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THE INFLUENCE OF ECONOMICS AND POLITICS ON THE STRUCTURE OF WORLD TRADE AND INVESTMENT FLOWS

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The influence of economics and politics on the structure of world trade and investment flows

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Abstract

The Asia Pacific region, and especially East Asia, has experienced rapid economic integration without the 'hard politics' of legally binding economic and political treaties, unlike Europe where integration has been institution-led. The 'soft politics' and market-led integration in East Asia set against a background of political tensions and rivalries in key relationships in the region. The paper measures trade and investment performance in the world economy. This allows comparison of bilateral and regional trade and investment flows. A measure of the effect of political distance on both trade and investment flows is also defined. The growth of China-Japan trade and investment, despite political distance between the two countries is discussed to highlight and elaborate on key findings. The analysis leads to five conclusions. Multilateral institutions are important in reducing economic and political distance between trading partners. While political relations do affect economic relations, their effect is not important across the vast majority of trading relationships. The important effects of political relations on economic relations come in today's world via international investment rather than through international trade. East Asian economies are leading trade and economic integration, measured in terms of their trade and investment performance and their impact on global trade and investment frontiers. Finally, of all the major regional groupings, APEC and ASEAN stand out as arrangements in which there has been no trade diversion, unlike the other formal regional groupings such as NAFTA and the EU in which trade diversion is measurable. The paper finds an 'APEC effect', explains how economics can dominate politics in international economic relations and recommends priority to strengthening regional and international investment regimes to help ameliorate the likely effects of politics on economic integration in the future.

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CONTENTS

Background

The Asia Pacific region, and in particular the East Asia region, have seen rapid growth and economic integration at an unprecedented speed and depth. The only other region with comparably deep links is Europe. Asia is characterised by market-driven integration and regionalisation, whereas in Europe integration was institution-led (Drysdale, 1988; ADB, 2008). In Europe economic integration followed political cooperation. This contrasts starkly with East Asia where economic integration was the product of market forces, despite political tensions and often absent the facilitation of formal diplomatic ties.

Market-led integration in Asia and the Pacific has been well documented with APEC coming to play a significant role in trade and investment liberalisation and facilitation.

The regional rivalries and political competition have meant that the development, and the robustness of, regional institutions have lagged and economic cooperation institutions have been limited. Despite this, falling border barriers to trade and increasingly open investment regimes have led to high trade shares and, in recent decades, the formation of production networks and deep specialisation in regional production. The influence of political distance on the structure and scale of bilateral and regional trade relationships and FDI over time is of particular interest in the context of these developments.

This paper has two aims. First, it looks at the role of political distance, or the political closeness between countries, on trade and investment worldwide and assesses whether East Asian integration has been hampered by political distance among economies in the region. The paper also compares the performance of trade and investment between different regions. In doing so, special attention is played to the role of APEC. APEC is not a trade or economic arrangement of the traditional kind among the economies in the Asia Pacific region: thus far it has involved no preferential trade or other measures among its members but has been ordered around the idea of 'open regionalism' and the principles of non-discrimination in international economic dealings. APEC is built on the 'soft politics' of regional economic cooperation not the 'hard politics' of legally binding economic and political treaties. An important question is whether this mode of economic cooperation has had any effect in boosting regional trade and economic integration and whether that effect differs from the effect of other types of regional arrangement on international economic integration. That is why measuring the impact that APEC has had on increasing trade and investment in the region and also between the Asia Pacific region and the rest of the world is of special interest in this analysis.

The next section sets out the concept of trade and investment frontiers as a means by which to assess the influence of political and other factors on the realisation on trade potential. Then the models and data that are used to assess trade and investment performance are introduced, along with results of the analysis. After estimating performance, the following

section explains the performance around discussion of the important resistances to international economic integration. The case of the Japan-China bilateral relationship is then introduced to illustrate some of the findings and to show how political distance has been overcome in East Asia. The conclusion draws out the five main findings and remarks on their implications for policy.

Measuring trade and investment performance

In order to assess the performance of trade and FDI between regions, performance is benchmarked by estimating trade and investment frontiers. Using a gravity model of trade and a spatial FDI model, and applying stochastic frontier analysis, frontiers based on the determinants of trade and FDI are estimated. Those frontiers are defined by the best trade and FDI 'technologies' worldwide (Drysdale, Kalirajan and Huang, 2000; Armstrong, 2007; Armstrong, 2009).

The performance of trade and FDI relationships can also be thought of as a measure of economic distance where, since geographic distance is already controlled for, high performance shows low resistance to goods or capital flows between countries. The most liberal and free flowing trade and investment relationships are characterised by low economic distance.

Both the trade frontier and the FDI frontier are estimated using the core variables of scale (the GDPs of partner economies), distance, complementarity and multilateral resistances. Unlike other gravity models of trade and FDI models, variables such as free trade agreements (FTAs) or regional trade agreements (RTAs), measures of risk, tariff and other non tariff barrier (NTB) variables, and language are not included in the model to estimate the frontier and hence trade and investment performance, but are used to explain that performance. The logic is that if a trade flow is high relative to its potential, as defined by the frontier, its performance is high given the size of the trading countries, the distance they are apart, the complementarities of their economic structures and controlling for the influence of third countries. What explains the high levels of trade and investment performance, then, may be similarity of language, membership of the same FTA or RTA, low border barriers, and other factors.

To that list of possible explanatory variables of performance, the role of political distance is added. Political distance is a measure of how 'close' two countries are politically, or geopolitically, and how well they get along. Two countries which are political and security allies can be described as being close in terms of political distance whereas two nations that are political rivals, can be described as politically distant. Between these two extremes there is a wide range of degrees of closeness and distance in the relationships between countries. That will constrain or encourage interaction between their traders and investors. There is an established literature that examines how politics affects trade (see Hirschman, 1945 and

Polacheck, 1980). A widening of political distance can increase uncertainty and lower economic exchange between a pair of countries.

There is ample evidence of the link between the political relationships and trade (Mansfield and Pollins, 2001; Mansfield and Pollins, 2003) and recognition that the direction of causality and the lag times of the effect of political events on economic relations depend on the character of the bilateral relationship. There is no comparable literature for FDI, but it can be presumed that causality will run both ways and there will be lag length issues that depend on the particular investment partners in analysing the effect of political factors on investment flows in the same way as there is in analysing trade flows. Country pairs will not necessarily hold a linear relationship over time in any analysis on FDI or trade.

In analysing resistances to FDI, the literature has included measures of host country domestic political risk in studies, such as in done in Baltagi et al. (2007). The multinational enterprise (MNE) international business literature focuses on differences between countries and the implications for the modes of entry into markets by MNEs. Resistances have a significant impact on the scale and structure of FDI (Ghemawat, 2007).

Trust and measures of cultural similarity, determined by religion, history of conflict and ethnic similarities, are all factors that have been identified as having an effect on economic linkages, including FDI (Guiso et al., 2004; Ghemawat, 2007). These resistances have also been termed cultural distance in the FDI literature and used to describe the uncertainty that a firm faces in investing in another country (Erramilli and D'Souza, 1995).

Fewer resources are likely to be committed in a trading relationship than are involved in directly setting up a plant in a foreign country, such as is involved in an investment relationship. Trade is therefore hypothesised to be less sensitive to increases in political uncertainty than investment. In general it would be reasonable to assume FDI is more affected by political developments than trade which is conducted more at arms-length. A widening of political distance between two countries would be expected to affect FDI more than trade.

Trade and FDI frontiers

Trade performance

The trade frontier is estimated using the following model.

$$\ln x_{ijt} = \ln \beta_0 + \beta_1 \ln y_{it} + \beta_2 \ln y_{jt} + \beta_3 \ln rDist_{ij} + \beta_4 Border_{ij} + \beta_5 COMP_{ijt} + v_{ijt} - u_{ijt} \quad (1)$$

Table 1 includes detail about these variables and the sources of data for their measurement.

Table 1 Variable description and data sources

Variable	Description	Data source	Notes
x_{ijt}	trade from *i* to *j* at time *t*	IMF's *Direction of Trade Statistics* (various years) and gaps in the data are filled in from the International Economic Databank (IEDB)	Calculated from imports instead of exports for accuracy*.
y_{it}	Country *i*'s size (GDP) at time *t*	*World Development Indicators* (WDI) and at current prices	
$rDist_{ij}$	Relative distance from *i* to *j*	Great circle distance between capital cities of each country was collected from the Chemical Ecology of Insects website: http://www.chemical-ecology.net/	$rDist_{ij} = \frac{Dist_{ij}}{\sqrt{\sum_{k \neq j} Dist_{ik}} \sqrt{\sum_{k \neq i} Dist_{jk}}}$
$Border_{ij}$	Variable that takes on the value of one if *i* and *j* share a common land border, zero otherwise.		
$COMP_{ijt}$	Complementarity index of *i*'s trade with *j* at time *t*.	International Economic Databank (IEDB), Australian National University	$C_{ij} = \sum_k \left(\frac{X_i^k}{X_i} \cdot \frac{M_w - M_i}{M_w^k - M_i^k} \cdot \frac{M_j^k}{M_j} \right)$ [see below]

Notes: * Importers have less incentive to under-report and imports are a more accurate reflection of trade flow values than reported exports. The exception is European trade where there is tax incentive to under report imports due to the value added tax structure but import flows were used for consistency. This is common practice.

The complementarity index used here is from Drysdale (1967) and Drysdale and Garnaut (1982):

$$C_{ij} = \sum_k \left(\frac{X_i^k}{X_i} \cdot \frac{M_w - M_i}{M_w^k - M_i^k} \cdot \frac{M_j^k}{M_j} \right)$$

where X is exports, M is imports, subscripts denote country (i, j and world) and superscript k implies commodity k. The index is calculated at the three digit level from the Australian National University's International Economic Databank[1] for all combinations of countries and years. The index captures the complementarity of trade structures between countries and the higher the index implies a higher degree of complementarity.

v_{ijt} is an independently and identically distributed normal variable with mean zero and variance σ_v^2 and u_{ijt} is an independent and identically distributed non-negative variable which usually has a half normal, truncated normal or exponential distribution (Kumbhakar and Lovell, 2000).

The disturbance term v_{ijt} accounts for random variation in trade similar to the disturbance term in the standard OLS model. The non-negative (or one sided) disturbance term, u_{ijt},

[1] http://iedb.anu.edu.au/

measures the difference between potential trade and actual trade. More precisely, it is the amount of trade that falls short of the frontier for trade from country *i* to *j* at time *t*.[2]

The trade model is estimated for an unbalanced panel between 1980 and 2006. The data includes a representative sample of world trade with the bilateral trade flows of 65 countries by 65 countries. The countries are listed in the Appendix. Some bilateral flows are missing for some years due to data availability but given the large numbers of observations, the data represent a relatively complete and balanced panel.

Table 1 shows results for ordinary least squares estimation in column (1). Column (2) is the model estimated over the time-invariant country pair dimension and Column (3) is the same model as Column (2) with additional time dummy variables which are not presented in the results (to save space).

All coefficients are statistically significant at the 1 per cent level and the signs are as would be expected. The larger two countries are, the more they trade and the further they are apart, the less they trade. A complementary trade structure with a partner helps explain an increase in trade as does sharing a border. The OLS coefficients on the GDP variables are unity which is a result consistent with the gravity model literature.

[2] For a detailed technical description of the estimation procedure see Coelli (1996) and Kumbhakar and Lovell (2000).

Table 2 OLS and MLE stochastic frontier estimation results

	(1) OLS	(2) Frontier country pair	(3) Frontier w country pair & time dummies
Constant	-33.37***	-18.49***	-20.39***
	(0.2303)	(0.1423)	(0.1552)
$lnGDP_{it}$	0.99***	0.70***	0.74***
	(0.0066)	(0.0041)	(0.0049)
$lnGDP_{jt}$	1.00***	0.78***	0.80***
	(0.0061)	(0.0038)	(0.0039)
$rDist_{ij}$	-3.59***	-2.28***	-2.28***
	(0.0486)	(0.0278)	(0.0444)
$Comp_{ijt}$	2.48***	2.10***	2.06***
	(0.0265)	(0.0210)	(0.0331)
$Border_{ij}$	0.92***	0.98***	0.98***
	(0.0669)	(0.0403)	(0.0373)
sigma-squared	11.04	52.04***	49.01***
		(0.298)	(0.3795)
Gamma		0.976***	0.98***
Mu		-14.26	-13.85
log likelihood function	-244612	-212727	-211240
Number of observations	93382	93382	93382

Standard errors in parentheses; * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 3 presents trade performance results, or actual trade as a ratio of potential trade. High trade performance (a high ratio of actual to potential trade) is associated with low trade resistances. Conversely, low trade performance reveals high resistances to trade.

Table 3 Trade performance results, selected countries and years

Exporter	Importer	1980	1985	1990	1995	2000	2006
EU	EU	0.41	0.45	0.38	0.35	0.38	0.31
EU	World	0.38	0.39	0.31	0.30	0.30	0.27
World	EU	0.41	0.40	0.33	0.29	0.30	0.26
ASEAN	ASEAN	0.49	0.36	0.49	0.50	0.49	0.51
ASEAN	World	0.41	0.34	0.32	0.34	0.39	0.38
World	ASEAN	0.38	0.35	0.36	0.36	0.35	0.32
APEC	APEC			0.48	0.45	0.42	0.41
APEC	World			0.32	0.31	0.33	0.32
World	APEC			0.33	0.30	0.28	0.27
NAFTA	NAFTA				0.39	0.41	0.37
NAFTA	World				0.30	0.28	0.26
World	NAFTA				0.30	0.32	0.33
South Asia	South Asia	0.22	0.12	0.11	0.15	0.09	0.12
South Asia	World	0.26	0.23	0.22	0.22	0.23	0.21
World	South Asia	0.37	0.33	0.30	0.25	0.23	0.25
World	**World**	**0.37**	**0.34**	**0.30**	**0.28**	**0.30**	**0.28**
			other				
China	USA	0.29	0.42	0.48	0.53	0.55	0.58
China	World	0.32	0.30	0.32	0.34	0.38	0.45
USA	China	0.33	0.39	0.39	0.42	0.39	0.40
World	China	0.27	0.36	0.27	0.28	0.28	0.32
Japan	World	0.44	0.44	0.37	0.32	0.34	0.34
World	Japan	0.41	0.35	0.26	0.22	0.23	0.23
China	Taiwan	0	0	0	0.05	0.22	0.45
Taiwan	China	0	0	0.01	0.45	0.47	0.55
China	Japan	0.43	0.46	0.34	0.34	0.40	0.44
Japan	China	0.36	0.36	0.30	0.37	0.38	0.42
Singapore	Hong Kong	0.72	0.71	0.67	0.68	0.64	0.65
Singapore	USA	0.63	0.64	0.64	0.61	0.62	0.58
United States	Singapore	0.73	0.69	0.68	0.67	0.65	0.63
United States	Hong Kong	0.64	0.61	0.62	0.62	0.58	0.55
United States	World	0.45	0.37	0.36	0.36	0.34	0.30
World	USA	0.41	0.39	0.35	0.33	0.35	0.34

Open economies that are close to large markets, such as are Singapore and Hong Kong, perform better as expected and it is their trade characteristics, or trade technologies, that define the frontier. The world average trade performance is declining over time. Given the reductions in transportation and communications costs and the reduction of barriers to

trade, both at the border and beyond the border, reflected in rapidly increasing world trade values, one might expect mean trade performance (realisation of potential) to be increasing. The nature of stochastic frontier analysis means that the more variation there is in trade performance, given the core determinants of trade, the lower the average performance is likely to be. The best performers push the elasticities higher and the frontier shifts outwards (an improvement in 'trade technology') meaning the average trade relationship has to keep up with the best performers for average to grow. This observation is consistent with the findings of Dowrick and DeLong (2003) who show that in the second half of the 20th century there has been divergence in growth between those countries that have been at the global table and those that have not, and that there has been convergence among those economies that have opened their economies.

The increased variation in the sample over time and the outlier bilateral trade flows that push the frontier outward means that most countries see performance fall over time as the increased trade does not keep up with the frontier. There are, however, countries with average performance increasing over time. For average export performance, China, Costa Rica, India, Indonesia, Malaysia, Malta, Thailand and Vietnam all show a positive trend. For imports, Chile, Ghana, Hong Kong, Hungary, Malaysia, Mexico, Turkey and Vietnam show a positive trend. Half of these are found in East Asia with no other regional clustering.

Intra-ASEAN trade is consistently at around 50 per cent of potential trade, and appears to be the most trade integrated region, consistent with findings by Armstrong, Drysdale and Kalirajan (2008). ASEAN's trade with the rest of the world (both imports at around 35 per cent and exports at around 37 per cent) realise more of their trade potential with the rest of the world than any other region. APEC and ASEAN members show less resistance to trade than EU, North American and especially South Asian countries, both in their inter-regional as well as their intra-regional trade.

A case of interest in this setting is China-Taiwan trade. Taiwan's exports to China perform remarkably well throughout the entire period under study, despite the absence of diplomatic and direct trade links but China's exports to Taiwan were severely repressed until both economies' accession to the WTO (Table 3). Taiwan's imports from China still under-perform compared with Taiwan's exports to China. This is importantly because of the Taiwanese embargoes that remain on imports from the mainland for political reasons, even after accession to the WTO (Drysdale and Xu, 2007).

East Asian trade, it emerges, has been at the forefront of gains increased trade efficiency through better utilisation of trade potential and, by implication, pushing out the global trade frontier.

FDI performance

FDI models commonly use gravity model variables to explain FDI since both trade and FDI have similar determinants. The latest models have succeeded in explaining FDI better by recognising that FDI decisions are made differently from decisions to trade. Some MNEs use FDI to avoid trade barriers and sell to the market in the host nation (horizontal FDI) while others take advantage of cheaper factor prices to produce in a host nation and then export that good (vertical FDI). There is also a more complex form of FDI where a source country manages the knowledge-intensive input in production and uses a number of FDI destinations in which there are different relative factor prices to produce parts and components which are then traded to a third country (knowledge capital or complex vertical FDI). Conventional gravity models cannot capture these different forms of FDI.

A MNE's decision to invest in one country is dependent on the endowments in its country of origin, factors in the potential host country and also neighbouring countries that could act as both a substitute or complement for FDI. Multilateral resistances, in models such as that of Baltaig et al. (2007), are captured differently in investment models from the case of trade gravity models and include inverse distance weighted averages of all third country effects for all determinants. Baltagi et al. and other FDI models of MNE behaviour[3] have shown the importance of including scale, distance, relative factor endowments and multilateral effects in explaining FDI. Those determinants are chosen from models derived from firm level behaviour and confirmed through empirical results that out-perform studies using only gravity model variables.

Many studies model a two factor world, some with skilled and unskilled labour (see for example Davis (2008)) and others with capital and labour. Results in studies such as Egger and Pfaffermayer (2004), Baltagi et al. (2007) and Dee (2007) show that a three factor world with skilled labour (or human capital), unskilled labour and physical capital, gives a better explanation of FDI flows. This study builds on the models of Baltagi et al. (2007) and Dee (2007). The model used here to estimate an investment frontier differs from Baltagi et al. in two important ways. First, Baltagi et al. do not include a measure of distance as they implicitly control for distance in the spatially correlated error term. They do this by using the Gauss-Markov estimator to control for spatially correlated error terms. Spatially correlated error terms capture the fact that a shock to one country affects other countries, and affects countries which are closest the most.

This study follows Dee (2007) in its treatment of potentially spatially correlated error terms deterministically with the inclusion of an FTA variable and a weighted FTA variable. The FTA variable would usually be included in the second stage of explaining the performance results but is used in the first stage where performance is estimated in order to control for spatially correlated error terms. Relative distance and the FTA variables are used in this study to

[3] See Blonigen (2005) for a review.

estimate the frontier and deterministically account for spatially correlated error terms. The different nature of trade and FDI, with different modes of FDI entry into a country or market, has meant different modelling derivations and therefore different approaches to controlling for multilateral resistances.

Following both Dee and Baltagi et al., the model can account for different modes of FDI as well as FDI determined by different factors. The difference from Dee's model here is that it does not include a risk variable and that a non-negative disturbance term is included that makes it a stochastic frontier model.

2) $$\mathbf{F}_t = \beta_0 + \beta_1\mathbf{dist} + \beta_2\mathbf{G}_t + \beta_3\mathbf{S}_t + \beta_4\mathbf{k}_t + \beta_5\mathbf{h}_t + \beta_6\mathbf{l}_t + \beta_7\mathbf{\Gamma}_t + \beta_8\mathbf{\Theta}_t + \beta_9\mathbf{FTA}_t + \beta_{10}\mathbf{WG}_t + \beta_{11}\mathbf{WS}_t + \beta_{12}\mathbf{Wk}_t + \beta_{13}\mathbf{Wh}_t + \beta_{14}\mathbf{Wl}_t + \beta_{15}\mathbf{W\Gamma}_t + \beta_{16}\mathbf{W\Theta}_t + \beta_{17}\mathbf{WR}_t + \beta_{18}\mathbf{WFTA}_t + \mathbf{v}_t + \mathbf{u}_t$$

Where

$\mathbf{F}_t$ is the log of FDI (for FDI stock – FDI flows are also tested)

dist is the log of the great circle distance between capital cities of *d* and *i*.

$\mathbf{G}_t$ is the log of the sum of country *d* and country *i* GDPs: $\ln(GDP_d + GDP_i)$

$\mathbf{S}_t$ is a measure of GDP similarity: $(1 - s_d^2 - s_i^2)$

where $s_d = GDP_d /(GDP_d + GDP_i)$ and $s_i = GDP_i /(GDP_d + GDP_i)$

$\mathbf{k}_t$ is the log of the ratio of source country to destination country capital stock: $\ln(K_d/K_i)$

$\mathbf{h}_t$ is the log of the ratio of source country to destination country human capital: $\ln(H_d/H_i)$

$\mathbf{l}_t$ is the log of the ratio of source country to destination country unskilled labour: $\ln(L_d/L_i)$

$\mathbf{\Gamma}_t$ is an interaction term between $\mathbf{G}_t$ and $\mathbf{k}_t$: $\mathbf{G}_t\,\mathbf{k}_t$

$\mathbf{\Theta}_t$ is an interaction term between distance and the difference in capital and labour ratios:

$\mathbf{dis}(\mathbf{k}_t - \mathbf{l}_t)$

$\mathbf{FTA}_t$ is a variable that takes the value of one if country d and i have a free trade agreement in force in year t.

W is a measure of multilateral effects interacted with each term. $\mathbf{WG}_t$, for example, is the inverse distance weighted average of $\mathbf{G}_t$ between the source country and all third country markets.

$\mathbf{v}_t$ is an independently and identically distributed normal residual term that captures the usual model disturbance from measurement error and other shocks that are no associated with resistances to FDI.

$\mathbf{u}_t$ is an independently and identically distributed non-negative variable that captures the resistances to FDI.

FDI source countries in this analysis are the United States, Japan, Canada, Germany, France, the United Kingdom and the Netherlands comprising seven of the largest eight FDI sources globally[4]. The share of world FDI covered by this set of countries ranges from half to 70 per cent depending on the year[5]. These source countries were chosen to minimise the missing data problems and to make the panel as balanced as possible. There are ninety recipient countries and they are listed in the Appendix. FDI stocks are used as is common practice and FDI data are drawn from the OECD which has FDI data reported by OECD countries to OECD and non-OECD member countries. The panel is highly unbalanced from 1982 to 2006. Dummy variables for time are included and results for OLS and the frontier using maximum likelihood estimation are presented.

GDP at purchasing power parity is used and is from the *World Development Indicators* along with labour force and gross fixed capital formation data. Capital stock is calculated from the perpetual inventory method from Leamer (1984) and explained in the Appendix. The human capital data, from the International Labour Organisation and various national statistical agencies, is the absolute number of graduates from tertiary institutions, such as universities, in that country. The sum of the unskilled labour population and the population with a tertiary qualification is equal to the total labour force.

Both trade and FDI frontier models can be estimated using any one of the following programs: GAUSS, STATA, LIMDEP, and FRONTIER 4.1.

Most variables are statistically significant at a high degree of significance in explaining the stock of FDI. All bilateral variables are statistically significant. The similar Baltagi et al. (2007) specification and even closer specification of Dee (2007) did not have as many variables with statistical significance as do the results in Table 4. As was the case in Baltagi et al. (2007) the multilateral variables (those weighted by inverse distance) are jointly significant, confirming their importance in explaining FDI. A simple F test on the multilateral variables in the OLS model confirms joint statistical significance and a likelihood ratio test comes to the same conclusion. The signs and the magnitudes of the coefficient estimates are all expected from previous studies such as Dee (2007).

[4] Switzerland ranks higher than the Netherlands but is not used as the coverage of recipient countries was not as wide ranging as Dutch FDI.
[5] Source: OECD Stata and UNCTAD FDI data.

Table 4 Stochastic frontier outward FDI determinants

	OLS		Frontier (MLE)	
	(1)	(2) with 3rd country	(3)	(4) with 3rd country
Log of distance	-0.77***	-0.82***	-0.78***	-0.83***
	(0.05)	(0.05)	(0.05)	(0.05)
Bilateral GDPs (g)	2.28***	2.24***	2.19***	2.35***
	(0.06)	(0.11)	(0.05)	(0.05)
GDP similarity (s)	4.44***	3.97***	4.43***	4.11***
	(0.3)	(0.31)	(0.28)	(0.29)
Rel. capital ratio (k)	2.6***	2.43***	2.19***	1.91***
	(0.4)	(0.43)	(0.38)	(0.35)
Rel. human K ratio	0.09***	0.17***	0.06**	0.16***
	(0.03)	(0.03)	(0.03)	(0.03)
Rel. labour ratio (l)	0.46***	0.38***	0.48***	0.42***
	(0.04)	(0.04)	(0.04)	(0.04)
Gt.Kt (Γ)	-0.11***	-0.11***	-0.1***	-0.09***
	(0.01)	(0.02)	(0.01)	(0.01)
Dist(kt-lt) (Θ)	0.22***	0.21***	0.21***	0.2***
	(0.04)	(0.04)	(0.03)	(0.03)
FTA	0.63***	0.57***	0.53***	0.48***
	(0.09)	(0.09)	(0.08)	(0.08)
		Multilateral variables		
wg		0.1**		0.07*
		(0.05)		(0.04)
ws		-7.23*		-2.52
		(4.24)		(1.6)
wk		0.76**		0.83***
		(0.32)		(0.28)
wh		-1.18***		-1.21***
		(0.13)		(0.12)
wl		0.23*		0.22***
		(0.12)		(0.09)
wΓ		-0.02		-0.02**
		(0.01)		(0.01)
wΘ		-0.13*		-0.12***
		(0.07)		(0.05)
wFTA		2.23***		1.41***
		(0.8)		(0.41)
Constant	-53.74***	-52.79***	-50***	-54.3***
	(1.68)	(3.2)	(1.5)	(1.25)
Sigma-squared			13.24	13.26
			(1.64)	(1.93)
Gamma (γ)			0.9	0.9
			(0.01)	(0.01)
Mu			-6.89	-6.92
			(1.42)	(1.58)
Log likelihood fn	-8464	-8396	-8364	-8295
R-squared	0.537	0.5513		
N	4397	4397	4397	4397

Standard errors are in parentheses. *, ** and *** indicate significance at the 10 percent level, 5 percent and 1 percent levels.

Table 5 FDI performance results, 1982-2006

	1982-86	1987-91	1992-96	1997-01	2002-06
		FDI source country			
Canada	0.36	0.37	0.36	0.37	0.41
France		0.36	0.36	0.40	0.43
Germany	0.40	0.44	0.45	0.44	0.45
Japan	0.44	0.52	0.44	0.43	0.46
Netherlands	0.61	0.55	0.39	0.47	0.47
UK	0.42	0.47	0.38	0.47	0.46
USA	0.24	0.36	0.40	0.42	0.41
		Selected FDI destinations			
Australia	0.59	0.61	0.62	0.60	0.62
Brazil	0.48	0.50	0.53	0.52	0.52
China	0.13	0.26	0.29	0.34	0.32
France	0.22	0.38	0.38	0.28	0.48
Hong Kong	0.57	0.61	0.63	0.57	0.56
Mexico	0.30	0.35	0.39	0.39	0.39
Russia		0.03	0.27	0.41	0.45
Singapore			0.68	0.66	0.63
South Korea	0.43	0.40	0.32	0.34	0.40
Taiwan	0.38	0.40	0.40	0.40	0.46
Thailand		0.52	0.53	0.54	0.57
UK		0.49	0.52	0.53	0.57
USA	0.62	0.57	0.50	0.51	0.49
		Selected FDI destination regions			
APEC		0.52	0.48	0.48	0.49
ASEAN	0.59	0.54	0.54	0.56	0.57
EU	0.36	0.46	0.48	0.43	0.51
NAFTA			0.43	0.43	0.45
East Asia	0.42	0.46	0.47	0.50	0.51
South Asia	0.18	0.26	0.31	0.33	0.36
World	**0.40**	**0.44**	**0.40**	**0.42**	**0.44**

Table 5 shows a roughly stable world average over the 25 year time period. ASEAN has been the most open region towards FDI, with the EU and APEC economies (which include ASEAN members) also showing low resistance to inward FDI. North America is close to the world average while South Asia is significantly lower, confirming high barriers to inward FDI in that region. East Asia has consistently improved over the period with FDI facing less resistance over time and with FDI performance comparable to that of EU countries. As was the case

with trade performance, Hong Kong and Singapore are two high performers as FDI recipients. Other consistently high recipients among those presented in Table 5 are Australia, the United States and United Kingdom.

Explaining trade and investment performance

The trade and investment performance can be explained by variables that reflect trade policy, domestic and partner economic and political conditions, as well as institutional factors. This section indentifies a number of variables that proxy these determinants of trade and investment performance and allow a measure of whether certain trade policy variables such as FTA membership, or membership in regional groupings, as well as political distance between countries, affect the results for trade and FDI performance detailed above.

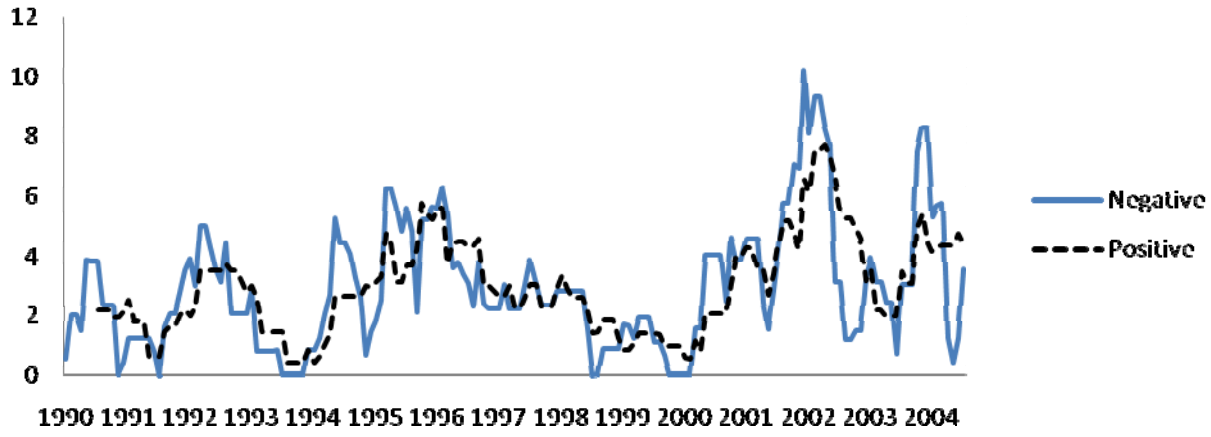
Regional trade agreements or regional groupings are captured using two types of dummy variables. One takes the value of one for when both countries are in the some grouping and zero otherwise. The other takes the value of one when only one of the countries is in that region and zero otherwise. This is a method that is commonly used for capturing and measuring the effects of trade diversion (Adams et al., 2003). If both dummy variables are positive, then the net effect of an RTA is always positive. If the RTA is shown to decrease trade between members and non-members of the RTA, that is evidence of trade diversion.

Political distance between countries causes uncertainty to increase and acts as a resistance to trade or investment. Consider the case of Japanese investment in China. Although there are no extreme events in the time period analysed such as war or the establishment of a security alliance, there were significant and prolonged low intensity conflicts as well as positive political developments fostering cooperation in the relationship that affected the economic relationship (Armstrong, 2009).

The political distance variable is shown in Figure 1 and shows Japanese 'sentiment' towards, separated into both positive and negative elements, based on event coding from newspaper articles. The data are from King (2003) and are updated to 2004 data in the new IDEA dataset. The scale on the vertical axis is an index (and a relative measure of conflict and cooperation in political relations). There is an established literature which employs, tests and develops such event data (Mansfield and Pollins, 2003).

The net effect of the political positives and negatives are difficult to determine from Figure 1 alone. As in many conflict and cooperation event data, which provide a measure of political distance, events are weighted according to a scale to reflect severity and significance of events. Using the Goldstein (1992) weighting of events, in these data from King (2003), for example, Figure 1 shows China's WTO accession in 2002 offsetting rising negative political sentiment with positive economic sentiment. The positive news dominates negative political events in the period following WTO accession.

Figure 1 Japanese political distance towards China, 1990-2004



Note: Measurements of political distance are from King (2003). Negative events are a 6 month moving average and positive events are a 12 month moving average.
Source: King (2003)

The negative events are subtracted from the positive events to obtain a measure of net political closeness. As in utility theory the assumption here is that positive events cancel out negative events. Therefore a positive value for the political variable indicates political closeness and a negative value indicates widening political distance. A movement in a positive direction implies a narrowing political distance. The variable used will be based on the FDI source country reporting news events towards the FDI host country for the FDI case and event reporting in both directions for trade. For FDI, event data based on news reported in the source country vis-à-vis the destination country reflects the sentiment and political distance faced by a parent firm in choosing to invest in the host nation.

The effect of political distance on explaining performance is measured beside other variables that can be easily measured or quantified. The other variables that are included in explaining both trade and FDI performance are regional and multilateral grouping variables, the *Economic Freedom Index* of the Fraser Institute[6], language similarity and tariff levels.

[6] The risk variable used by Baltagi et al. and Dee had a negative coefficient. Sensitivity tests are conducted for both trade and FDI using the Transparency International Corruption Perceptions Index and the World Bank Worldwide Governance Indicators with the assumption that all three variables are correlated indicators of country risk.

Table 6 Explaining trade performance

	(1) OLS	(2) OLS with political dist	(3) FE	(4) FE with political dist
constant	0.115***	0.0425***	0.261***	0.252***
	(0.004)	(0.007)	(0.005)	(0.008)
WTO Ch exp	0.144***	0.102***	0.111***	0.0517***
	(0.007)	(0.0076)	(0.0062)	(0.0065)
WTO Ch imp	0.0375***	-0.00855	0.0508***	0.0461***
	(0.006)	(0.008)	(0.0063)	(0.0069)
APEC one	0.0221***	0.0242***	0.00704***	0.0123***
	(0.0016)	(0.002)	(0.0015)	(0.00307)
APEC both	0.0965***	0.0904***	0.0164***	0.0302***
	(0.002)	(0.00296)	(0.00293)	(0.00472)
Freedom exp	0.0149***	0.0126***	-0.00167*	-0.00591***
	(0.0005)	(0.0008)	(0.00065)	(0.00108)
Freedom imp	0.0217***	0.0192***	0.00822***	0.00874***
	(0.0005)	(0.00065)	(0.00064)	(0.00095)
Tariff exp	0.00286***	0.00131***	0.00101***	0.000376
	(0.000193)	(0.00024)	(0.00017)	(0.00023)
Tariff imp	-0.000185	-0.00298***	0.000701***	0.000490*
	(0.000198)	(0.00026)	(0.00017)	(0.00023)
ASEAN one	0.0625***	0.0661***	0.168***	0.0920***
	(0.00174)	(0.0024)	(0.00547)	(0.0087)
ASEAN both	0.0868***	0.0560***	0.209***	0.111***
	(0.00614)	(0.0082)	(0.0155)	(0.0227)
NAFTA one	-0.0285***	-0.0361***	-0.00305	0.00966
	(0.00201)	(0.0026)	(0.00270)	(0.006)
NAFTA both	-0.0119	0.0533***	0.0822***	0.0920**
	(0.00849)	(0.0065)	(0.0174)	(0.03)
EU one	0.0236***	0.0160***	-0.0195***	-0.0114***
	(0.00118)	(0.0017)	(0.00164)	(0.0022)
EU both	0.0496***	0.0544***	0.0186***	0.0170***
	(0.00216)	(0.003)	(0.00331)	(0.0045)
ANDEAN one	-0.0148***	-0.0224***	0.0376***	
	(0.00176)	(0.002)	(0.00391)	
ANDEAN both	0.107***	0.104***	0.00847	
	(0.00730)	(0.0119)	(0.0119)	
MERCOSUR one	-0.0142***	-0.0153***	-0.000227	0.00204
	(0.00184)	(0.0022)	(0.00226)	(0.00447)
MERCOSUR both	0.0995***	0.126***	-0.0462***	-0.0488**
	(0.00789)	(0.0085)	(0.0113)	(0.0171)
$Language_{ij}$	0.000012***	0.0000131***		
	(0.0000003)	(0.0000005)		
Time trend	-0.0069***		-0.00341***	-0.00112***
	(0.0001)		(0.0001)	(0.00016)
Political dist exp to imp				-0.0000593
				(0.0000566)
Political dist imp to exp				0.0000971*
				(0.000056)
Political dist sum		0.0000319*		
		(0.0000193)		
R squared	0.164	0.163		
observvations	85172	42162	85172	42162

Standard errors in parentheses. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

The results in Table 6 explain trade performance and show that regional grouping variables, language similarity and economic freedom help explain trade performance and trade resistances. The variables of particular interest here are RTA and regional and multilateral trade grouping variables.

Take the case of China's accession to the WTO. China's entry to the WTO increased both its export and import performance by reducing resistances (except for imports in column (2) of Table 6). These two variables have the largest estimated parameters and their effects on trade performance are the largest among the trade policy related variables.

All regional groupings or RTA variables have a positive coefficient when both countries are members, showing, as would be expected, that an RTA increases trade (and trade performance) between members holding all else (such as distance, for example) constant. The story diverges for regions when looking at the variables estimating the effect on trade of an RTA or region when one county is a member and the other is not. The negative coefficients on 'NAFTA one', 'EU one', 'ANDEAN one' and 'MERCOSUR one' mean that the RTA membership or formation is trade diversionary.

A positive coefficient on the variables 'ASEAN one' and 'APEC one' means, for example, that trade between an APEC member and a non-APEC country increased following the formation of APEC or its membership of APEC.

The results show there is trade diversion from discriminatory regional trade blocs such as NAFTA, MERCOSUR, ANDEAN, and the EU. APEC and ASEAN, on the other hand, show increased trade among members as well as between members and non-members. There is no evidence of trade diversion in the latter arrangements (Table 6).

There is also evidence that political distance affects trade. Model (2) does not have a time trend as the inclusion of a time trend causes the political distance variable to be statistically insignificant. In this model, the sum of directional political distance is statistically significant at the 5 per cent level. Political distance from the importer's perspective (events reported in the importing country which are related to the exporting country) is also statistically significant while political distance from the perspective of an exporter is not.

This asymmetry in the impact of political distance on trade is interesting and plausible. More policy and political control is likely to be exercised over import activities than the activities of exporters. A good example is the case of China-Taiwan trade where politically-driven intervention that limits Chinese imports into Taiwan has persisted. On average it appears that political distance does not matter for an exporter and increased uncertainty in dealing with a buyer in another country does not affect the volume of trade. Trade seems to be affected by how the importing country perceives the source country of the goods. These results do not hold up when time trends are included or with other model specifications, for

example, using random effects instead of fixed effects estimation. While the evidence is not so robust, however, political distance appears to affect trade.

The low R-squared of 16 per cent for these estimates confirms the consensus in the trade literature that most of the frictions that limit the realisation of trade potential cannot be easily measured. The trade performance results from Table 3 are a measure of all resistances that limit the achievement of trade potential. The resistances identified in the analysis here quantify roughly 16 per cent of their effect.

Language similarity, economic freedom, APEC membership and political distance are also used to explain FDI performance. The choice of these variables is common in the literature on trade and FDI models. The small number of dominant FDI source countries (especially over the long time period under review) limits the number variables that can be included and variables that might tell us whether there is investment diversion from RTAs cannot be included. The OLS estimation results are presented in Table 7. The dependent variable is FDI performance, found earlier and presented in Table 5. As in the case of the trade model, the two stages (estimating performance and explaining performance) were estimated separately with the performance results of Equation 2 being the dependent variable. The binding constraint of data availability in the second stage was more restrictive in the FDI case, compared to the case of trade, with the number of observations used in estimating the frontier being 4,397 (Table 4) and the number for explaining the performance ranging from 2,441 to 2,643 observations (Table 7).

The low R-squared is similar to that of the case of trade. The low R-squared is a reflection of the significant proportion of resistances that are difficult to measure or even unobservable. The low R-squared is also an indication of the difficulties that a simultaneous estimation of the two stages might face[7]. The inclusion of a set of time dummy variables or a time trend does not change the results in any significant way except to nullify the effect of host country tariff level – not surprisingly confirming a linear trend in tariff reductions over time. The economic freedom of the host country has a positive and significant effect, as would be expected.

[7] It is common to estimate the two stages of estimating and explaining the frontier simultaneously in stochastic frontier analysis. If done separately, as in this study, a statistical distribution has to be chosen (with some statistical tests) for the one sided residual term, u. If estimated simultaneously, the distribution is determined by the variables in the second stage.

Table 7 Explaining FDI performance

Dependent variable: actual/potential FDI		
	(1)	(2)
Host freedom	0.0370***	0.0355***
	(0.00267)	(0.00303)
$Language_{ij}$	0.0000156***	0.0000149***
	(0.00000211)	(0.00000211)
Host tariff	0.00242*	0.00179
	(0.00112)	(0.00118)
Host APEC	0.0596***	0.0444***
	(0.00746)	(0.00743)
Political dist	0.000176***	
	(0.0000381)	
Lagged Political dist		0.000160***
		(0.0000395)
Constant	0.131***	0.159***
	(0.0173)	(0.0203)
R-squared	0.1607	0.1252
N	2643	2441

Standard errors in parentheses * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Unlike the case for trade where a lot of trade is conducted on relatively short contracts, FDI projects are *a priori* expected to be affected with a lag due to the inability to cancel committed capital. Start-ups may be delayed or cancelled due to a worsening of political climate. A lagged political distance variable is therefore included, with a one year lag consistent with other findings. A one year lag is considered more appropriate than a two year lag (Reuveny and Kang, 2003). This formulation has the added benefit of avoiding causality running from economic distance to political distance[8]. There is evidence that changes in economic relations influence political relations (Polachek, 1980; Mansfield and Pollins, 2003). Improvements in a political relationship would not be expected to impact on the economic relationship, and vice versa, immediately, but there is likely to be an effect after a lag, as economic agents and foreign policy stances adjust. The results with a lagged

[8] Other studies estimate simultaneous equations or use Granger causality type tests that account for, and often find evidence of bi-directional causality (Reuveny and Kang, 2003; Mansfield and Pollins, 2003; Armstrong, 2009).

political distance variable are shown in Column 2 and these results do not vary significantly from including political distance without a lag.

A measure of improving political relations helps explain an improvement in FDI performance and hence an increase in FDI. This result is more robust than the case of the effect of politics on trade (both in terms of statistical significance and sensitivity to different model specifications). This finding can be explained by the fact that trade does not commit as much in the way of resources as does the undertaking of FDI. Investing in another country and building a plant or factory, often employing and procuring locally, is more sensitive to political relations than arms length trade.

The analysis so far raises the question of how, on average, political distance has not had significant effects on trade. This finding is for the average of the world sample and there are obvious examples where political distance has dominated economic relations, such as between India-Pakistan, the United States and North Korea and United States-Cuba. Why is it that the economic interests seem to dominate political difficulties, despite these notable exceptions? The following section revisits the Japan-China case mentioned above as it is an example of how two major economic powers with episodes of rising political tensions in the period under study, unresolved historical issues and regional rivalry, have nonetheless been managed and it is a relationship that has seen the economic relationship flourish and dominate.

The case of Japan and China

The relationship between Japan and China is a case in which there has been substantial political distance from time to time (see Figure 1) yet the economic relationship, trade in both directions and FDI from Japan, has seen consistently rapid growth.

Since normalisation of diplomatic relations in 1972 and the start of the economic relationship in the modern era in 1978, political tensions have surfaced around disputed territory in the South China Sea, Yasukuni shrine visits by Japanese political leaders, and friction surrounding a rapidly rising China and the adjustments that both countries have to make towards each other in this process, felt not only because of their respective economic sizes but their proximity to each other.

With the backdrop of political tensions, the economic relationship boomed. Starting from a very low base in 1978, in 2007 trade between Japan and China was the third largest bilateral merchandise trade relationship in the world, in terms of exports and imports together, behind the United States-Canada and United States-China trade relationships. Their economies depend greatly on each other and China is Japan's largest trading partner overall and Japan is China's second largest trading partner after the United States and the third largest if the European Union (EU) is taken as a whole. Japan is the second largest source of FDI into China after Hong Kong At the end of 2007 Japanese FDI stock in China was

approximately US$37 billion and FDI flows had averaged 37.8 per cent growth, year on year, since 1985[9]. This included average growth in the first half of the 1990s of almost 54 per cent annually and 25 per cent from 2000 to 2004[10].

The trade performance results reported in this study and in Armstrong (2009) show that Japanese trade with China generally performed above the world average between 1980 and 1990 and consistently above world average trade performance from 1990 to 2006. In 2006, Japanese trade to China was achieving 42 per cent of its potential while trade from China to Japan was achieving 44 per cent of its potential. This compares to the world average of 28 per cent at this time.

While adverse politics may have affected the economic relationships of other countries significantly, for Japan and China the market dominated politics in the development of their economic relationship.

There is no bilateral agreement between China and Japan that has underpinned the development of their economic relationship in recent times. The Long Term Trade Agreement of 1978 was directed to another purpose in another era before China had fully committed to marketisation. Nor has the Bilateral Investment Treaty (BIT) of 1988 been the main driver on the recent surge of Japanese FDI into China.

Rather, it is both countries commitment to the rules and norms of the international institutional system embodied in the WTO that constrains the effects of bilateral political tensions and has provided the foundations for the huge growth of their bilateral relationship within the multilateral trading system.

China's accession to the WTO in 2001 after 15 years of negotiation was a policy initiative unlikely to be matched in the foreseeable future in terms of gains in international trade (Drysdale and Song, 2000). The effect on Japanese trade with, and investment in, China was profound as Japanese investors and business saw China as a real market for the first time (Armstrong, 2009). Table 6 shows how large the impact of WTO accession was on Chinese trade. But it was not only the event in 2001 that was important. The lead up to accession shaped the way in which Japanese business dealt with China. In the lead up to accession, China's commitment to the global trading system and ultimately to a rules based institution was the significant factor. Unilateral trade liberalisation and market oriented reforms from 1986 and throughout the 1990s, well documented in many studies such as Lardy (2002) and Lin et al. (2003), meant that Japanese traders and investors could engage China confidently and significantly ameliorate the effects of bad political relations.

[9] Source: Japanese Ministry of Finance and *OECD.Stat*.
[10] Source: Author's calculations from Japanese Ministry of Finance FDI data. http://www.mof.go.jp/english/files.htm

Chinese pro-reform leaders used the external institution of the WTO to increase the pace of, and lock in, reforms. The reforms were wide-ranging and importantly secured financial, legal and economic institution reform. In fact, no other member joining the WTO has given so many concessions on the way to accession (Drysdale, 2000; Brandt et al., 2007). The comprehensive reforms towards a more market-oriented system and commitments to transparency constrained Chinese policy makers from political intervention in international commerce across a very wide range of business activity (Garnaut and Huang, 2000).

Armstrong (2009) found that China's commitment to the global trading system was the reason that the political distance did not significantly affect the economic relationship between Japan and China. In fact, he also finds evidence that the economic relationship, with commitment to GATT, and later WTO entry, not only helped to insulate against the political tensions, but allowed the economic relationship to constrain and shape the political relationship.

The China-Japan political relationship is now underpinned by the large and significant economic relationship. The scale and significance of the economic relationship is due to the proximity of the two countries, their scales, complementarity in economic structures and integration of both into the East Asia region (Armstrong, 2009). While the vagaries of political distance have an effect on trade and FDI at the margins, the economic factors dominate.

Conclusions

The analysis and argument in this paper suggest five important conclusions about international trade and investment performance and international political relations.

The first is that multilateral institutions are very important in reducing economic and political distance between trading partners. The impact of WTO membership on the realisation of trade and investment potential is clear and measurable in the experience of China's accession to the WTO which lowered economic and political distance between China and its economic partners. Specifically, the Japan-China example shows that, despite recurring political tensions between these two important East Asian partners, China's accession to the WTO constrained their impact on bilateral trade and investment relations. There is independent evidence that the circumstance of common membership of the WTO has promoted the economic relationship between China and Japan to a point where that relationship has impacted favourably on their political relationship.

The second is that while political relations do affect economic relations, their effect is not important across the vast majority of *trading* relationships, especially for export activities although less so for import activities. Generally politics affects trade at the margins beyond the markets where governments have discretion in economic decision-making not subject to international rules. Again, the presumption is that common membership of the multilateral

international institutions is an important element that constrains the impact of politics on trade. Where the disciplines of the WTO do not apply and in cases where political behaviour is not constrained by its rules and norms, politics are more likely to dominate economics.

The third is that the important effects of political relations on economic relations come in today's world via international investment rather than through international trade. The nature of FDI, with its long lead-time, commitments in a domestic political setting and the absence of a global regime that constrains political behaviour towards foreign investors would appear to account for these differences between trade and investment relations. This is an important conclusion for two reasons. FDI is now a very important element shaping international economic integration. China and other emerging economies have recently joined the industrial country investors abroad and the political problems associated with the surge of Chinese investment abroad could complicate the international integration of what is now one of the largest economies in the world (Drysdale and Findlay, 2009).

The fourth is that East Asian economies are leading trade and economic integration, measured in terms of their trade and investment performance and their impact on global trade and investment frontiers. East Asian economies, including ASEAN, have less resistance to trade than the EU, North American and especially South Asian countries, in respect of both inter-regional and intra-regional trade (Table 3). This is interesting and important in the present context because trade and investment integration in East has taken place without the framework of formal political ties or tight institutional arrangements between the whole range of economies involved – absent 'hard' political associations – unlike in Europe or North America.

Finally, of all the major regional groupings, APEC and ASEAN stand out as arrangements in which there has been no trade diversion, unlike the other formal regional groupings of NAFTA, EU, ANDEAM and MERCOSUR in which trade diversion is measurable (Table 6). ASEAN and APEC are the most trade integrated regional groupings worldwide while ASEAN is the most open FDI recipient, followed by the EU and APEC. ASEAN and APEC are also more open to the rest of the world and not inward looking as evidenced by the trade diversion found in other regional blocs. This may be no surprise as the design of both APEC and ASEAN has been outward-looking. The story of APEC in particular is well known with policies of liberalisation and reform, organised around the principle of open regionalism (a strategy well-suited to the development, objectives and diversity of the Asia Pacific region). But what may be more surprising is that, despite its 'soft politics' there is a measurable and positive 'APEC effect' on members' trade and investment with each other as well as on their and investment globally.

Trade in the Asia Pacific is underpinned by open trading and investment regimes and low border barriers to trade all encouraged by APEC members' independent but collectively endorsed commitments to these policy strategies.

This study highlights the priority that now needs to be given in this region to the regional and international investment regime that comprehends regulatory and institutional issues beyond the border if there is to be political security for the next phase of regional and international economic integration. While the question is not addressed explicitly this paper and it is a subject for another day, the evidence here does suggest that traditional regional trade arrangements may not be the most efficacious instrument whereby to achieve these objectives. What is clear is that, in future, economic flashpoint of political tension is more likely to surround matters of investment than it is matters of trade.

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Data Annex

Capital stock

Following Leamer (1984) and common practice (see Dee, 2007 and Baltagi et al. 2007) the capital stock is calculated using the perpetual inventory method. This is calculated using gross fixed capital formation, K, at time t with the formula $K_t = 2\sum^{t+2}_{t-2} I_t$, where I is investment with t sufficiently less than 1982, the period under study.

Trade frontier countries

Argentina, Australia, Austria, Bangladesh, Belgium and Luxemburg, Brazil, Bulgaria, Canada, Chile, China, Colombia, Costa Rica, Cyprus, Denmark, Ecuador, Egypt, Finland, France, Germany, Ghana, Greece, Honduras, Hong Kong, Hungary, India, Indonesia, Ireland, Israel, Italy, Jamaica, Japan, Jordan, South Korea, Malaysia, Malta, Mauritius, Mexico, Netherlands, New Zealand, Nicaragua, Nigeria, Norway, Pakistan, Panama, Paraguay, Peru, Philippines, Poland, Portugal, Russia, Singapore, Slovakia, South Africa, Spain, Sri Lanka, Sweden, Switzerland, Taiwan[11], Thailand, Turkey, United Kingdom, United States, Uruguay, Venezuela, an Vietnam.

FDI destination (or host) countries

Albania, Algeria, Argentina, Australia, Austria, Azerbaijan, Belgium, Belize, Benin, Bolivia, Brazil, Bulgaria, Canada, Central African Republic, Chad, Chile, China, Costa Rica, Croatia, Czech Republic, Denmark, Dominican Republic, Ecuador, El Salvador, Estonia, Finland, France, Gabon, Gambia, Georgia, Germany, Ghana, Greece, Guatemala, Guinea, Hong Kong, Hungary, Iceland, India, Indonesia, Iran, Ireland, Italy, Japan, Jordan, Latvia, Lithuania, Luxembourg, Macau, Malaysia, Mauritius, Mexico, Morocco, Namibia, Netherlands, New Zealand, Nicaragua, Norway, Pakistan, Panama, Papua New Guinea, Paraguay, Peru, Philippines, Poland, Portugal, Romania, Russia, Singapore, Slovakia, Slovenia, South Africa, South Korea, Spain, Sri Lanka, Sweden, Switzerland, Syria, Taiwan, Tanzania, Thailand, Trinidad and Tobago, Tunisia, Turkey, UAE, UK, Ukraine, Uruguay, USA.

[11] Trade and GDP data for Taiwan are from the International Economic Databank (IEDB), Australian National University, http://iedb.anu.edu.au/