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The Impact of Trade Finance on International Trade: Does Financial Development Matter?

Lawrence McNeil
Prairie View A&M University

Daniel Perez Liston
Prairie View A&M University

Abstract

Approximately 80 percent of global trade relies heavily on some version of trade finance. This paper seeks to further our understanding of the relationship between trade flows and the availability of trade finance, while accounting for the development of the sample countries' financial sectors. The model also controlled for additional established variables that significantly influence trade patterns, such as import/export demand and exchange rates. Our results indicate that trade finance is a positive correlate with export and import volumes. However, we find that trade finance becomes even more important in determining trade volumes when countries have a higher level of financial development.

JEL Codes: G01, G15, F21
Keywords: Trade Finance, Exports, Imports

1. Introduction

The recent disproportionate drop in international trade during the Great Recession has gained significant attention from both the popular press and academics (Eaton et al., 2010). The 15 percent drop in trade during this 18-month period has stimulated renewed interest in the causal effects behind global trade patterns, with particular attention being paid to trade finance. This paper seeks to further our understanding of the relationship between trade flows and the availability of trade finance.

Approximately 80 percent of global trade relies heavily on some version of trade finance, which can vary between open accounts, interfirm trade credit, or bank-intermediated trade finance (Chauffour and Malouche, 2011). During the time of the financial recession, short-term trade finance fell precipitously. However, the decline in trade finance was slightly more pronounced in countries with less-developed financial sectors. For example, during the first quarter of 2009, international bank lending to non-OECD member countries fell by 14 percent, compared to an international bank lending decline of 10 percent to OECD member countries (Korinek, et. al, 2009).

The primary goal of this paper is to quantitatively assess the impact of trade finance on trade flows, while accounting for the level of development of the sample countries' financial sectors. Additionally, the model will control for two other established variables that significantly influence trade patterns – import/export demand and exchange rates. Given their established correlation with trade patterns in general, it is important to control for and factor out the separate impact of these variables.

The paper is organized as follows. Section 2 briefly discusses the prior literature. Section 3 describes the data and methodology employed in the econometric analysis. Section 4 presents the empirical methods used to examine the data. Section 5 discusses the results and Section 6 concludes.

2. Literature Review

Recent empirical studies suggest that the 2008-2009 global financial crisis had a significant influence on global trade patterns (Korinec et al., 2009; Freund, 2009; Evennett, 2009; Kee et al., 2010; Eaton et al., 2010; Levchenko et al., 2010; Chor and Manova, 2011). Korinec et al. (2009) examined the effects of both the availability and the cost of short-term trade finance on imports for 43 different countries pre- and post-crisis. Their findings indicate both the cost and availability of short-term trade credit were significant factors in decreasing trade during the crisis. However, their findings indicate that the drop in country GDP had a greater impact than that of trade finance.

Eaton et al. (2010) find that global trade fell by 30 percent relative to GDP during the 2008-2009 global recession. They examine whether the drop in trade was due to the changing composition of global output, or increasing trade frictions were to blame. Their paper suggests that the decline is largely due to a decline in the share of demand for tradables. In particular, they find that demand for durable goods played a key role in the decline of trade. Levchenko et al. (2010) studied the imports and exports to the U.S. during the latest recession using disaggregated quarterly and monthly data. Their results suggest that the collapse in trade is not justified by the overall decline in economic

activity. Specifically, they find a 50 percent shortfall in imports, relative to what a simple import demand function would predict. Their findings also suggest that trade credit did not play a significant role in the reduction imports. Chor and Manova (2011) examined international trade flows for the latest global financial crisis using monthly, high frequency data on US imports. Specifically, they made use of the variability in the cost of capital across countries and over time. In contrast to Levchenko et al. (2010), Chor and Manova find that credit conditions during the financial recession had a significant impact on import volumes. In particular, they found that countries with tighter credit conditions, proxied by country-specific interbank rates, exported less to the United States during the height of the crisis. As far as industry effects, their findings suggest that financially vulnerable industries suffered the most to from changing costs of external capital.

Overall, the aforementioned literature supports the view that trade finance, in addition to other factors, is a determinant of trade flow patterns amongst various countries. The literature, however, fails to examine the role a country's level of financial development plays in the relation between trade finance and trade flow patterns. The level of financial development is important. Some authors argue that financial development is an indicator of the degree of financing constraints faced by firms (Love and Zicchino, 2006). Love and Zicchino (2006) find that financing constraints are larger for firms in countries with less developed financial systems. In particular, their findings support the view that it is easier for firms' to obtain access to external financing in countries where the financial sector is highly developed. Therefore, it is reasonable to

assume that the impact of trade finance on trade flow patterns might be different between countries with very different levels of financial development.

There is evidence which suggests that a country's lack of financial development might be compensated by foreign portfolio flows (Manova, 2008a; Antras et al., 2009; and Manova et al., 2009). Additionally, some research that examines the relation between real exchange rates and a country's trade flows suggests that exchange rate uncertainty depresses trade flow patterns (Ozturk, 2006; Ozturk and Kalyoncu, 2009).[1]

Our study will contribute to the literature in a distinct way. We will compare the relative impact of trade credit on trade flows for two different sets of countries – less financially developed vs. more financially developed. This is an important distinction because a country's level of financial development directly correlates with its ability to absorb global recessionary shocks as well as its ability to recuperate from financial downturns.

3. Data Sources and Measurement Technique

The empirical analysis is conducted using annual data for each country, which is retrieved from various sources: the International Monetary Fund's (IMF) World Economic Outlook and International Financial Statistics (IFS) databases and the World Bank's World Development Indicators. The sample spans from 1990 to 2010, for a total

[1] However, other research seems to suggest the opposite (McKenzie and Brooks, 1997; McKenzie, 1998; Kasman and Kasman, 2005).

of 21 annual observations per country.[2] The variables used to estimate the export and import volume equations are real exports ($exports_{t,j}$), real imports ($imports_{t,j}$), real gross domestic product ($GDP_{t,j}$), export demand ($EXDEM_{t,j}$), real exchange rate ($RER_{t,j}$), trade finance ($FIN_{t,j}$), and a dummy variable ($DUMMY_{t,j}$) that takes the value of 1 if a country is financially developed and zero otherwise.[3] Several researchers have used these variables as predictors of international trade patterns (Thomas, 2009; Korinec et al., 2009; Freund, 2009; Evennett, 2009; Kee et al., 2010; Eaton et al., 2010; Levchenko et al., 2010; Chor and Manova, 2011).

Export and import volumes are measured in constant 2000 dollars and sourced from the World Bank's World Development Indicators. Export demand represents market share and is computed as the ratio of imports to total exports, specifically

$$EXDEM_{t,j} = \frac{\Sigma(imports_{i,j,t})}{\Sigma(exports_{j,t})}, \qquad (1)$$

where $imports_{i,j}$ is considered total imports into country *i* from countries *j* at time *t*. $Exports_{j,t}$ represents total exports from countries *j* at time *t*.

[2] The sample begins in 1990 based on data availability.

[3]Table 1 presents the descriptive statistics for all the variables included in the study. Table 2 shows the correlation matrix.

Following Thomas (2009), our measure of external trade finance ($FIN_{t,j}$) is constructed by dividing net portfolio inflows to the *j*th country by the *j*th country's gross domestic product. The real exchange rate and portfolio flow data are obtained from International Financial Statistics (IFS). Real exchange rates are used to account for relative prices. While many papers utilize relative export and import prices as an explanatory variable of trade flows, we prefer real exchanges rates due to their convenient ability to be implemented in large sample set studies. Numerous empirical studies support measuring the direct impact of real exchange rates on trade flows, including DeGregorio and Wolf (1994), Boyd et. al. (2001), and Bussiere et. al. (2009).

4. Empirical Model

To examine the relation between our variables of interest we estimate econometric models similar to those found in Arize (1996), Asafu-Adjeye (1999), and Ozturk and Kalyoncu (2009). Specifically, panel data models (e.g., fixed effects models) are used to examine the impact of trade finance on exports and imports over the sample period. The export volume specification is as follows:

$$\log(exports_{t,j}) = \alpha_0 + \alpha_1 \log(EXDEM_{t,j}) + \alpha_2 RER_{t,j} + \alpha_3 FIN_{t,j} + \alpha_4 FIN_{t,j} * DUMMY_{t,j} + u_{t,j}, \quad (2)$$

where $exports_{t,j}$ is real exports for the *j*th country at time *t*, $EXDEM_{t,j}$ is a proxy for export demand, $RER_{t,j}$ is the real exchange rate index; $FIN_{t,j}$ is a proxy for trade finance; and

$DUMMY_{t,j}$ is binary variable equal to one if a country is considered financially developed and zero otherwise. The import volume equation is as follows:

$$\log(imports_{t,j}) = \alpha_0 + \alpha_1 \log(GDP_{t,j}) + \alpha_2 RER_{t,j} + \alpha_3 FIN_{t,j} + \alpha_4 FIN_{t,j} * DUMMY_{t,j} + v_{t,j}, \quad (3)$$

where $imports_{t,j}$ is real imports for the *j*th country at time *t* and all other variables are defined as before.

Following Love and Zicchino (2006), we dichotomize countries into two groups based on their level of financial development. The procedure is as follows. First, similar to Demirguc-Kunt and Levine (1996), we construct an index of financial development (FD) by combining three standardized measures: foreign direct investment divided by GDP, market capitalization divided by GDP, and stocks traded divided by GDP. The countries are then divided based on the median level of the index of financial development. The set of countries above the median of FD is referred to as the high financial development group, whereas the countries below the median of FD are the low financial development group.[4]

Finally, this paper utilizes panel data to test for correlations between trade volumes and the explanatory variables already discussed. The equations are estimated

[4] High financially developed countries are: Australia, Canada, Chile, China, Denmark, Finland, France, Germany, Japan, Malaysia, Norway, New Zealand, Philippines, Singapore, Spain, Sweden, Switzerland, United Kingdom, and United States. Low financially developed countries are: Austria, Brazil, Colombia, Cote D'Ivoire, Cyprus, Greece, Hungary, Italy, Mexico, Morocco, Netherlands, Pakistan, Poland, Portugal, Tunisia, and Venezuela.

using pooled least squares, cross-section fixed effects (FE) GLS which accounts for the presence of cross-section heteroskedasticity, and cross-section random effects (RE) GLS. The variance-covariance matrix is calculated using White's cross-section estimator. The advantage of the FE model is that it assumes the error terms may be correlated with the individual effects among the regressors. If the error terms are uncorrelated with the regressors, then the RE model should be selected.

The classical test to determine whether the FE or RE estimation methodology is appropriate is the Hausman specification test (Hausman, 1978). This test will determine whether there is significant correlation between unobserved sector-specific random effects and the regressors. If the test finds no correlation, the RE model should be used; if correlation is found, then the RE model would be an inconsistent estimation and the FE model would be more appropriate. The Hausman test is a type of Wald chi-squared (χ^2) test with *k-1* degrees of freedom, where *k* is the number of regressors. The selection of the FE or RE model is determined by the value of the Hausman test statistic *m*. If *m* is larger than the critical χ^2, then the null hypothesis that random effects are uncorrelated with the regressors can be rejected and the more efficient FE model should be selected.

5. Results

Tables 3 – 8 contain econometric results based on pooled, fixed effect GLS, and random effect GLS testing.[5] All the tables contain a base model which account for the fundamental determinants of export and import volumes. For exports, the base corollaries are foreign demand (EXDEM) and real exchange rates (RER). For imports, the base corollaries are GDP and RER. Further econometric testing involved controlling for trade finance (FIN) as well as the dummy variable, which accounts for each nation's level of financial development.

All the export tables indicate a strong positive correlation between export volume and foreign demand in the sample countries. This correlation was expected based on the large amount of empirical work that establishes strong economic relationships between many of the countries in the sample as well as between countries with relatively high GDPs. However, strength of significance relationship differences emerged when comparing the pooled vs. fixed GLS tables. The pooled models 3.2 and 3.3 contained significantly stronger correlations between the export volume and foreign demand.

The impact of real exchange rates on exports was expected to be negative. A negative RER would suggest that as a nation's currency depreciated against the dollar, the result would be higher demand for its exports. This expected relationship was successfully established based on the results in Tables 3 – 5. While the correlation

[5]All tables are located in the Appendices. Export volumes are shown in Tables 3 – 5 and import volumes are in Tables 6 – 8.

between RER and exports was generally very weak, still the negative direction of the relationship, as well as its statistical significance, was affirmed.

The import tables also contained a positive and significant relationship between import volumes and domestic demand, as expected. Moreover, the impact of real exchange rates on import volumes was positive, suggesting correctly that as the currency of domestic nations strengthens, their level of imports tends to increase. The strength of RER on import volumes was weak yet significant, which is similar to RER's relationship with export volumes.

The impact of portfolio flows (FIN, the trade finance proxy) on export and import volume was, in most cases, positive and significant at the 1- and 5-percent levels, indicating the clear role trade finance has in determining trade flows, which has been recently re-established by Chauffour and Malouche (2011). Furthermore, when interacting FIN with the dummy financial development variable, an interesting finding was confirmed. Nations at higher levels of financial development very consistently had a stronger relationship between trade finance and trade volume. For the pooled equation 3.3, the elasticity of export volume with respect to trade finance was 0.180. However, when interacted with the financial development dummy variable, the relationship strengthened to 2.43 and increased in level of significance. Similar elasticity improvements were found in the fixed and random export tables (models 4.3 and 5.3). On the import side, the pooled, fixed effect, and random effect interaction coefficients were relatively smaller than the export interaction coefficients; however, the import coefficients were still robust and significant. These findings suggest that countries with

stronger financial infrastructures are able to better utilize trade finance dollars to positively impact their trade positions.

The results of the Hausman test indicate that the FE model is preferred due to the *m* values (Hausman test statistics) being relatively higher than the critical χ^2 values. The results of the majority of the Hausman tests confirm that differences in the coefficients are systematic; therefore, the preference is in favor of the FE models, which have more robust parameter values and $R^2 s$.

6. Conclusion

This goal of this paper was to assess the relationship between trade volume and trade finance. Using country-level panel data on trade volumes, GDP, real exchange rates, and trade finance, our results indicate that trade finance is a significantly positive correlate with export and import volumes. However, we find that trade finance becomes even more important in determining import and export volumes when countries have a higher level of financial development.

The specifications were estimated based on pooled least squares, fixed effects GLS, and random effects GLS modeling techniques. The Hausman test confirmed that the more robust FE model was preferred. From a policy standpoint, the results underscore the rationale for policies that lead to the improvement of financial infrastructures. Therefore, a logical next step of the analysis should be researching what specific aspects of financial development have the most impact on trade volumes.

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Table 1. Descriptive statistics.

	Mean	Median	Maximum	Minimum	Std. Dev.
Exports	$165.00	$70.80	$1,530.00	$2.68	$245.00
Imports	$166.00	$65.5	$1,980.00	$1.85	$270.00
GDP	$771.00	$162.00	$11,700.00	$6.19	$1,760.00
EXDEM	0.02	0.01	0.17	0.00	0.03
FIN	0.03	0.02	0.38	-0.15	0.04
RER	100.84	100.00	195.25	37.51	14.24

This table provides descriptive statistics for the variables used in the investigation which are the: real exports ($exports_{t,j}$), real imports ($imports_{t,j}$), real gross domestic product ($GDP_{t,j}$), foreign demand ($EXDEM_{t,j}$), trade finance ($FIN_{t,j}$), and the real exchange rate ($RER_{t,j}$). The sample spans from 1990 through 2010, for a total of 21 annual observations per country. All data are in an annual frequency. All dollars are in billions. The real exchange rate and the portfolio flow data used to construct the trade finance proxy are obtained from International Financial Statistics (IFS). Data for exports, imports, gross domestic product, and foreign demand all come from the IMF's World Economic Outlook database as well as the World Bank's World Development Indicators.

Table 2. Correlation Matrix

	Exports	*Imports*	*GDP*	*EXDEM*	*FIN*	*RER*
Exports	1.00					

Imports	0.96	1.00				
	(0.00)	-----				
GDP	0.84	0.90	1.00			
	(0.00)	(0.00)	-----			
EXDEM	0.85	0.90	0.89	1.00		
	(0.00)	(0.00)	(0.00)	-----		
FIN	0.14	0.16	0.07	0.13	1.00	
	(0.00)	(0.00)	(0.08)	(0.00)	-----	
RER	0.00	0.01	0.02	0.00	-0.12	1.00
	(0.91)	(0.89)	(0.60)	(0.93)	(0.00)	-----

This table provides the correlation matrix for the variables used in the investigation which are: real exports ($exports_{t,j}$), real imports ($imports_{t,j}$), real gross domestic product ($GDP_{t,j}$), foreign demand ($EXDEM_{t,j}$), trade finance ($FIN_{t,j}$), and the real exchange rate ($RER_{t,j}$). The sample spans from 1990 through 2010, for a total of 21 observations per country. All data are in an annual frequency. The real exchange rate and the portfolio flow data used to construct the trade finance proxy are obtained from International Financial Statistics (IFS). Data for exports, imports, gross domestic product, and foreign demand all come from the IMF's World Economic Outlook database as well as the World Bank's World Development Indicators. The *p*-values are in parentheses.

Table 3. Export volume equation, pooled least squares

	Model 3.1	*Model 3.2*	*Model 3.3*
C	26.761***	29.570***	29.513***
	(0.228)	(0.140)	(0.103)
EXDEM	0.327***	0.979***	0.969***
	(0.043)	(0.012)	(0.013)
RER	-0.002***	0.001	0.001
	(0.001)	(0.001)	(0.001)
FIN		1.151***	0.180
		(0.386)	(0.669)
*FIN*DUMMY*			2.250***
			(0.590)
Adj. *R*-squared	0.944	0.898	0.900

This table provides the coefficient estimates for the pooled least squares estimation of equation (2) in the text. Furthermore, the variance-covariance matrix is calculated using White's cross-section estimator. The variables used in the investigation which are: real exports ($exports_{t,j}$), real imports ($imports_{t,j}$), real gross domestic product ($GDP_{t,j}$), foreign demand ($EXDEM_{t,j}$), trade finance ($FIN_{t,j}$), and the real exchange rate ($RER_{t,j}$). The sample spans from 1990 through 2010, for a total of 21 observations per country. All data are in an annual frequency. The real exchange rate and the portfolio flow data used to construct the trade finance proxy are obtained from International Financial Statistics (IFS). Data for exports, imports, gross domestic product, and foreign demand all come from the IMF's World Economic Outlook database as well as the World Bank's World Development Indicators. Standard errors are in parentheses and *, **, *** denotes significance at the 10%, 5%, and 1% level, respectively.

Table 4. Export volume equation, GLS estimation

	Model 4.1	*Model 4.2*	*Model 4.3*
C	26.761***	26.545***	26.618***
	(0.228)	(0.229)	(0.209)
EXDEM	0.327***	0.311***	0.322***
	(0.043)	(0.044)	(0.042)
RER	-0.002***	-0.001*	-0.002***
	(0.000)	(0.000)	(0.000)
FIN		2.202***	1.227***
		(0.494)	(0.488)
*FIN*DUMMY*			2.197***
			(0.869)
Adj. *R*-squared	0.944	0.948	0.949
Redundant fixed effects test	14.881***	15.214***	15.446***

This table provides the coefficient estimates for the GLS estimation of equation (2) in the text. The variables used in the investigation which are: real exports ($exports_{t,j}$), real imports ($imports_{t,j}$), real gross domestic product ($GDP_{t,j}$), foreign demand ($EXDEM_{t,j}$), trade finance ($FIN_{t,j}$), and the real exchange rate ($RER_{t,j}$). The sample spans from 1990 through 2010, for a total of 21 observations per country. All data are in an annual frequency. The real exchange rate and the portfolio flow data used to construct the trade finance proxy are obtained from International Financial Statistics (IFS). Data for exports, imports, gross domestic product, and foreign demand all come from the IMF's World Economic Outlook database as well as the World Bank's World Development Indicators. Standard errors are in parentheses and *, **, *** denotes significance at the 10%, 5%, and 1% level, respectively. The last column reports the *F*-statistic for the likelihood ratio test for redundant fixed effects; the null hypothesis is that of redundant fixed effects.

Table 5. Export volume equation, GLS random effects

	Model 5.1	*Model 5.2*	*Model 5.3*
C	30.052***	29.894***	29.847***
	0.188	0.190	0.190
EXDEM	0.961***	0.946***	0.939***
	0.025	0.026	0.026
RER	-0.004***	-0.004***	-0.004***
	0.001	0.001	0.001
FIN		1.962***	1.037**
		0.355	0.462
*DUMMY*FIN*			
			0.684
Adj. *R*-squared	0.642	0.642	0.645
Hausman test	27.482***	31.189***	29.706***

This table provides the coefficient estimates for the GLS estimation of equation (?) in the text. The equations are estimated using cross-section random effects GLS. Furthermore, the variance-covariance matrix is calculated using White's cross-section estimator. The variables used in the investigation which are: real exports ($exports_{t,j}$), real imports ($imports_{t,j}$), real gross domestic product ($GDP_{t,j}$), foreign demand ($EXDEM_{t,j}$), trade finance ($FIN_{t,j}$), and the real exchange rate ($RER_{t,j}$). The sample spans from 1990 through 2010, for a total of 21 observations per country. All data are in an annual frequency. The real exchange rate and the portfolio flow data used to construct the trade finance proxy are obtained from International Financial Statistics (IFS). Data for exports, imports, gross domestic product, and foreign demand all come from the IMF's World Economic Outlook database as well as the World Bank's World Development Indicators. Standard errors are in parentheses and *, **, *** denotes significance at the 10%, 5%, and 1% level, respectively. The last column reports the chi-squared statistic for the Hausman test for correlated random effects.

Table 6. Import volume equation, pooled least squares

	Model 6.1	*Model 6.2*	*Model 6.3*
C	2.889***	3.083***	3.207***
	0.158	0.186	0.187
GDP	0.834***	0.820***	0.815***
	0.004	0.006	0.007
RER	0.002**	0.003***	0.003***
	0.001	0.001	0.001
FIN		2.514***	2.023***
		0.637	0.826
*DUMMY*FIN*			1.138
			1.019
Adj. *R*-squared	0.852	0.858	0.858

This table provides the coefficient estimates for the pooled least squares estimation of equation (3) in the text. The equations are estimated using pooled least squares. Furthermore, the variance-covariance matrix is calculated using White's cross-section estimator. The variables used in the investigation which are: real exports ($exports_{t,j}$), real imports ($imports_{t,j}$), real gross domestic product ($GDP_{t,j}$), foreign demand ($EXDEM_{t,j}$), trade finance ($FIN_{t,j}$), and the real exchange rate ($RER_{t,j}$). The sample spans from 1990 through 2010, for a total of 21 observations per country. All data are in an annual frequency. The real exchange rate and the portfolio flow data used to construct the trade finance proxy are obtained from International Financial Statistics (IFS). Data for exports, imports, gross domestic product, and foreign demand all come from the IMF's World Economic Outlook database as well as the World Bank's World Development Indicators. Standard errors are in parentheses and *, **, *** denotes significance at the 10%, 5%, and 1% level, respectively.

Table 7. Import volume equation, GLS fixed effects

	Model 7.1	*Model 7.2*	*Model 7.3*
C	-23.640***	-23.245***	-23.319***
	0.702	0.747	0.808
GDP	1.849***	1.834***	1.836***
	0.027	0.029	0.031
RER	0.003***	0.003***	0.003***
	0.000	0.000	0.000
FIN		0.363***	0.337***
		0.098	0.093
*DUMMY*FIN*			0.086
			0.125
Adj. *R*-squared	0.994	0.995	0.994
Redundant fixed effects test	428.490***	410.354***	398.553***

This table provides the coefficient estimates for the GLS estimation of equation (?) in the text. The equations are estimated using cross-section fixed effects GLS which accounts for the presence of cross-section heteroskedasticity. Furthermore, the variance-covariance matrix is calculated using White's cross-section estimator. The variables used in the investigation which are: real exports ($exports_{t,j}$), real imports ($imports_{t,j}$), real gross domestic product ($GDP_{t,j}$), foreign demand ($EXDEM_{t,j}$), trade finance ($FIN_{t,j}$), and the real exchange rate ($RER_{t,j}$). The sample spans from 1990 through 2010, for a total of 21 observations per country. All data are in an annual frequency. The real exchange rate and the portfolio flow data used to construct the trade finance proxy are obtained from International Financial Statistics (IFS). Data for exports, imports, gross domestic product, and foreign demand all come from the IMF's World Economic Outlook database as well as the World Bank's World Development Indicators. Standard errors are in parentheses and *, **, *** denotes significance at the 10%, 5%, and 1% level, respectively. The last column reports the *F*-statistic for the likelihood ratio test for redundant fixed effects; the null hypothesis is that of redundant fixed effects.

Table 8. Import volume equation, GLS random effects

	Model 8.1	*Model 8.2*	*Model 8.3*
C	-17.707***	-17.209***	-17.198***
	0.605	0.610	0.613
GDP	1.614***	1.595***	1.594***
	0.023	0.023	0.023
RER	0.005***	0.005***	0.005***
	0.000	0.000	0.000
FIN		0.449***	0.104
		0.142	0.186
*DUMMY*FIN*			0.797***
			0.283
Adj. *R*-squared	0.838	0.839	0.840
Hausman test	265.802***	272.974***	264.657***

This table provides the coefficient estimates for the GLS estimation of equation (?) in the text. The equations are estimated using cross-section random effects GLS. Furthermore, the variance-covariance matrix is calculated using White's cross-section estimator. The variables used in the investigation which are: real exports ($exports_{t,j}$), real imports ($imports_{t,j}$), real gross domestic product ($GDP_{t,j}$), foreign demand ($EXDEM_{t,j}$), trade finance ($FIN_{t,j}$), and the real exchange rate ($RER_{t,j}$). The sample spans from 1990 through 2010, for a total of 21 observations per country. All data are in an annual frequency. The real exchange rate and the portfolio flow data used to construct the trade finance proxy are obtained from International Financial Statistics (IFS). Data for exports, imports, gross domestic product, and foreign demand all come from the IMF's World Economic Outlook database as well as the World Bank's World Development Indicators. Standard errors are in parentheses and *, **, *** denotes significance at the 10%, 5%, and 1% level, respectively. The last column reports the chi-squared statistic for the Hausman test for correlated random effects.