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Public Trust and Press Freedom

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## Abstract

According to World Public Opinion poll, no country leader enjoyed worldwide trust in 2008. Only the leaders of China, Iran, and Russia received consistently higher trust ratings domestically than abroad. Not incidentally, these countries also score low in political and press freedoms. We build a parsimonious regression model that seeks to explain differences in trust ratings using country and leader characteristics. We find that just nine variables can explain over 60% of the variation in leader trust ratings. One of the strongest associative determinants of leader trust is press freedom.

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### 1. Introduction

Trust in political leaders appears to be as low as ever. According to 2008 World Public Opinion (WPO) poll of 19, 751 respondents from 20 nations, none of the leaders inspire worldwide confidence. Out of the twenty countries, only the leaders of China, Iran, and Russia received significantly and consistently higher trust ratings domestically than abroad. Interestingly, these three countries also have some of the lowest political and press freedom rankings in the world.

Surprisingly, several countries appear to trust some foreign leaders more than their domestic constituents do. For example, 66 percent of Chinese respondents expressed trust in the French leader compared to only 45 percent of the French respondents. In turn, 79 percent of respondents in France expressed trust in the Spanish leader compared to 56 percent of responding Spaniards. The biggest foreign trust "credit" came from Azerbaijan, where 62 percent expressed trust in Ukraine's leader compared to only 28 percent of Ukrainians.

These cross-country trust differences in ratings of the same leaders are rather perplexing. In a zero-sum game, one country's gain is another country's loss. The same could be said about country leaders' ratings. Even in a world with perfect information and zero anti-foreign bias, domestic trust rating of a leader is likely to exceed foreign. Even among allies, it is difficult to imagine that a domestic trust rating would fall below a foreign one. Perhaps, asymmetric information is partially responsible for the observed differences in leader ratings. Countries' varying perceptions of personal characteristics of a leader might also explain some of the observed differences in trust ratings.

In this study, a first of its kind, we examine the associative determinants of cross-country trust differences in ratings of 17 country leaders from the World Public Opinion survey. The key variable of interest in the study is press freedom. The empirical analysis of 140 country dyads reveals that political, socioeconomic, and cultural variables can explain over 60% of the observed variation in leader trust differences. The empirical model also shows that net exports, press freedom, and uncertainty avoidance are among the strongest associative determinants of leader trust ratings.

### 2. Literature Review

The literature on public attitudes towards political agents is both vast and multidisciplinary, but its brief overview reveals that the news media plays an important role in shaping the public opinion of government officials and their policies. For instance, DellaVigna and Kaplan (2007) estimate that the introduction of Fox News had a significant positive effect on the likelihood of its viewers to vote Republican in the 1996 and 2000 presidential elections. Public approval of and trust in a country's leader usually go hand-in-hand (Citrin and Green 1986) and depend strongly on the media coverage, which over 70 percent of Americans believe exhibits a great deal or a fair amount of bias.<sup>1</sup>

<sup>&</sup>lt;sup>1</sup> Pew Report "News Audiences Increasingly Politicized", April 2004.

Recent empirical studies confirm the existence of a bias in the U.S. news media. For example, Groseclose and Milyo (2005) document that 18 out of 20 news outlets studied exhibited more liberal views than the average U.S. voter and member of Congress. Controlling for the factors that affect how quickly a state is called in favor of a presidential candidate, Mixon et al. (2004) find that the main news outlets called the states won by Al Gore 14 to 18 minutes faster than those won by George Bush. Puglisi's (2011) analysis of New York Times articles for the 1946-1994 period reveals that more emphasis was given to the issues on which Democrats were traditionally stronger than Republicans. Lott and Hassett's (2014) analysis of newspaper headlines during the 1991-2004 period indicates that reporting on the economy was more positive relative to the actual data during the Clinton administration than during the two Bush administrations.

Studies suggest that news media exhibit a sensationalist bias, often overstating the likelihood of some event or its severity (Ansolabehere et al. 2005). Hong and Zhao (2014) develop a model showing that sensationalism may actually help to overcome the collective decision problem in dealing with climate change. News media have also been accused of exhibiting an anti-foreign bias. Jordan and Page (1992), for example, find that Americans tend to discount the views of foreign leaders and that the statements of media commentators, purported nonpartisan experts, opposition figures, and popular presidents have the largest effect on the public opinion on foreign and domestic policy issues. Feldman and Zaller (1992) argue that the style and substance of news reporting can easily alter individual attitudes on an issue, which is especially likely in the realm of foreign and national security policies (Mueller 1973). Similarly, Chanley's (1999) analysis indicates that the news coverage can alter public support for general and militant internationalism. Brewer et al. (2004) demonstrate that Americans are largely pessimistic about whether the United States can trust other nations. Hayes and Guardino (2011) also note that nonofficial voices tend to appear in mass media coverage only when their views are sanctioned by the institutional elites or when their views are so extreme as to be disregarded entirely. Consequently, Hayes and Guardino conclude that foreign leaders are more likely to be perceived as hostile to American interests. Anti-foreign media bias has also been detected in other countries. Gentzkow and Shapiro (2004), for example, find that more information does not necessarily lead to more accurate perceptions of world events. They argue that certain news outlets and education systems may actually increase misinformation and hostility toward America in Muslim countries.

The anti-foreign bias, lack of dissent, and corruption are more prevalent in societies where the government has more control over the media. For example, Leeson (2008) finds that low media freedom is associated with voters' low political knowledge and participation. Barabas and Jerit (2009) also show that the volume, breadth, and prominence of news media coverage strongly influence public knowledge and opinion of government policy. Enikolopov *et al.* (2011) document a higher probability of voting for opposition parties among the viewers of independent TV channels in Russia. Similarly, Durante and Knight (2012) demonstrate that the news content on Italy's public television favors the ruling party and that people prefer to watch channels with ideological content similar to their own. The lack of independent news media makes it difficult for voters to control their representatives. Kalenborn and Lessmann's (2013) analysis of over 170 countries indicates that democratic elections and free press work hand-in-hand to reduce government corruption.

Several theories have been developed to explain the aforementioned characteristics of news media. In a seminal book, Herman and Chomsky (1988) argue that the U.S. media serve, and propagandize on behalf of, powerful groups that control and finance the media. As a result, the public receives a carefully crafted message where dissent and inconvenient facts are marginalized rather than crudely suppressed. This is usually achieved through the "right" personnel selections, self-censorship, and other means. In contrast, Hamilton (2004) develops the economic theory of news, which emphasizes how the market structure and incentives may affect the news content and its bias. Specifically, Hamilton finds that cable competition, deregulation, and ownership changes have shifted the U.S. news content away from politics and toward entertainers in recent years. Several other economists offer a similar consumer-driven argument for the existence of the media bias. Mullainathan and Shleifer (2005) develop a model where even competitive news media are shown to sacrifice accuracy in order to satisfy preexisting viewer beliefs or biases. Similarly, Gentzkow and Shapiro (2006) develop a model of media bias where the news firms slant their reports toward the prior beliefs of their customers in order to build a reputation for quality. On the other hand, Baron's (2006) supply-side model features journalists who produce biased reporting for career advancement and consumers who demand less of biased news organizations. However, Gentzkow and Shapiro (2010) offer evidence suggesting that readers prefer like-minded news and the newspapers oblige them.

Despite the aforementioned biases, studies suggest that a competitive free press can still deliver a relatively critical assessment of domestic leaders and their policies, leading to better governance and lower corruption in democratic nations. Hence, we hypothesize that countries with democratic institutions and free press should exhibit relatively critical (low) trust ratings of their leaders. This reasoning is echoed by the abnormally high WPO trust ratings for the leaders in China, Iran, and Russia. In the next sections, we offer a more rigorous analysis of this hypothesis.

### 3. Data

World Public Opinion (WPO) is an international collaborative project that documents public opinion around the world on international issues. Between January 10 and May 6 of 2008, World Public Opinion polled 19,751 respondents in 20 nations that comprise 60 percent of the world's population.<sup>2</sup> With the margin of error from +/-2 to 4 percent, the poll revealed that none of the national leaders inspire worldwide confidence. More interestingly, WPO offers both domestic and foreign trust ratings for the same leaders, allowing us to estimate the associative determinants of cross-country differences in leader trust ratings.

WPO data results in a sample of 20 countries rating some but not all of the available 17 country leaders, which amounts to a total of 140 dyadic differences in trust ratings (foreign minus domestic). However, the sample is unbalanced because not all countries and leaders are represented proportionally in the WPO poll. For example, the leaders of six countries (China,

<sup>&</sup>lt;sup>2</sup> The poll was conducted in China, India, United States, Indonesia, Nigeria, Russia, Mexico, Argentina, Britain, France, Spain, Azerbaijan, Ukraine, Egypt, Jordan, Iran, Turkey, the Palestinian territories, South Korea, and Thailand.

France, Iran, Russia, UK, and US) are rated by 18 other countries each (108 dyads), while the remaining 11 leaders (32 dyads) are rated by as few as one (Argentina's leader) and as many as six other countries (Turkey's leader). Jordan, Nigeria, and South Korea are the only countries in the sample that rate foreign leaders but not their own.

The dependent variable in this study is the share of respondents in a foreign country expressing "a lot" or "some" confidence in a leader minus the share of domestic respondents expressing "a lot" or "some" confidence in the same leader. Essentially, our dependent variable represents the "trust distance" between foreign and domestic perceptions of a given leader. The vast majority of trust differences are negative, suggesting the prevalence of anti-foreign bias in leader ratings. The average foreign trust rating of a leader in our sample is 0.4 (forty percent) and domestic is 0.61 (sixty one percent), putting the average trust difference at -0.21.

More than forty variables were considered as possible predictors of trust differences, including political, socioeconomic, and cultural variables as well as individual leader characteristics such as height, age, gender, and race. Many of these variables are very collinear and probably capture related latent factors. Based on previous research and using pair-wise correlations, factor analysis, and variance inflation factor (VIF) tests, we narrowed down the list of significant and relevant trust predictors to just nine. These variables and their sources are described in Table I.

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### Table I: Variable Summary

Notes: Each variable enters the model as a difference (foreign minus leader's own country value).

The main variable of interest in this study is press freedom. We consider two alternative press freedom measures. Our preferred measure is an index from Reporters Without Borders that ranges from 0 to 100, with 100 meaning zero press freedom. To make the interpretation more intuitive, we invert the press freedom index to show greater press freedom as the index's value approaches 100. Similarly, we invert our alternative measure, freedom of the press index from the Freedom House. The inverted index has a similar range, where values closer to 100 indicate greater press freedom.

The other independent variables are: Polity IV measure of democracy, net exports share in GDP as a measure of openness, PPP-adjusted real GDP per capita, NATO membership dummy (1 if country is in NATO as of 2008), leader's race dummy (1 if the leader is Caucasian), Fearon's (2003) cultural fractionalization (diversity) index, and Hofstede's (1980) long-term orientation and uncertainty avoidance indices.

#### 4. Empirical Model and Estimates

The existing literature indicates that the news media, which is our main focus, plays an important role in shaping the public opinion of national leaders. In addition to individual leader characteristics, it is also reasonable to expect that national factors such as income, openness, democratic institutions, alliances, culture, and mentality could be correlated with leader ratings. Our parsimonious model attempts to capture many diverse determinants of trust ratings without generating multicollinearity. All variables enter the regression model as dyadic differences (foreign country's value minus leader country's value). Essentially, the regression model in equation (1) seeks to explain the "distance" in trust ratings by the "distance" in country and leader characteristics.

$$Y_f - Y_d = \alpha + (X_f - X_d)\beta + \varepsilon_{fd}$$
(1)

Where, Y is the trust difference between the two countries in a dyad, X is a vector of independent variables, f denotes a foreign country, d denotes a country with domestic leader rating, while the remaining elements to be estimated. The are nine variables in X: press freedom index, democracy index, NATO membership dummy, net exports share in GDP, real GDP per capita, Hofstede's long-term orientation and uncertainty avoidance indices, cultural fractionalization index, and Caucasian leader dummy.

First, we estimate the model in equation (1) via ordinary least squares (OLS) with heteroskedasticity robust (Huber-White) standard errors. Variance inflation factors (VIF) are below five for all nine variables, indicating no multicollinearity problems (VIF results available from the authors upon request). The model also passes two specification tests. The first test uses predicted dependent variable and its square as regressors to determine if the model suffers from omitted variable bias. The second test is Ramsey's (1969) Regression Equation Specification tests. Both tests indicate that the model is well-specified (results available from the authors upon request).

The OLS estimates are presented in column 1 of Table II. The OLS model explains 62 percent of the variation in the dependent variable with just nine regressors, all of which are statistically significant at the commonly accepted p-value of 0.05 or less. For ease of interpretation, we show both marginal and standardized (beta) coefficients for the OLS model. Standardized coefficients allow for a direct comparison of the relative effects of regressors on the dependent variable regardless of their units of measure. Judging by the standardized coefficients, the three strongest associative determinants of leader trust are, in the descending order: net exports, press freedom, and uncertainty avoidance. Press freedom, our key variable of interest, is positive and statistically significant at the 1% level in the OLS model.

	<u>oter minants of F</u> OI	oreign-Domestic	Log Lik	
-	Marginal	Beta	Marginal	Marginal
	Effects	Coefficients	Effects	Effects
Press freedom	0.002***	0.22	0.002***	0.002***
	(0.0008)	0.33	(0.001)	(0.001)
	0.016**	0.24	0.014**	0.019**
Democracy	(0.0073)	0.24	(0.007)	(0.009)
NATO member	-0.091**	-0.21	-0.032	-0.039
	(0.0436)	-0.21	(0.044)	(0.055)
CDD per conita	0.004**	0.23	0.004**	0.004
GDP per capita	(0.0018)	0.23	(0.002)	(0.003)
	0.009***	0.43	0.009***	0.009***
Net exports	(0.0011)		(0.001)	(0.001)
	0.188***	0.22	0.179***	0.196***
Cultural fractionalization	(0.0540)		(0.043)	(0.065)
<b>•</b> , • , ,•	0.001***	0.24	0.001***	0.002***
Long-term orientation	(0.0003)	0.24	(0.0003)	(0.0004)
Uncertainty avoidance	-0.002***	-0.29	-0.002***	-0.002***
	(0.0005)		(0.0004)	(0.001)
	-0.115***	-0.28	-0.111***	-0.088**
Caucasian leader	(0.0367)		(0.034)	(0.044)
Constant	-0.275***		-0.024	0.004
	(0.0215)	-	(0.041)	(0.113)
Lombdo	· · · · · ·		0.026***	0.031***
Lambda	-	-	(0.004)	(0.012)
R-squared	0.6	52	0.60	0.60
Observations	14	0	140	108

### Table II: Determinants of Foreign-Domestic Trust Difference

*Notes:* Each variable is expressed as a dyadic difference (foreign minus domestic value). The second column contains "beta" or standardized OLS coefficients. Pseudo R-squared is reported for the log likelihood regressions. Heteroskedasticity robust (Huber-White) standard errors are reported in the parentheses. Significance levels: \*\*\* at p-value = 0.01, \*\* at p-value = 0.05, and \* at p-value = 0.1.

Interpreting the signs of the regression coefficients is a little tricky in our model. Recall that all variables are expressed as a dyadic difference (foreign minus domestic values), which can be negative or positive. A positive coefficient implies that the average difference in trust ratings of a leader shrinks (gets closer to zero) as the difference between the two countries in a dyad closes. A positive coefficient for the press freedom index implies that more press freedom leads to more trust in foreign leaders, closing the difference in trust ratings. Similarly, a relative increase in a foreign country's democracy, GDP per capita, net exports, diversity, and long-term orientation can increase foreign trust in a domestic leader.

For a negative coefficient, the opposite is true: foreign trust in domestic leader falls (difference widens) when foreign countries rise up to domestic in uncertainty avoidance, for example. Similar interpretation applies to Caucasian leader dummy, NATO membership dummy, and uncertainty avoidance. For example, moving from a dyad where both leaders are not Caucasian (the difference in dummies is 0-0=0) to a dyad where only the foreign country's leader is Caucasian (now the difference is 1-0=1), pushes the trust difference deeper in the negative range, suggesting that Caucasian countries have less trust in non-Caucasian foreign leaders.

The second regression in Table II is a spatial error-like model estimated via maximum log likelihood with standard errors corrected for cross-sectional dependence and heteroskedasticity:

$$Y_f - Y_d = \alpha + (X_f - X_d)\beta + \lambda W \varepsilon_{fd} + \xi_{fd}.$$
 (2)

Where,  $\lambda$  is the coefficient for the vector of correlated errors  $\varepsilon_{fd}$  that are weighted by the spatial matrix W,  $\xi_{fd}$  is a vector of uncorrelated errors, and the remaining elements are as previously defined. Due to repeating countries in the dyads, cross-sectional dependence might be present in the error term (Conley 1999). To correct for this correlation, we introduce a binary weight matrix<sup>3</sup> (W) that identifies re-occurring countries in the dyads similar to how a binary spatial weight matrix identifies contiguous (neighboring) localities. The estimates reveal that the press freedom variable remains positive and statistically significant, although NATO membership and the constant lose their significance.

The third regression in Table II is also a maximum log likelihood spatial error model, but it is fitted to a balanced subsample of 108 dyads (6 country leaders rated by 18 other countries) out of available 140 dyads. The press freedom coefficient remains positive and statistically significant, indicating that this result is not driven by the unbalanced nature of our dataset.<sup>4</sup> However, the smaller sample appears to nullify the significance of NATO membership, GDP, and the constant. VIF tests also indicate that the correlation between the regressors is also low in the small sample (results available from the authors upon request). Statistical significance of  $\lambda$  in the two spatial error models implies dependence among the dyads, justifying the aforementioned correction of the error term. As a robustness check, we also estimate a spatial lag model, which yields

 $<sup>^{3}</sup>$  It is a 140 by 140 matrix with zeros for diagonal elements and ones for the intersection of rows and columns (i.e. dyads) containing identical countries.

<sup>&</sup>lt;sup>4</sup> To ensure that outliers are not driving our main finding, we also estimate a median (weighted) regression for the full sample of 140 dyads and obtain qualitatively similar results.

qualitatively similar results for the press freedom variable (results available from the authors upon request).

In an alternative model specification, we examine "freedom of the press" index from Freedom House instead of the previously used Reporters Without Borders' press freedom index. The freedom of the press variable also turns out positive and statistically significant and has the largest beta coefficient in the model (results available from the authors upon request). However, this index has an alarmingly high correlation with democracy and NATO variables, causing the model to perform poorly on the two aforementioned specifications tests. We also try including other control variables in the model, but often find them to be strongly collinear with the existing regressors. For example, one of the interesting control variables is Rosenberg's Self-Esteem Scale (Schmitt and Allik 2005), which appears negative and statistically significant in our alternative specification. However, due to its high correlation with GDP and NATO variables, they lose significance and the model fails the two specification tests. Therefore, we only report the estimates for the original model specification.

Table III: Average Observed and Predicted Trust Differences				
Country/Leader	Observed – Predicted	Country/Leader	Observed – Predicted	
Argentina/Cristina Kirchner	0.19	Mexico/Felipe Calderon	0.23	
Azerbaijan/Ilham Aliyev	0.01	Peru/Alan Garcia	0.19	
China/Hu Jintao	-0.03	Russia/Vladimir Putin	-0.12	
Egypt/Hosni Mubarak	-0.03	Spain/José Zapatero	0.21	
France/Nicolas Sarkozy	0.02	Thailand/Surayut Chulanon	0.16	
Great Britain/Gordon Brown	0.08	Turkey/Recep Erdoğan	-0.1	
India/Manmohan Singh	0.14	US/George W. Bush	0	
Indonesia/Susilo Yudhoyono	0.04	Ukraine/Viktor Yushchenko	0.14	
Iran/Mahmoud Ahmadinejad	-0.1	Mean	0.06	

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In Table III, we show that the average *observed* trust difference for each country leader in our sample is very close to the average *predicted* trust difference obtained from the OLS model. With the mean gap between predicted and observed differences of only 0.06, the OLS model explains the average variation in trust differences between dyads guite well. Moreover, all 17 average gaps between observed and predicted values are within two standard deviations, implying that they are not statistically significant.

There are only eight country dyads where the gap between observed and predicted trust differences exceeds two standard deviations, implying that these eight gaps are statistically significant (see Table IV). The gaps between observed and predicted values could be attributed to omitted or difficult to quantify factors such as nationalism, cultural ties, leader's charisma and specific policies. The largest gap between the observed and predicted trust differences occurs between the French and Spanish rating of Spain's leader José Zapatero. This gap is notable for a couple of reasons. With a 51-percentage point difference, it is not only the largest observedpredicted gap but also an unusual case of the foreign trust rating exceeding domestic.

Foreign Country	Leader's Country	Observed Trust Difference	Predicted Trust Difference	Observed – Predicted
US	Iran	-0.78	-0.42	-0.36
Ukraine	France	-0.06	-0.44	0.38
France	Great Britain	0.00	-0.38	0.38
Iran	France	-0.27	0.12	-0.39
Iran	US	-0.36	0.04	-0.4
Iran	Great Britain	-0.41	0.01	-0.42
US	France	-0.04	-0.51	0.47
France	Spain	0.23	-0.28	0.51

Table IV: Dvads with Significant Observed-Predicted Gaps

### 5. Summary

2008 World Public Opinion poll revealed several interesting facts about public trust in country leaders. First, no leader enjoys worldwide trust. Second, leaders usually have higher trust ratings at home than abroad, although in some countries the opposite is the case. Third, the leaders of only three countries (China, Iran, and Russia) received consistently higher trust ratings at home than abroad. Notably, these countries also have some of the lowest press and political freedom ratings. Regression analysis of cross-country trust differences indicates that over 60% these variations can be explained by just a handful of country and leader characteristics. Ranked in the descending order of associative impact magnitude, these factors are: net exports, press freedom, uncertainty avoidance, leader's race, democracy, long-term orientation, GDP per capita, cultural fractionalization, and NATO membership. Our estimates suggest that foreign minus domestic trust gap shrinks (expands) when countries become similar (diverge) in net exports, press freedom, democracy, long-term orientation, cultural fractionalization, and GDP per capita. The estimates also suggest that NATO and Caucasian countries tend to trust less in country leaders who are not Caucasian or not in NATO.

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