0.000	**-0.001***	0.002	0.002
	(0.001)	**(0.002)**	(0.002)	(0.0003)
Gender	**0.279*** **	0.23	0.105	-0.158
	(0.198)	(0.057)	(0.067)	(0.012)
Employment	**0.069*** **	0.001	-0.009	**-0.030** **
	(0.022)	(0.063)	(0.074)	**(0.013)**
Income	**0.018*** **	**0.074*** **	-0.023	**-0.010***
	(.007)	**(.021)**	(.024)	**(.004)**
Constant	**0.113*** **	**1.642*** **	**1.76*** **	**.913*** **
	(0.04)	**(0.123)**	**(.144)**	**(0.026)**
N	960	959	938	960
Adj R2	.214	.014	.005	.038

Robustness Tables:

Robustness table 2: Mediation effect for non-economic indices on economic index (income + education), 2010

	Modern-Econ Index	Anti-US- Econ Index	Radical Islam- Econ Index	Religiosity- Econ Index
Condition 1	N	N	N	N
Condition 2	Y	Y	N	N
Condition 3	Y	N	Y	N
Indirect effect	0.156	-0.046	0.047	-0.006
Direct effect	-0.325	-0.149	-0.248	-0.157
Total effect	-0.169	-0.195	-0.201	-0.163
% of total effect mediated	-0.709	0.206	-0.203	0.028

Econ Index as treatment, non-economic index as mediator

Robustness table 3: Mediation effect for income, 2010

	Modern-Income	Anti-US-Income	Radical Islam-Income	Religiosity-Income
Condition 1	Y	Y	Y	Y
Condition 2	Y	Y	N	N
Condition 3	Y	Y	Y	Y
Indirect effect	-0.046	-0.050	0.018	0.028
Direct effect	0.938	-0.542	-1.165	0.414
Total effect	0.892	-0.592	-1.147	0.443
% of total effect mediated	-0.051	0.084	-0.015	0.061

Non-economic index as treatment, Income as mediator

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