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The effect of China's political relations on her international trade

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Abstract

The EU's achievements belong to a larger set of greater international, political and economic integration witnessed in the post-World War II era. Though political and economic integration may be thought as mutually re-enforcing, recent events (e.g., Brexit, the 2016 US Presidential Elections) have caused people to think otherwise. China's growing influence on the world has had profound effects on the political and economic decisions of her partner countries. This paper demonstrates that regardless of the severity of the conflict (displeasure at meetings with the Dalai Lama; saber-rattling over disputed territory), political relations affect trade between China and her partners. Warmer relations lead to larger increases (or smaller decreases) in trade while cooler relations have the opposite effect. This finding is robust to estimation methods (pair-specific VARs; a SUR system).

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1 Introduction

Globalization and economic integration is a salient feature of the modern world. In particular, greater division of labor and increasing specialization have led to the globalization of production of many goods and services, which has increased international trade flows (e.g. Krugman et al. (2014)). Against this trend of globalization, however, international politics is not becoming less complex. Political tensions may considerably hinder all aspects economic of integration such as trade and investment. Recent examples include political disagreement between the United Kingdom and other member states of the European Union over immigration and refugee policy, a disagreement that led to the Brexit vote of 2016 and a future, anticipated decline in UK-European trade. Growing tensions in the South China Sea among a set of countries (the US, China, Vietnam, and the Philippines) who are important trade partners for each other provide another example.

The theoretical reasoning that international conflict may affect trade is straightforward. An individual obtains utility from several sources, including price, perceived product quality, and emotional factors. In the absence of international conflict, nationalist emotions are at a low ebb. Consequently, consumers tend to focus on prices and quality only. However, when a major international conflict occurs, nationalism may suddenly flare up from the sensational reports of the media. In this case, many individuals may refuse to consume the goods produced by the “enemy” country. The 2012 conflict between China and Japan over a group of islands known in Chinese as Diaoyu and in Japanese and Senkaku led to boycotts by each nation of the other nation’s goods (See Fackler and Johnson (2012), Emily (2012), and Lynch (2012)). As evidence that better political relations and a greater volume

of international trade go hand-in-hand, consider the recipient of the Nobel Peace Prize in the same year: the European Union.

However, due to data scarcity, the empirical research in this area is still limited. Most of these studies are in the literature of political science (e.g. Pollins (1989) and Schneider et al. (2003)). This literature essentially examines how institutions affect trade. In the economics literature, Moenius and Berkowitz (2011) present a more general analysis about how institutions influence international trade. Glick and Taylor (2010) and Che et al. (2015) are two empirical studies that are particularly related to this paper. Based on the gravity model, Glick and Taylor (2010) demonstrate that over the period 1870-1997, the wars between two countries have substantial and persistent impacts on their trade. Che et al. (2015) show that in China, the regions that suffered more civilian casualties during the Japanese invasion from 1937 to 1945 tend to trade less with Japan in recent decades, *ceteris paribus*.

China presents herself as an interesting case for considering the relation between international trade and international conflict. Since the inception of the People's Republic of China in 1949, China has experienced relations both excellent and tense with other countries, often switching quickly (e.g., India and Indonesia). While worsening relations have led to severe armed conflict in certain cases (e.g., the Sino-Indian war of the 1960s, the Sino-Vietnamese war of the 1970s), most cases of tense international relations between China and other countries have not led to explicit military aggression. Since 1949, especially since the late 1970s, China has unquestionably become a key trading partner for a number of countries. Hence, investigating the links between China's political and economic emerges as a reasonable line of inquiry. In the past 3 decades, China emerged in the international marketplace with greater and greater economic significance and more and more political influence. China has often been the target of criticism in the western media for not strictly following the "international norm." Criticism in non-Chinese media

outlets often generates criticism in Chinese media towards the other country. One may wonder if the association between falling trade and military conflict applies to international trade and a general worsening of relations without outright military aggression.

This project aims to add to the empirical study on the impact of international conflicts on trade. In contrast to the existing literature, we focus on international conflicts generally, which are mainly emotional in nature and do not involve the potential destruction of factors of production, rather than wars exclusively. We examine the impacts of the change of political relations between China and 12 countries.¹ We find that a significant effect of changes in political relations on Chinese imports and exports with partner countries. This effect is robust to estimation strategies. The effect also indicates generally that the better the relations, the larger the increase (or smaller the decrease) in trade between China and her partners.

The structure of this paper is as follows. Section 2 describes our statistical methodology. Section 3 describes the data used. Section 4 presents result. Section 5 concludes.

2 Methodology

A model such as a gravity equation is used traditionally to explain bilateral trade for all pairs of countries in a given set of countries where trade between countries i and j depends on i -specific variables, j -specific variables, and ij -specific variables. The question of interest for this paper (the importance of political relationships in explaining Chinese trade) makes a gravity equation unfeasible owing to the lack of data quantifying political relationships between non-Chinese countries (e.g., the

¹Australia, Germany, France, India, Indonesia, Japan, Republic of Korea (South), Pakistan, Russia, the United Kingdom, the United States of America, Vietnam

political relationship between the US and Japan). Furthermore, a gravity model where trade is a function of political relations could obscure the possibility that political relations themselves are a function of trade. Political rhetoric from the 2016 US Presidential Campaign certainly reflects a worsening in relations in response to greater exposure to non-US products, particularly from China.

To address this concern, this paper relies on dynamic models, namely a Vector Autoregression (VAR) and a System of Seemingly Unrelated Regressions (SUR). Let X_{ijt} denote the real value of aggregate exports from i to j at time t and let Political_{ijt} denote the political relation score between i and j at time t . Our most general model is of the following form:

$$X_{ijt} = \sum_{l=1}^{\Lambda} \beta_{1ijl} L^l . X_{ijt} + \sum_{l=1}^{\Lambda} \beta_{1jil} L^l . X_{jit} + \sum_{l=1}^{\Lambda} \Gamma_{1l} L^l . \text{Political}_{ijt} + \epsilon_{1t} \quad (1)$$

$$X_{jit} = \sum_{l=1}^{\Lambda} \beta_{2ijl} L^l . X_{ijt} + \sum_{l=1}^{\Lambda} \beta_{2jil} L^l . X_{jit} + \sum_{l=1}^{\Lambda} \Gamma_{2l} L^l . \text{Political}_{ijt} + \epsilon_{2t} \quad (2)$$

$$\text{Political}_{ijt} = \sum_{l=1}^{\Lambda} \beta_{3ijl} L^l . X_{ijt} + \sum_{l=1}^{\Lambda} \beta_{3jil} L^l . X_{jit} + \sum_{l=1}^{\Lambda} \Gamma_{3l} L^l . \text{Political}_{ijt} + \epsilon_{3t} \quad (3)$$

where Λ is the lag length of the system.

The explanation for this specification is as follows. First, though the gravity equation is not directly applicable to the question at hand in this paper, it does inform the specification. In a gravity model, both X_{ijt} and X_{jit} will be functions of nearly the same set of variables (GDP in i , GDP in j , ij -specific variables such as distance, and multilateral resistance terms to control for the prices of goods). The fact that both bilateral trade flows between i and j are functions of the same variables in the gravity model argues in favor of direct link between X_{ijt} and X_{jit} . The general persistence of aggregate variables argues in favor of modeling X_{ijt} as a function of lagged values of X_{ijt} .

Although the above-stated model allows for the endogenous determination of

trade and political relations, such a model may not be appropriate for the reason that the political relations variable available to us is categorical and not continuous. As political relations is categorical (which is to say, ordinal) and not continuous (which is to say, cardinal), there is no reason to suppose that an improvement in political relations from 2 to 4 should lead to an effect on trade equal to the effect engendered by an improvement in relations from 3 to 5. Treating the political relations variable as a continuous, endogenous variable in a VAR would necessitate such an assumption. Hence, including the political relationship variable as determined endogenously in the VAR may produce a mis-specified model. However, unexpected growth in trade between China and a partner arguably can determine the political relations between China and that partner. Ruling out entirely the causal link from trade to political relations may just as likely produce a mis-specified model.

To address this problem, we first consider a general model where we treat the political relations variable as a continuous variable and allow it to be determined endogenously by political relations in the previous period as well as lags of bilateral trade. Our goal is to see whether trade Granger causes political relations and/or vice versa. This methodology borrows from Berkowitz et al. (1998) and Whitten (2016). Although Granger causality may not imply economic causality, the exercise will serve as an indication as to whether or not we can treat political relations as exogenous. For each of 12 pairs of countries (China and each of the countries for whom we have bilateral political relations), we first test for cointegration among China's exports to the partner, the partner's exports to China, and the bilateral political relations. If a cointegrating vector exists, we perform a VAR and conduct a Granger causality test on the levels of the variables. If no cointegrating vector exists, we perform a VAR and conduct a Granger causality test on the first differences of the variables. In both cases, we select the lag length using Stata's `varsoc` command to find the lag length that minimizes the SBIC. We resort to analysis on first differences in the absence of cointegration for the following reasons. First, if 3

time series of variables are all stationary, then the series are trivially cointegrated. Second, given the graphs of the political relations (see figures 1-12), the political relation variables may possess unit root behavior as the values for several countries (e.g., Australia, Germany, Korea) grow with a near-constant trend over time. Hence, we must consider non-stationary behavior.

The results of a fully-endogenous model will indicate that political relations frequently cause trade while trade causes political relations less frequently. Given that finding, we proceed to our preferred model where we treat political relations as exogenous. We do this in 2 dynamic models: a set of 12 VARs, each corresponding to China's relation with a different country and a SUR where we consider China's relation with all countries simultaneously. The algorithm we follow in order to specify the VAR is as follows (the SUR will consist of the VAR models estimated together). First, we test for a unit root in bilateral trade flows between China and using a panel unit root method in Stata. Since we are examining only a few country pairs we rely on a Fisher-type unit root test which requires only that T approach infinity and places no assumptions on the size of the cross-section. We use the Phillips-Perron option. Rejecting a null of a unit root implies that we will estimate the VAR on the levels of trade. Failing to reject implies that we will conduct estimates on the first differences of trade. Next, we use Stata's `varsoc` command in order to select the lag length of the VAR for each country pair (China and one of her partners). We choose the lag length (between 0 and 11 months) that minimizes the SBIC. Finally, we estimate the VAR for each country pair (China and a single trading partner) multiple times, introducing the political relationship variable with a different lag length for each estimation, up to the maximum lag length of the system for the endogenous variables. From this set of results, we again select the model that minimizes the SBIC. The results table indicates the details of each VAR (levels versus differences; lag structure).

A disadvantage to estimating a VAR for each country pair separately is the

implicit assumption of no 3rd-country effects on China's bilateral trade or cross-correlation of regression errors across country pairs. E.g., an unexpected shock to Chinese-Japanese trade may be correlated with an unexpected shock to Chinese-Korean trade. To remedy this problem, we adopt a SUR model. To estimate the SUR model, we use the same specification (levels versus differences; lag structure) as is used in the VAR and assemble the equations from each bivariate VAR into a single system. This specification allows for estimates to incorporate any 3rd-country effects.

3 Data

Export data are from the IMF's Direction of Trade Statistics. We create real, monthly trade data by deflating nominal trade data using a price index from the IMF's International Financial Statistics. Not all countries have all price indices available for on a monthly basis.² As all price indices are highly correlated, we average the available values across all indices in order to impute an inflation measure for a particular country in a particular month.

Political relations data come from the Relationship between China and Major Nations Database. This Database is compiled by the Institute of Modern International Relations of Tsinghua University. On a monthly basis, researchers assign a score to each influential event concerning China and another country provided that the event was reported by *People's Daily* and the website of China's Ministry of Foreign Affairs. The higher the score, the better the bilateral relationship.³ These scores are comparable across country pairs. For example, if the China-Russia scores and China-Vietnam scores are both 3 in any given month, then China's relations with Russia are equally good (or bad) as are China's relations with Vietnam.

²We consider a CPI with all items, a harmonized CPI, a CPI of retail prices, and a PPI for all commodities.

³The database is maintained at <http://www.imir.tsinghua.edu.cn/publish/iis/7522/index.html>.

Figures 1 through 12 graph the relationships over time. Movements in the relationships generally correspond to key events in China's external relations. The relation scores for developed countries (e.g., Australia, Germany, France, Japan, the United Kingdom, the United States) generally drop in mid-1989, corresponding to the Tiananmen Massacre on June 4th. Country-specific events manifest themselves in the data as well. Australia and the PRC established formal ties in 1972.⁴ The relation score increased noticeably at this moment. Large falls in the relationship score between China and France take place in the 1990s over French plans to sell weapons to Taiwan and in 2008 over a meeting between the French president at the time, Nicolas Sarkozy, and the Dalai Lama (see Wu Dunn (1991) and Erlanger (2008)). A declining value of Sino-British relationships in the late 1960s corresponds to incidents such as riots in Hong Kong and attacks on British and Chinese diplomatic missions (see Vincent (1967) and Hopkirk (1967)). In contrast, the relation measurement improves noticeably following the Sino-British Joint Declaration regarding Hong Kong (see Bonavia (1984)). The relation measure between China and Indonesia mostly increased through the 1950s and early 1960s until it fell dramatically, coinciding with a failed Communist coup in Indonesia and the Indonesian government's decision to sever relations with China. The restoration of these relations in the late 1980s is indicated by a sharp increase in the relation score. (see Ku (2002)). The Sino-Indian war in the 1960s and India's nuclear tests in the late 1990s correspond to decreasing relation scores (See Maxwell (1972) and Nicholson (1998)). The Sino-Japanese relation increased in the 1970s and early 1980s, coinciding with formal recognition of the PRC by Japan (see MOFA (1972)). Declines in the relation score take place simultaneously with statements made regarding Taiwan as well as with conflicts between Japan and China regarding the Diaoyu or Senkaku Islands (see MOFA (2005), Ito (2010a), Ito and Hongo (2012), Hongo (2012), and Ito (2010b)). The Sino-Vietnamese war explains the sharp fall

⁴<https://goo.gl/niEXfR>, accessed on 28 September 2016

Figure 1: Australia

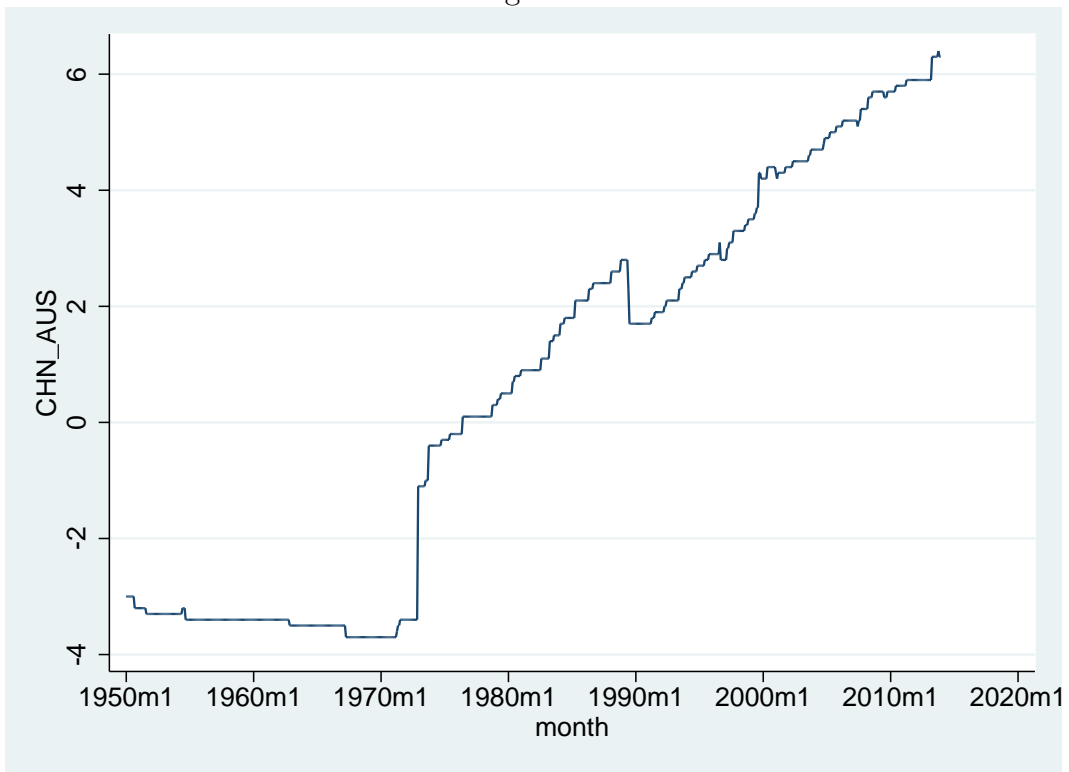


Figure 2: Germany

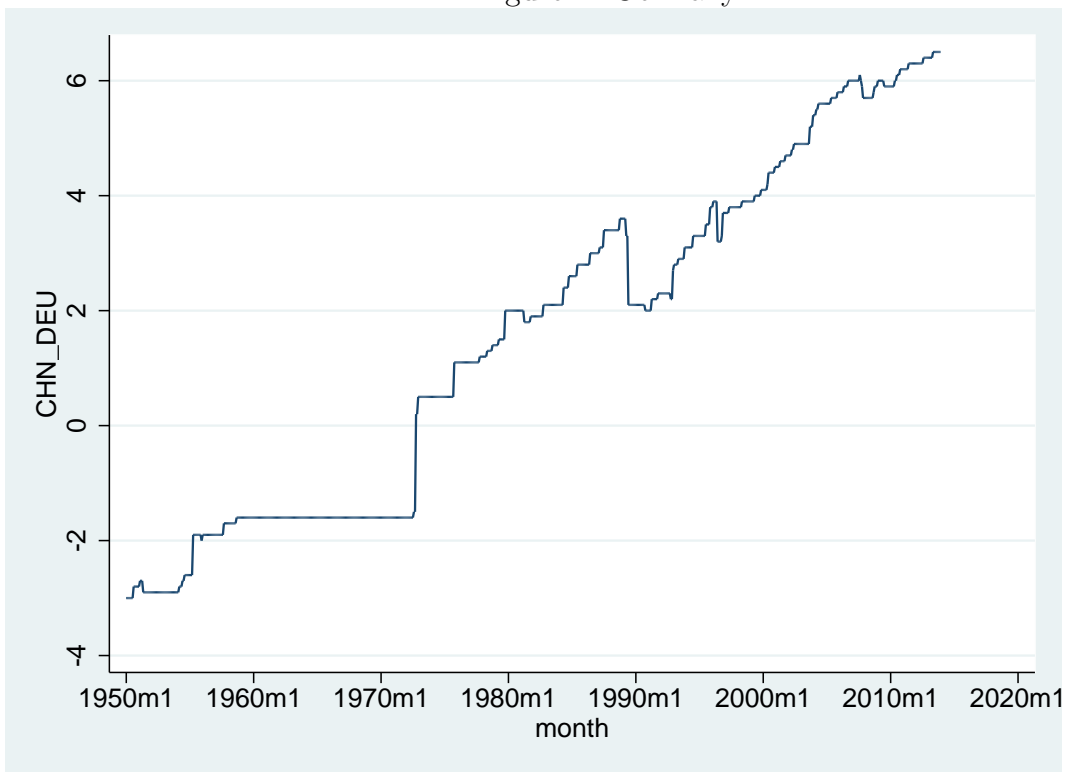


Figure 3: France

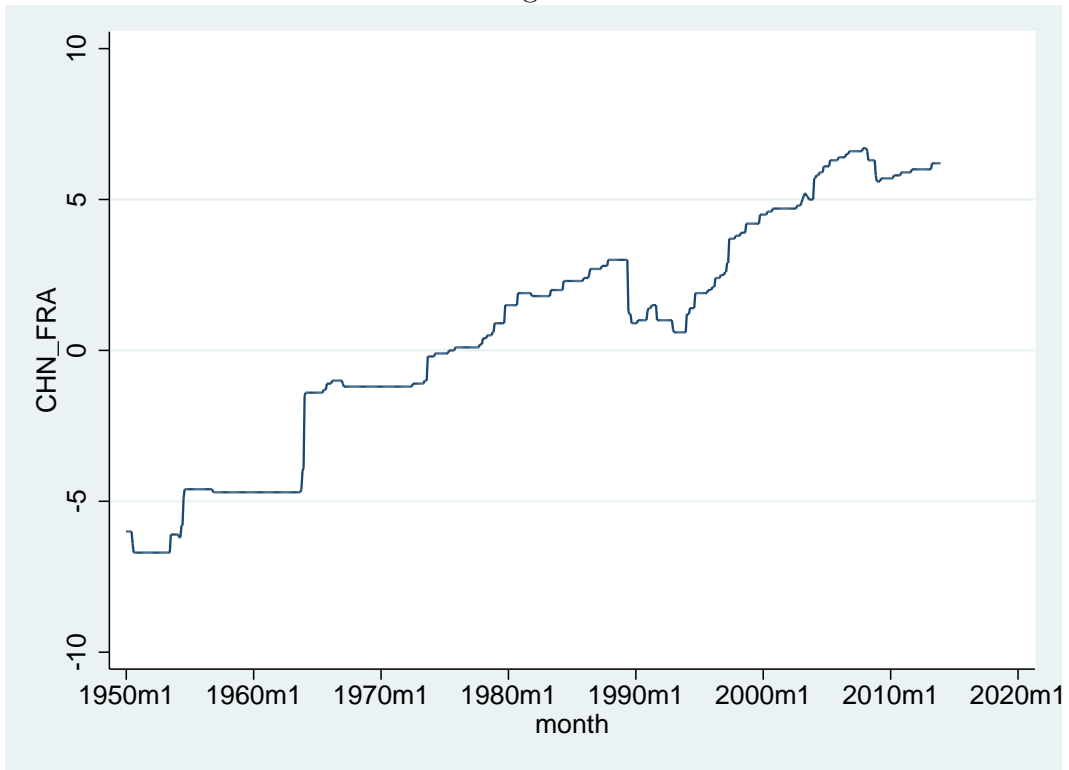


Figure 4: India

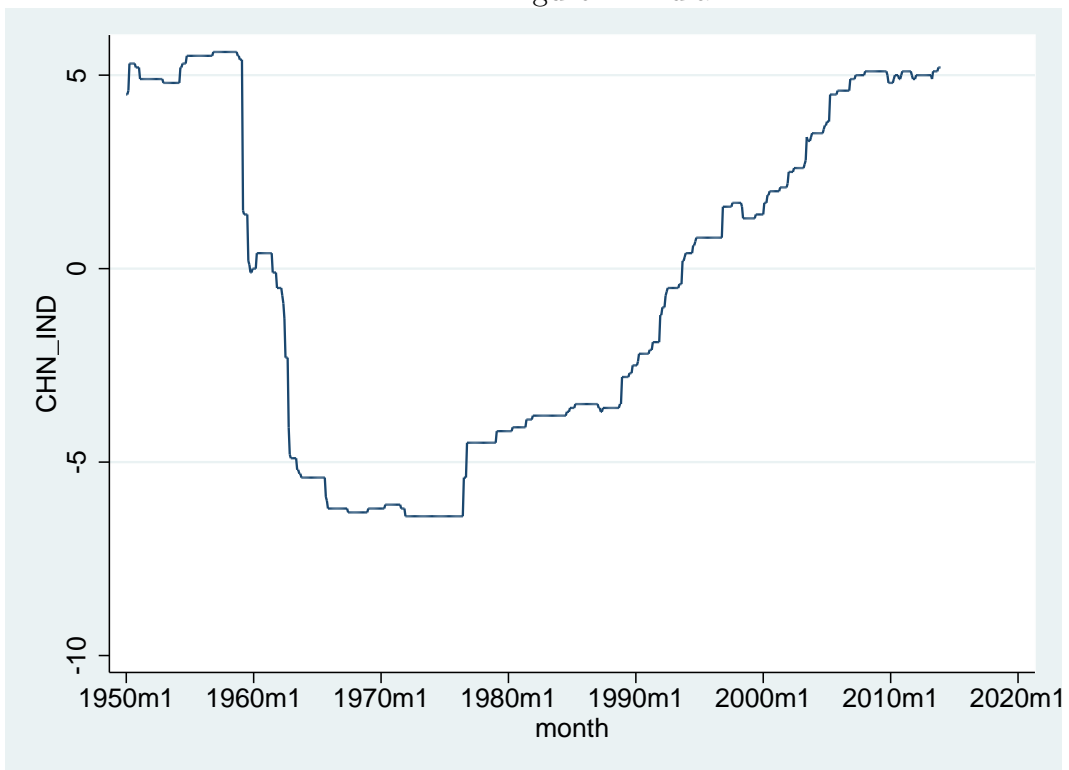


Figure 5: Indonesia

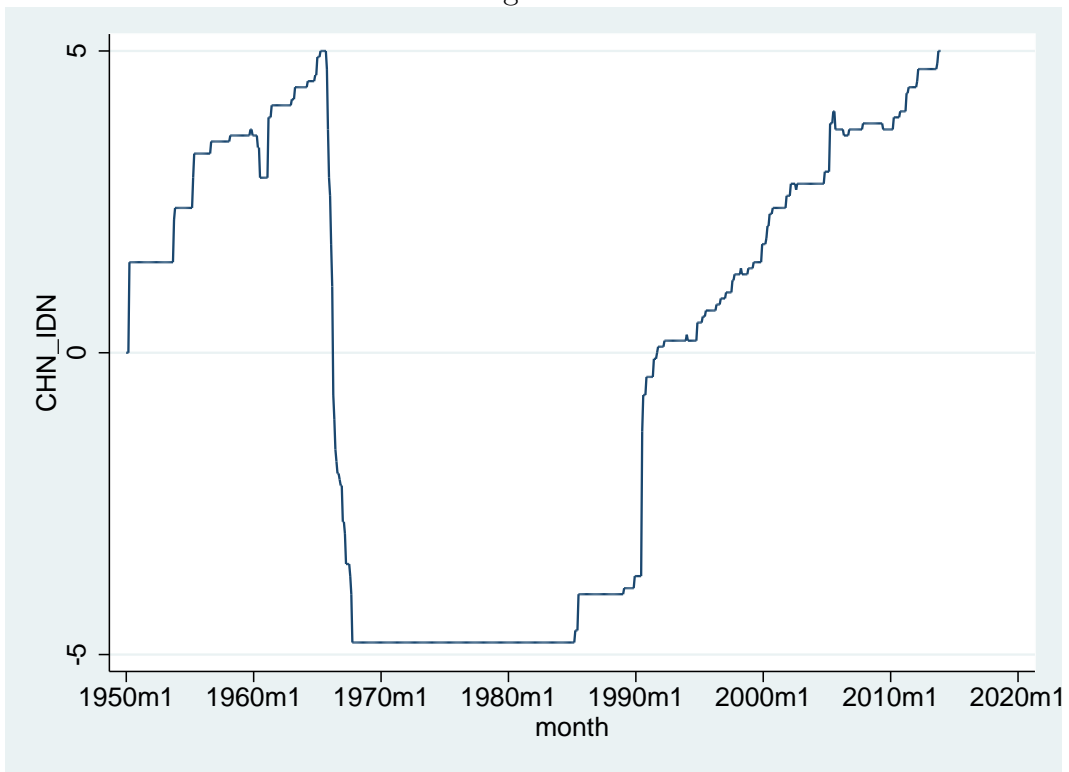


Figure 6: Japan

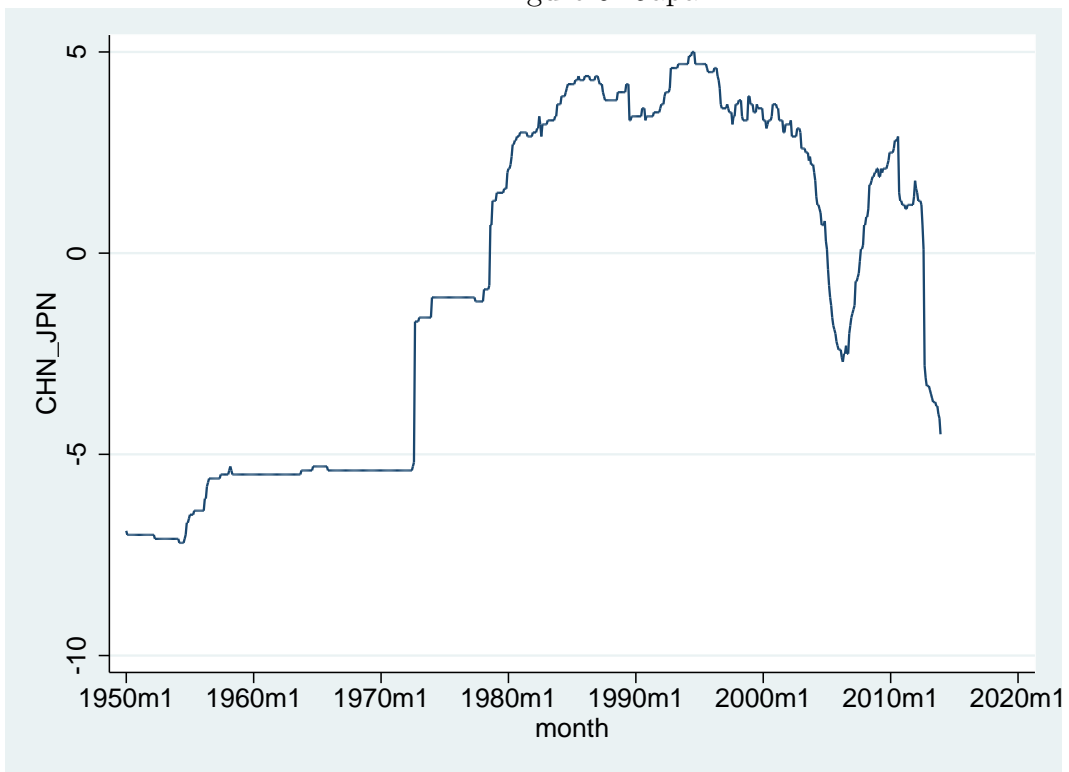


Figure 7: Korea, Republic of

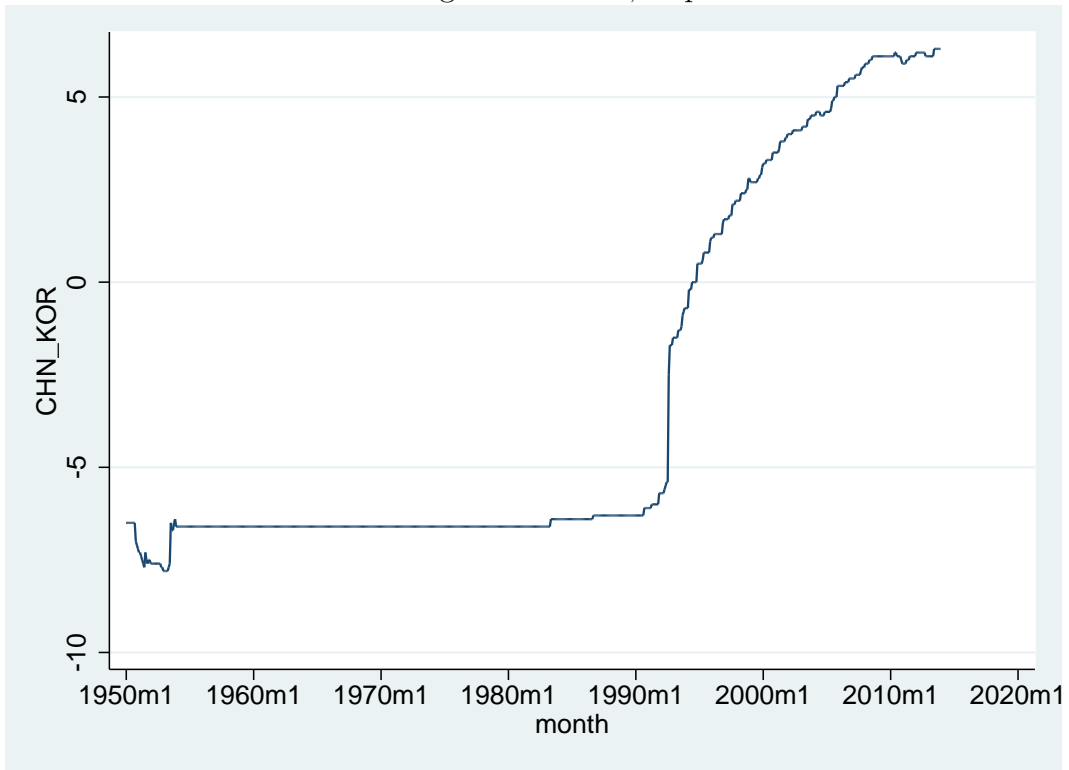


Figure 8: Pakistan

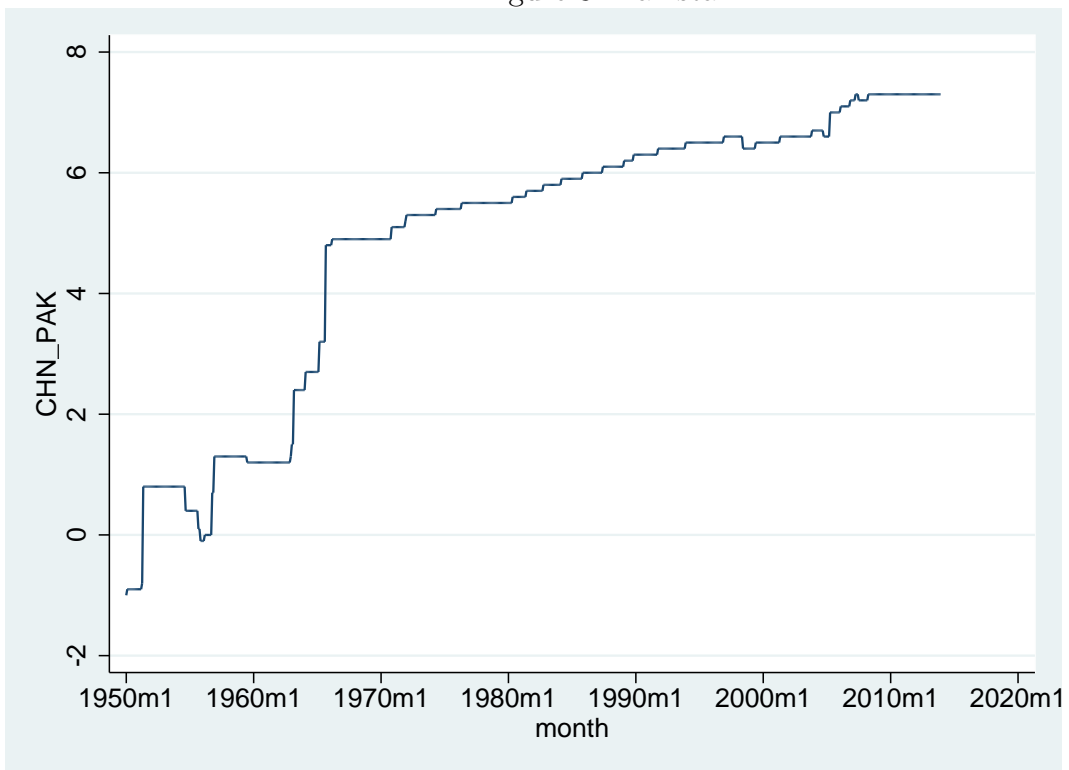


Figure 9: Russia

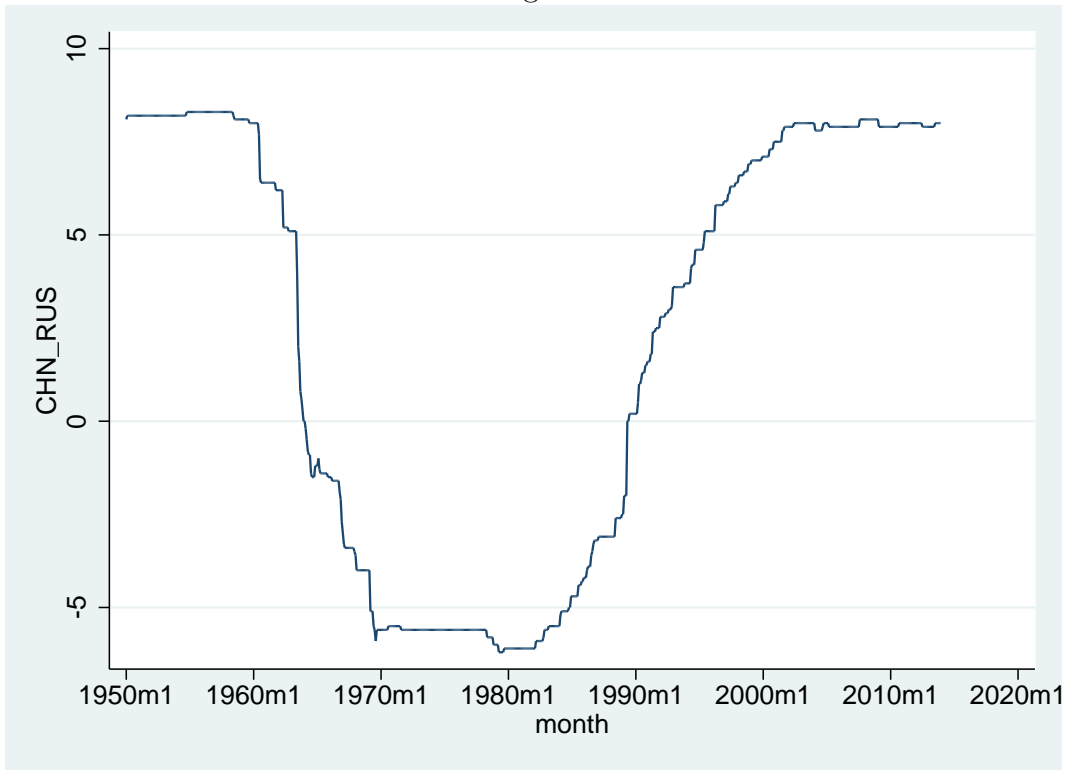


Figure 10: United Kingdom

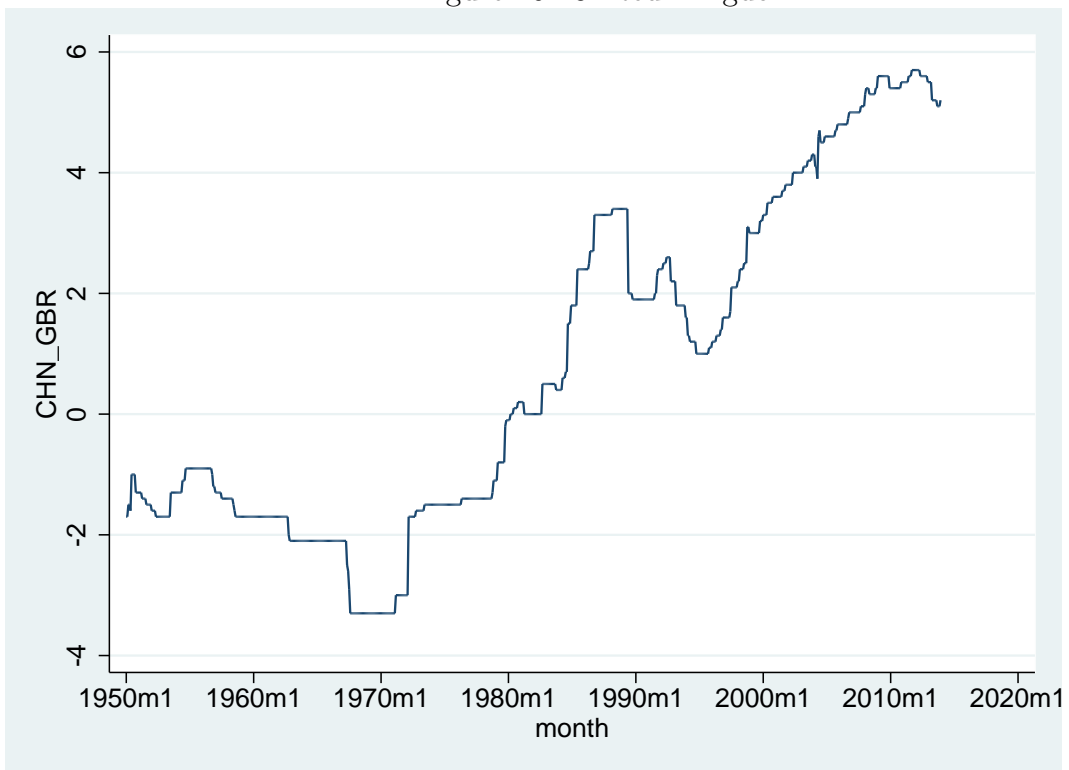


Figure 11: United States

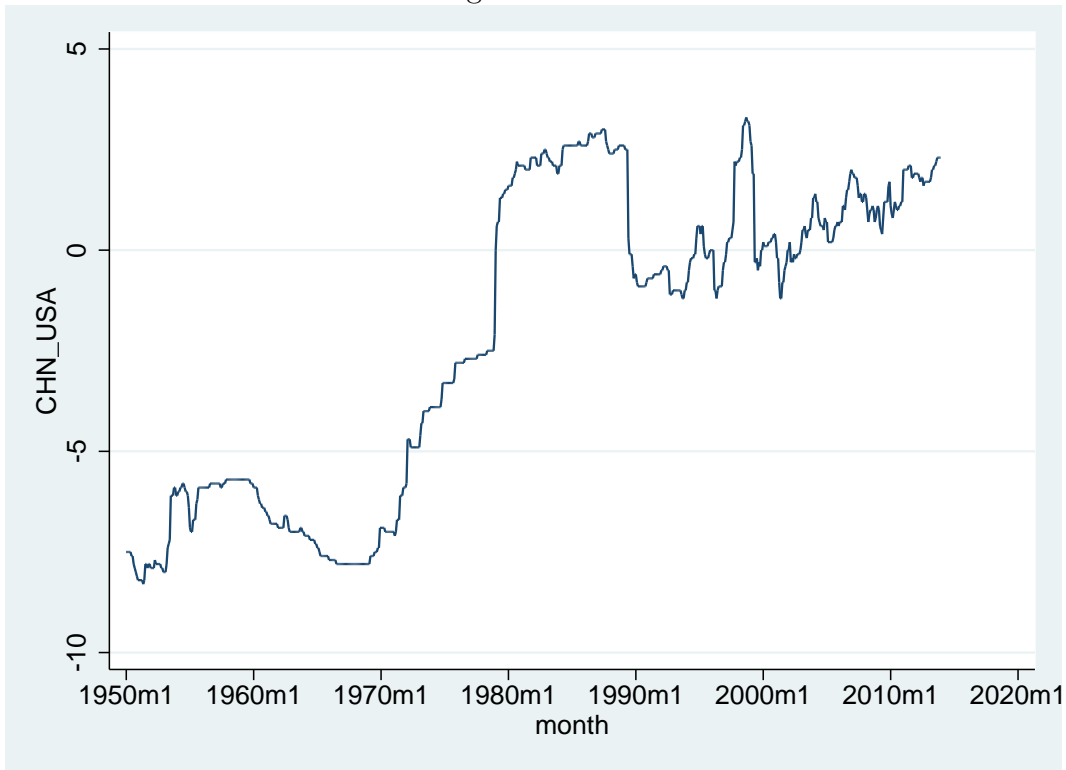
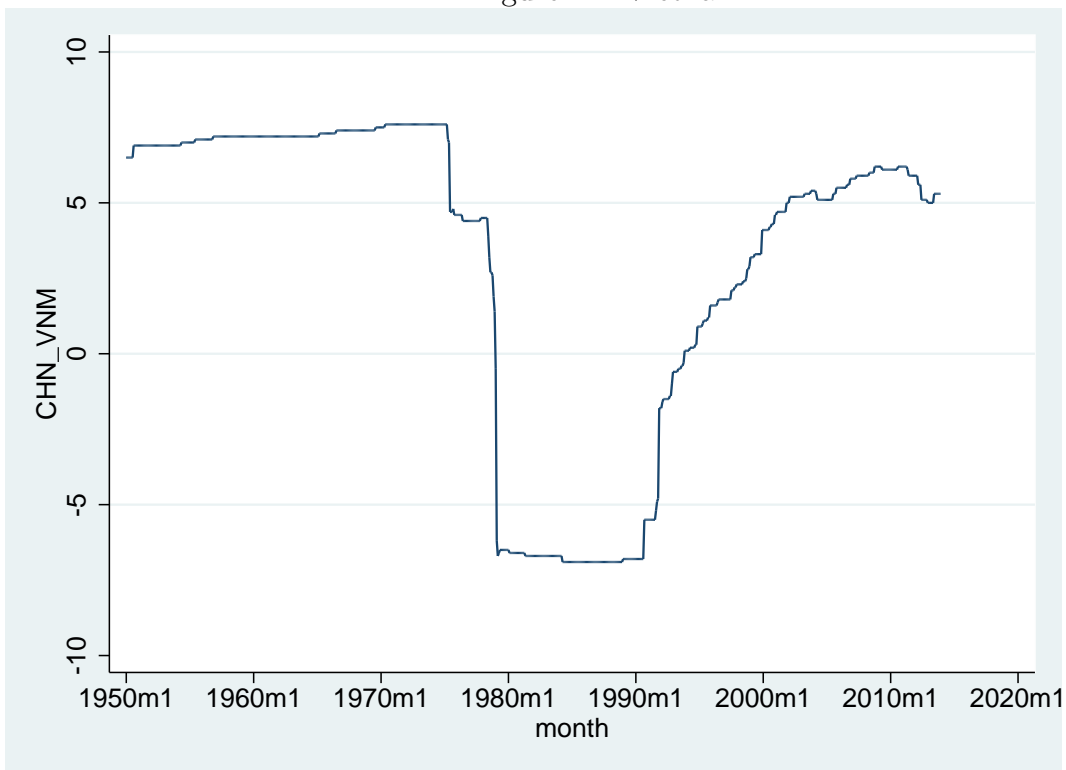


Figure 12: Vietnam



in the Chinese-Vietnamese relation score, reversed only by the normalization of relations in the early 1990s (see Womack (2006)).

4 Results

4.1 VAR: endogenous politics

This section describes the methodology used to analyze the trade and political relations when we consider both variables as continuous and both as endogenous. The results from the test are in table 1. A “+” indicates a positive and statistically significant Granger causal relationship between political relations and trade while a “-” indicates a negative and statistically significant Granger causal relationship between political relations and trade. Note that cases of relations causing trade are more numerous than are cases of trade causing relations. While there are a few instances suggesting a negative relationship between the volume of trade and the quality of political relations, more trade and better relations generally go hand-in-hand. Although Granger causality does not imply necessarily economic causality, the results in table 1 offer some support to treating political relations as exogenous. We follow that specification for the remainder of the paper.

4.2 VAR: exogenous politics

Having argued in favor of considering political relations to be exogenous, we present results from such a model. The results in tables 3 through 4 report the coefficients from the political relation variables in our preferred VAR model. The full results of the VAR and SUR models appear in tables in an accompanying file. The results in tables 3 and 4 indicate that political relationships are significant determinants of trade for 8 of the 12 countries examined (the US, Vietnam, Russia, Pakistan, India, Indonesia, the UK, and Korea). The nature of the effect on trade differs across

Table 1: Granger causality results between trade and relations

	Australia	France	Germany	India	Indonesia	Japan	Republic of Korea (South)	Pakistan	Russia	UK	USA	Vietnam
Relations cause partner exports to China	+			+				+		+	+	-
Relations cause Chinese exports to partner	+	+		+	+			+	-		+	
Partner exports to China cause relations							+					
Chinese exports to partner cause relations		+		-	+		-					

countries. For some countries, trade responds when relations are particularly good. The response is an increase in trade. Improved China-US relations tend to increase Chinese exports to the US beyond what they would have been otherwise but not US exports to China. In contrast, improved China-UK and China-Russia relations tend to boost exports from each partner country to China, but not Chinese exports to the partner country in question. Improved China-Pakistan relations improve exports in both directions.

For other countries, trade responds when relations are particularly poor. The response is a decrease in trade. Deteriorating relationships between Vietnam and China tend to reduce Vietnamese exports to China to a lower level than what they would have been. The results do not indicate a significant effect for Chinese exports to Vietnam. In contrast, poor relations between China and India tend to reduce Chinese exports to India but have no significant effect on Indian exports to China. Both directions of Chinese-Indonesian trade fall when relations between those two countries suffer. However, Chinese exports appear to be more sensitive to political relations than do Indonesian exports. The Chinese-Korean case is a unique among the results. When relations are good but not at their highest level, trade in both direction declines.

The results also indicate a pattern between the quality of relationships and the magnitude of the effect of the relationship on trade: the larger the distance between actual relations and their ideal, the greater the reduction in trade. For example, consider Chinese exports to Indonesia. When relations between China and Indonesia are between the 60th and 80th percentile, the estimated coefficient, -0.21, implies that trade is approximately only 80% of what it would be under the best relations (as $\exp(-0.21) \approx 0.81$). If relations are worse, between the 40th and 60th percentiles, then trade is a smaller fraction of what it would be under the best relations: approximately 68%. This pattern holds for other countries (e.g., Pakistan, India, the UK) though some coefficients are not significant.

For most countries, trade reacts relatively quickly to changes in political relations. For India, Indonesia, Pakistan, and Russia, a contemporaneous change in political relations affects trade, as is evidenced by the fact that the contemporaneous value of political relations enters into the regression. For Australia, France, the UK, and Vietnam, the current month’s trade is most sensitive to political relations from the previous month. Only the US and Japan have long lags from a change in political relations to a change in trade (11 months).

4.3 SUR

A limitation to the VAR specification, as was stated earlier, is that by estimating each bivariate VAR separately, we effectively suppress the possibility of correlated errors across country pairs. Estimating all of the VAR equations in a SUR model removes this possibility. See tables 5 and 6.

Table 2: Correlation between the point estimates of coefficients for VAR and SUR

Australia	France	Germany	India	Indonesia	Japan	Republic of Korea (South)	Pakistan	Russia	U.K.	U.S.	Vietnam
0.759	0.575	0.848	0.045	0.804	0.398	-0.457	0.954	0.353	-0.071	0.889	-0.439

Qualitatively, the results in the SUR estimation change little from the VAR estimation for some country pairs (Pakistan, the US, Germany) but noticeably for others (South Korea, the UK, Vietnam). Table 2 presents simple correlations between the vectors of estimated coefficients. These correlations carry no statistical meaning but serve only to show the extent to which one array of numbers “resembles” a different array of numbers. The results indicate that political relations are now significant for 10 of the 12 countries. Only Australian-Chinese and German-Chinese trade appear to be unaffected by changes in political relations. Political relations were also insignificant for these variables in the VAR analysis.

The results indicate, as they did for the VAR, a pattern between the quality

of relationships and the magnitude of the effect of the relationship on trade. As relations improve between China and a partner (e.g., India, Japan, Korea, Vietnam) not only does trade increase (or decrease less), it does so by a larger (or smaller) amount. A strange exception to this pattern concerns exports from China to the UK. When relations are between the 40th and 60th percentiles, trade increases by around 4%. Yet, when relations improve to between the 60th and 80th percentiles, trade declines by around 4%.

Overall, the finding that political relations matters is robust to estimation technique.

5 Conclusion

In 2012, Nobel Peace Prize was awarded to the European Union (EU) “for over six decades contributed to the advancement of peace and reconciliation, democracy and human rights in Europe.”⁵ In fact, the main practical function of EU has been promoting international trade among its member countries. With a greater volume of international trade and a greater degree of international economic dependence, countries tend to be more restrained in international conflicts. In turn, under a more peaceful and harmonious environment, consumers tend to have less “home bias” in their purchases of goods and services.

The EU’s achievements belong to a larger set of greater international, political and economic integration witnessed in the post-World War II era. Though political and economic integration may be thought as mutually re-enforcing, recent events (e.g., Brexit, the 2016 US Presidential Elections) have caused people to think otherwise. China’s growing influence on the world has had profound effects on the political and economic decisions of her partner countries. This paper demonstrates

⁵“The Nobel Peace Prize 2012 to the European Union (EU) - Press Release.” Nobel Media AB 2014. Web. 24 Oct 2016. http://www.nobelprize.org/nobel_prizes/peace/laureates/2012/press.html

that regardless of the severity of the conflict (displeasure at meetings with the Dalai Lama; saber-rattling over disputed territory), political relations affect trade between China and her partners. Warmer relations lead to larger increases (or smaller decreases) in trade while cooler relations have the opposite effect. This finding is robust to estimation methods (pair-specific VARs; a SUR system).

Table 3: Estimation results (*t*-statistics in parentheses) : VAR

Equation	Regressor	Percentile ranking of China-partner relations (1=poor, 5=excellent)	Australia	France	Germany	India	Indonesia	Japan
Exports to China from partner		1					-0.769 (-3.82)	
		2				-0.257 (-0.95)	-0.0602 (-0.46)	
		3	0.00839 (0.23)	-0.0289 (-0.37)	0.0355 (1.37)	-0.0647 (-0.28)	0.0143 (0.16)	-0.00371 (-0.15)
		4		-0.0256 (-0.37)		0.175 (1.19)	-0.0572 (-0.80)	0.0360 (1.58)
		5	0.00592 (0.11)		0.0232 (1.02)			0.0162 (0.70)
Exports from China to partner		1					-0.726 (-4.24)	
		2				-0.296 (-2.42)	-0.603 (-5.42)	
		3	-0.0153 (-0.36)	-0.0560 (-1.19)	-0.0130 (-0.55)	-0.243 (-2.37)	-0.384 (-5.01)	0.00211 (0.08)
		4		-0.0561 (-1.34)		-0.107 (-1.62)	-0.214 (-3.53)	0.0294 (1.17)
		5	-0.00897 (-0.15)		-0.00360 (-0.17)			0.0474 (1.87)
	Observations		224	392	395	382	376	395
	BIC		209.2	225.7	-289.8	1154.4	574.2	-781.5
	VAR on levels or differences		D	L	D	L	L	D
	Lag-length for China-partner relations		1	1	4	0	0	11
		

Table 4: Estimation results (*t*-statistics in parentheses) : VAR (continued)

Equation	Regressor	Percentile ranking of China-partner relations (1=poor, 5=excellent)	Republic of Korea (South)	Pakistan	Russia	UK	USA	Vietnam
Exports to China from partner		1						
		2						-0.202 (-2.30)
		3			0.193 (2.27)			
		4	-0.0992 (-2.39)	0.186 (1.67)	0.122 (1.84)	0.0805 (2.08)		
		5		0.610 (2.69)		0.0959 (1.54)	-0.0292 (-1.46)	
Exports from China to partner		1						
		2						-0.0713 (-1.22)
		3			-0.151 (-1.59)		0.103 (4.96)	
		4	-0.0885 (-1.97)	0.0701 (1.26)	-0.0174 (-0.23)	-0.0214 (-0.48)		
		5		0.700 (6.13)		0.0416 (0.58)	-0.00571 (-0.30)	
	Observations		266	383	263	392	395	226
	BIC		-491.9	1449.0	39.37	334.1	-351.1	193.8
	VAR on levels or differences		L	L	L	L	D	L
	Lag-length for China-partner relations		3	0	0	1	11	1
		

Table 5: Estimation results (t -statistics in parentheses) : SUR

Equation	Regressor	Percentile ranking of China-partner relations (1=poor, 5=excellent)	Australia	France	Germany	India	Indonesia	Japan
Exports to China from partner		1						
		2			-0.118 (-2.15)			
		3	1.871 (3.09)	-0.734 (-5.65)	-0.115 (-2.62)	10.93 (6.87)		
		4	2.158 (3.25)			12.28 (6.86)	-0.962 (-3.47)	-0.129 (-1.44)
		5	2.197		-0.0154			
Exports from China to partner		1						
		2			-0.109 (-2.63)			
		3	-0.0801 (-1.33)	-0.712 (-4.73)	-0.0691 (-2.09)	13.41 (6.58)		
		4	-0.0815 (-1.80)			15.03 (6.56)	-0.931 (-4.45)	0.215 (2.42)
		5			-0.0191 (-0.58)			
	Observations		59	59	59	59	59	59
	VAR on levels or differences		L	L	D	L	L	L
	Lag-length for China-partner relations		0	0	11	3	0	0

Table 6: Estimation results (*t*-statistics in parentheses) : SUR (continued)

Equation	Regressor	Percentile ranking of China-partner relations (1=poor, 5=excellent)	Republic of Korea (South)	Pakistan	Russia	UK	USA	Vietnam
Exports to China from partner		1						
		2						17.07 (5.33)
		3	10.93 (6.87)			-0.702 (-1.76)	-0.0363 (-1.57)	20.27 (5.28)
		4	12.28 (6.86)	-0.962 (-3.47)	-0.129 (-1.44)		0.026 (1.35)	
		5						
Exports from China to partner		1						
		2						5.51 (3.64)
		3	13.41 (6.58)			-0.983 (-3.75)	0.043 (2.15)	6.534 (3.6)
		4	15.03 (6.56)	-0.931 (-4.45)	0.215 (2.42)		-0.0462 (-2.78)	
		5						
	Observations		59	59	59	59	59	59
	VAR on levels or differences		L	L	L	L	D	L
	Lag length for China-partner relations		3	0	0	1	11	1

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