

**Impact of the Global Financial Crisis on the Degree of Financial Integration among East Asian Countries<sup>+</sup>**

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## **Abstract**

This paper aims to gauge the impact of the global financial crisis on bilateral holdings of financial assets among East Asian countries. For this purpose, this paper uses the IMF's Coordinated Portfolio Investment Survey (CPIS) data. We first present information about financial linkages between the CPIS-participating eight East Asian economies and other East Asian economies before and after the global financial crisis of 2008. We then apply the gravity model to assess the determinants of the cross-border holdings of foreign securities for 4 major East Asian financial investors – Hong Kong, Japan, Korea and Singapore. We find only few changes in the bilateral holdings of financial assets among East Asian countries in the post-crisis period. In particular, our evidence does not indicate that intra-Asian financial integration has increased noticeably since the global crisis.

## 1. Introduction

Due to rapid growth of intra-East Asian trade,<sup>1</sup> East Asia achieved a high level of de facto regional economic integration. With the three free trade agreements (FTAs) of China, Japan and Korea with the Association of Southeast Asian Nations (ASEAN), and the recent negotiations of Regional Comprehensive Economic Partnership (RCEP)<sup>2</sup>, China-Japan-Korea FTA, and China-Korea FTA, East Asia has the potential to become the second most integrated region in the world after the European Union.

However, a number of studies, including Eichengreen and Park (2005), Kim, *et al.* (2005), Lee (2008), Park and Wyplosz (2008), Garcia-Herrero, *et al.* (2009), and Lee, *et al.* (2013) have observed that intra-East Asian financial integration remains weak, despite the high and growing level of trade integration. The relatively limited linkages of financial markets among the East Asian countries have been pointed out as a weakness of the region. This is because most countries in the region rely excessively on financial markets outside the region. Therefore, they are very susceptible to the financial turbulences and macroeconomic conditions of the rest of the world. However, more recently, the “decoupling” of East Asia from the macroeconomic conditions the US and other advanced countries outside the region has become a popular theme among Asian policy circles.<sup>3</sup> Many authors like Park (2011) argue that if decoupling had taken root before the crisis, East Asia could have remained relatively immune to the global crisis that originated in the US.

Besides, the chronic capital account surplus of the US against Japan, China, and most emerging countries of East Asia – which has been dubbed as “global imbalances or trans-Pacific imbalances” – has taken center stage in debates about the causes and consequences of the global financial crisis.<sup>4</sup> That is, before the global financial crisis of 2008, large US current account deficits were primarily funded by East Asian countries (i.e., by massive capital flows from East

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<sup>1</sup> Specifically, intra-regional trade share among the 15 East Asian countries (ASEAN + China, Hong Kong, Japan, Taiwan, and Korea) increased from 42.1% in 1991 to 27.7% in 2001 and then to 51.0% in 2011. See the website of Asia Regional Integration Center, Asian Development Bank.

<sup>2</sup> RCEP, composed of 10 ASEAN member countries plus 6 countries such as China, Japan, Korea, Australia, New Zealand, and India, launched its negotiations in November 2012.

<sup>3</sup> See for example, Kim, *et al.* (2009).

<sup>4</sup> For example, Bernanke (2009), Council of Economic Advisors (2009), Krugman (2009), and Kohn (2010). Even before the global financial crisis, some authors like Bernanke (2005, 2007) raised concerns about global imbalances.

Asian countries to the US).

Therefore, we aim to assess whether financial investments of East Asian countries have undergone any noticeable changes since the global financial crisis of 2008.<sup>5</sup> Specifically, we aim to assess whether the East Asian countries have changed their relative investment positions in d East Asia, US, and EU. For example, do East Asian countries overinvest or underinvest in the US? In each other? One closely related paper is Lee and Park (2013) who examine the security investments of major East Asian countries in the US financial markets before and after the crisis. In particular, they use the US Treasury International Capital (TIC) data and find that even though the “overinvestment” of most East Asian countries in the US has declined somewhat since the global crisis, it still remains substantial. While Lee and Park (2013) examine foreigners’ security investment positions from the perspective of US, this paper uses the IMF’s Coordinated Portfolio Investment Survey (CPIS) data on cross-border security investment positions from the perspective of East Asian countries. This paper is also closely related to Kim, *et al.* (2005), Lee (2008), Garcia-Herrero *et al.* (2009), and Lee, et al., (2013) who use the IMF's CPIS data to evaluate the degree of linkages among East Asian equity and debt security markets. But the data used in these papers covers only the pre-crisis period.

Our econometric analysis of cross-border holdings of financial assets by East Asian economies before and after the global financial crisis yields a number of interesting findings. For example, when we test whether the four East Asian economies hold more equities issued by other East Asian economies than predicted by the financial gravity model, we find no statistically significant coefficient for the East Asia dummy. This implies that in the context of equities the four East Asian investors are not integrated with other East Asian economies above the level predicted by the gravity model. This result does not change after the global crisis. Overall, we find only few noticeable changes in the investment positions of East Asian economies in each other in the post-crisis period relative to the pre-crisis period. That is, the impact of the global financial crisis on intra-East Asian financial integration seems to be limited. Therefore, our evidence does not indicate that intra-Asian financial integration has increased noticeably since the global crisis.

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<sup>5</sup> Athukorala and Kohpiboon (2009) examine the export experience of East Asian economies in the aftermaths of the global financial crisis.

The rest of the paper is organized as follows. In Section 2, the magnitude of bilateral holdings of assets among East Asian countries is presented for two periods: pre-crisis period (2004-2007) and post crisis period (2008-2011). Section 3 introduces the empirical framework we use to assess changes in the behavior of foreign security holdings by East Asian economies. In Section 4, we report and discuss our main empirical findings. Finally, Section 5 brings the paper to a close with some concluding observations.

## **2. Data and Size of Bilateral Holdings of Financial Assets**

In this section we report the size of cross-border holdings of financial assets among East Asian countries for the two years of 2007 and 2011. We use the data collected from the IMF's Coordinated Portfolio Investment Survey (CPIS). The CPIS collects data on the stock of cross-border holdings of equity securities and debt securities,<sup>6</sup> and breaks down the data by the home country of the issuer. With 29 economies participating, the first CPIS was conducted in 1997. Since 2001, the CPIS has been undertaken on an annual basis. The number of participating economies has expanded to 67 economies in 2001 and gradually to 78 economies in 2011. Among the East Asia economies, eight economies, namely Hong Kong, Indonesia, Japan, Korea, Malaysia, Philippines, Singapore and Thailand are participating in the CPIS. China is not yet participating in the survey.

As seen in Table 1, the total value of foreign security holdings in the world - i.e. the countries that participated in the CPIS survey - was US\$ 39.3 trillion in 2007 and US\$ 39.5 trillion in 2011. Therefore, the global portfolio investment did not increase much between 2007 and 2011. On the contrary, the total value of foreign security holdings of the CPIS participating eight East Asian

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<sup>6</sup> Holdings of securities which constitute direct investment or held as part of reserve assets are excluded. Holdings of debt securities include both long-term and short-term debt securities. *Long-term debt securities* cover instruments such as bonds, debentures, and notes and have an original term to maturity of more than one year. *Short-term debt securities* cover treasury bills, certificates of deposit, commercial paper, and bankers' acceptances that generally give the holder the unconditional right to a stated fixed sum of money on a specified date. They have an original term to maturity of one year or less. *Equity securities* comprise all instruments and records that acknowledge claims on the residual value of corporations or quasi-corporations, after the claims of all creditors have been met. Shares, stocks, participations or similar documents (such as American Depositary Receipts) usually denote ownership of equity. See Notes and Definitions of CPIS.

countries increased from US\$ 4.0 trillion to US\$5.1 trillion during the period. This is largely due to Japan, which increased its holdings from US\$2.5 trillion to US\$3.4 trillion. Among the eight East Asian economies, Korea alone witnessed a decline in its overseas securities holdings during the period. In contrast, foreigners' holdings of the securities issued by the eight East Asian countries remained roughly the same at around US\$3.2 trillion. Among the eight East Asian countries, Japan has remained the largest country in terms of both gross and net values of foreign security holdings. In both years, Hong Kong and Singapore were the second and third largest investors. Korea ranked the fourth in terms of gross value but it recorded a negative net investment. Overall, the eight East Asian economies recorded a positive net investment position in both years, mainly due to Japan, Hong Kong, and Singapore.

By way of comparison, Table 1 also reports the trade volume of East Asian countries for the two years. Between 2007 and 2011, the world's exports increased from US\$13.9 trillion to US\$17.8 trillion, while the total value of goods exports from the 11 East Asian countries increased from US\$3.5 trillion to US\$4.9 trillion. Therefore, the share of East Asia in world exports increased from 25.2% in 2007 to 27.6 % in 2011, which is more than twice larger than East Asian share in the world's total foreign security investment.

Table 2 reports the share of intra-regional securities investment in East Asia, along with the intra-regional exports of goods for comparative purposes. In both 2007 and 2011, Hong Kong and Singapore held the first and second largest amount of foreign securities issued by other East Asian countries. At the other end, Japan, the largest investor of foreign securities among the eight East Asian countries, held the smallest intra-regional investment share, at only 2.8 % in 2007 and 2.3% in 2011. This is in large part due to the fact that Japan has the largest financial market for other East Asian investors, while its neighboring East Asian countries have much smaller financial markets. In sharp contrast, Japan's intra-regional exports share was 41.1 % in 2007 and 43.9% in 2011. Therefore, Japan's integration with other Asian financial markets is very limited despite its high level of trade integration with its neighbors.

Thailand's share increased most rapidly, from 9.6% to 43.5% between 2007 and 2011, while Indonesia, Japan, Korea, Malaysia reduced their shares of East Asian security holdings. Among the eight East Asian economies, Malaysia recorded largest intra-regional investment shares in

both years. Overall, the average intra-regional share of foreign securities held by the eight East Asian countries remained at 12.7% in 2011, which is much lower than the intra-regional share of 54.8% for goods exports from East Asian countries.

Table 3 reports the corresponding values for different types of foreign securities. It is noted that the intra-regional share of the long-term debt investment by the eight East Asian economies is the smallest: 4.4% in 2007 and 5.4% in 2011. In contrast, the intra-regional share of the short-term debt investment by the eight East Asian countries increased rapidly from 22.4% in 2007 to 51.0% in 2011, while the intra-regional share of equity holdings decreased from 25.4% to 21.4%.

Overall, intra-East Asian holdings of both equities and long-term bonds are far smaller than the share of intra-East Asian exports of goods. On the other hand, the share of intra-regional holdings of short-term bonds has grown to levels similar to that of intra-regional exports of goods. But, the absolute size of the short-term debt holdings is far smaller than that of the long-term debt holdings.

In short, integration among the financial markets of East Asia is much more limited than integration among the region's good markets and this fact has not changed much after the global financial crisis.

[Table 1]

[Table 2]

[Table 3]

Appendix Tables 1 - 4 show the geographic breakdown of total securities, equities, long-term bonds, and short-term bond holdings, respectively, among East Asian countries, as of 2007 and 2011.

### **3. Empirical Specification**

As noted in the introduction, we use the gravity equation to assess whether the global financial crisis has changed cross-border portfolio investment behavior of the four major East

Asian investors – Hong Kong, Japan, Korea, and Singapore.<sup>7</sup> Since Tinbergen (1962) and Pöyhönen (1963), the simple gravity equation, in which the volume of trade between two countries is proportional to the product of their masses (eg., GDPs) and inversely related to the distance between them, has proved empirically highly successful.

While the gravity model has largely been applied to bilateral trade in goods, it has also been applied to cross border investment flows. Portes and Rey (2005) first used the gravity model to analyze the determinants of cross-border portfolio investment. Using a sample of 14 developed economies over the 1989-1996 period, they find that the geographic distance is negatively related to cross-border portfolio investment. Because transaction fees are typically small for financial asset trade, distance was regarded as a proxy not only for transaction costs but also to a greater extent for information asymmetries

Some authors have utilized the gravity equation to investigate the financial linkages among East Asian countries. Kim, *et al.* (2005) and Lee (2008) find that financial integration in equities and debt securities among East Asian economies is relatively lower than in Europe. Using the gravity model, Garcia-Herrero, *et al.* (2009) find that Asian foreign investment is predominantly outside the Asian region due to the lack of liquidity in Asian financial markets. Lee, *et al.* (2013) find that intra regional holdings of four East Asian economies - Hong Kong, Japan, Korea and Singapore - are larger than the levels predicted by the gravity model, but this result is driven by the strong intra-regional trade linkages and if this fact is taken into account, the region is not as financially integrated.<sup>8</sup>

As noted in the introduction, this paper aims to gauge the financial linkages among the East Asian economies in the post-crisis period as compared to the pre-crisis period. Most earlier literature of the gravity model, including the above three papers, apply the ordinary least squares (OLS) to a log-linearized gravity equation in which the dependent variable is expressed in the form of natural logarithm. But Santos Silva and Tenreyro (2006) show that this might lead to biases when heteroskedacity is severe and suggest that the gravity model be estimated in its

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<sup>7</sup> Among the eight East Asian countries participating in CPIS, Indonesia, Malaysia, the Philippines, and Thailand are not included as source countries in the empirical analysis because their data are incomplete for too many partner economies.

<sup>8</sup> Lee, *et al.* (2012) also use the gravity model to assess intra-regional financial asset trade among the APEC members.



multiplicative form and use a Poisson pseudo- maximum likelihood (PPML) estimator. Following Santos Silva and Tenreyro (2006), we use the PPML estimator without taking the log of the value of assets as the dependent variable. Another advantage of the PPML is that it naturally includes observations for which the observed value is zero, while such observations are dropped from the OLS model because the logarithm of zero is undefined. In our case, this point is very important because there are many zero observations, particularly for short-term debt securities.

Thus, we use the following equation as the baseline equation:

$$Asset_{ijt} = \alpha + \beta_1 \ln Population_{jt} + \beta_2 \ln GDPPC_{jt} + \beta_3 \ln Distance_{ijt} + \beta_4 Caplib_{jt} + \beta_5 \ln \tau_{ijt} + \beta_6 EASIA_j + u_i + u_j + u_t + \varepsilon_{jt} \quad (4)$$

where

$Asset_{ijt}$ : value of the holdings of foreign securities (equities, long-term debt securities or short-term debt securities) issued in economy j by residents of economy i (Hong Kong, Japan, Korea, or Singapore) in year t,

$\ln Population_{jt}$ : natural logarithm of population of economy j in year t

$\ln GDPPC_{jt}$ : natural logarithm of GDP per capita of economy j in year t ,

$\tau_{ijt}$ : transaction costs, which takes the following specific functional form:

$$\tau_{ijt} = Dist_{ij}^{\delta_1} \times \exp\left(\delta_2 Finlib_{ijt} + \delta_3 Tax\_rate_{ijt} + \delta_4 Comlang_{ij} + \delta_5 Contig_{ij} + \delta_6 Colony_{ij} + \delta_7 OFC_j\right)$$

$Distance_{ijt}$ : geographic distance between economy i (Hong Kong, Japan, Korea, or Singapore) and j in year t,

$Finlib_{jt}$ : an index indicating the degree of financial market liberalization of economy j in year t,

$Tax\_rate_{ijt}$ : Tax rate on dividend income (for equities) or interest income (for long-term and short-term debt securities).

$Comlang_{ij}$ : dummy variable indicating that both i and j are sharing the same official language,

$Contig_{ij}$ : dummy variable indicating that both i and j are sharing the common border,

$Colony_{ij}$ : dummy variable indicating that both i and j are have former colonial ties,

$OFC_j$ : dummy variable indicating that economy j is an offshore financial centers (designated by the IMF)

$EASIA_j$ : dummy variable indicating that economy j is an East Asian economy

$u_i$ : dummy variable for the home economies,

$u_j$ : dummy variable for the partner economies,

$u_t$ : year dummy, and

$\mathcal{E}_{jt}$ : error term.

Note that all of the four East Asian economies will be considered as a group of home countries in equation and in the following equations each of the four East Asian economies will be considered as a home economy. In the equations for each East Asian economy, home country fixed effects will be dropped. Tax rate is the current highest marginal rate applied on dividends when the dependent variable is equity holdings or on interest when the dependent variable is long-term or short-term debt security holdings. Sources of the variables are explained in Appendix Table 5.

To assess whether the global financial crisis has affected the foreign investment behavior of the four East Asian economies, we estimate the above equation for the whole period (2004-2011), with inclusion of interaction terms of a dummy for the post-crisis period (2008-2011) and each of the explanatory variables. Therefore, the estimates for the explanatory variables (not the

interaction terms) for the whole period are identical to the ones that can be obtained for the pre-crisis period (2004-2007) without the inclusion of such interaction terms. The estimates for the interaction terms reveal the magnitude and significance of changes in the explanatory variables between the two sub-periods. For an easy comparison, we also present the results without the interaction terms for the post-crisis period (2008-2011).

## **4. Empirical Results**

We analyze a panel data set for the period 2004-2011 on bilateral cross-border asset holdings between each of the four East Asian source economies - Hong Kong, Japan, Korea and Singapore - and 64 partner countries for which the data are available. Most East Asian countries, including China are included in the sample of partner countries.

### **4.1. Empirical results from baseline specification**

Before presenting the results for cross-border asset holdings, Table 4 presents the results for exports of goods by each of the four economies. For comparison, the results are also obtained by the PPML estimator applied to the gravity model with the inclusion of East Asian region dummy. The first five columns (Columns 1 - 5) report the results for the whole period of 2004-2011, with inclusion of interaction terms for all explanatory variables. Columns 6-10 report the results for the post-crisis period of 2008-2011 without such interaction terms.

For all four economies, exports of goods are positively correlated with population and GDP per capita, and negatively correlated with geographic distance. Japan alone does not show a negative coefficient for distance. For Hong Kong and Singapore, common language is positively associated with exports. It is also interesting to note that the former colonial tie is not positively, but negatively associated with the exports of these four East Asian economies. The qualitative results remain similar after the global financial crisis, but the size of elasticity of some variables changes significantly. In particular, the degree of partner countries' free trade, as measured by the free trade index of Fraser Institute, was positively significant only for Hong Kong and Singapore before the crisis but became significant for all four countries.

The results also reveal that during the pre-crisis period, all four East Asian economies except

Singapore export goods to other East Asian countries beyond the "normal level" predicted by the gravity model, suggesting that these economies have a high degree of trade linkages with other East Asian economies, compared to non-East Asian economies. Specifically, the four East Asian economies as a whole export over 200 percent greater than the normal predicted by the gravity model.<sup>9</sup> The East Asia-post crisis interaction terms in columns (2) and (3) show that such an East Asian regional effect became smaller for Hong Kong and Japan. After the global financial crisis, such intra-regional trade effect became insignificant for Hong Kong (Column 5), while it became significant for Singapore (Column 8). Japan's trade is most highly integrated with other East Asian countries: during the post-crisis crisis period. Japan exports more than 800 percent greater than the normal level predicted by the gravity model.<sup>10</sup>

Table 5 reports the results when the financial gravity equation is estimated for equity holdings. Our financial gravity equation captures about 76 - 98 percent of the variance for equities. Looking at the pre-crisis period (i.e., the estimates for the explanatory variables without interaction terms in columns 1 - 5), we find that the equity holdings by the residents of the four East Asian economies are positively associated with the population size and income level of issuing economies. In contrast, geographic distance always carries a negative coefficient but is statistically significant only for Japan and Singapore during the pre-crisis period. Consistent with common wisdom, the residents of Hong Kong and Japan hold less amount of equities issued by the economies with high tax rates on interest income, but Singapore shows the opposite result. These countries appear to hold less amount of equities issued by economies with high degree of financial liberalization, which is at odds with our expectation. All of the four countries also hold far more equities issued by the offshore financial centers (OFCs). These findings do not qualitatively change after the global financial crisis, except for few cases. For example, the geographic distance carries a negative and significant coefficient only for Singapore during the post-crisis period and indeed the significance of the coefficients for the interaction terms support this finding. Another example is that Korea's equity holdings became negatively associated with the tax rates of the issuing economies.

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<sup>9</sup>204.0% =  $(\exp(1.112)-1)*100$

<sup>10</sup> 835.6% =  $(\exp(2.236)-1)*100$

Above all, we are interested in evaluating the degree of financial integration among East Asian countries. Specifically, we aim to assess whether the four East Asian economies hold more equities issued by other East Asian economies than predicted by the financial gravity model. We find no statistically significant coefficient for the East Asia dummy, suggesting that these four East Asian investors are not integrated with other East Asian economies above the level predicted by the gravity model. This is in sharp contrast with the findings for the goods exports where we find strong linkages among East Asian goods markets. This finding is also at odds with Lee, *et al* (2013) who find that the East Asian dummy is positive and significant, at least when the effects of bilateral trade are not taken account for in the regression. The difference may be due to the fact that while Lee, *et al* (2013) use the log-linear model for the panel of all these four economies taken together as a group, the present study utilizes the PPML for each of the four economies. Indeed, we also applied the OLS for these four economies taken together as a group and found a similar positive and significant coefficient for the East Asia dummy.<sup>11</sup>

Table 6 reports the corresponding results for the long-term securities. Among others, both before and after the global financial crisis, the amount of long-term securities issued by the residents of other East Asian countries held by Hong Kong, Japan and Singapore is far less than the levels by the gravity model. Korea alone appears to hold more East Asian long-term securities than the “normal” level. The insignificance of the interaction terms for East Asia dummy suggests that this finding has not changed after the global crisis.

Table 7 reports the results for short-term securities. Before global financial crisis, Japan was over-investing in short-term security markets of East Asia, while Hong Kong and Singapore were under-investing. After the crisis, Korea alone appears to hold more short-term securities issued by East Asian countries, while Hong Kong holds less.

[Table 4]

[Table 5]

[Table 6]

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<sup>11</sup> The results are not reported here for brevity but are available upon request.

[Table 7]

In order to assess the regional differences as destinations for the portfolio investments of these four East Asian economies, the above procedure is repeated with the East Asia dummy and its interaction terms replaced with those of US, EU, and other countries, respectively. Tables 8 – 11 report the results for goods exports, equities, long-term debt securities, and short-term debt securities. The findings for US equities, which seem to be the most consistent and robust, are particularly revealing. For all four economies, holdings of US equities are larger than the levels predicted by the financial gravity model. The over-investment occurs both before and after the global crisis, and the global crisis does not seem to have had any effect. This result implies that the big, deep and liquid financial markets of the advanced countries remain attractive for East Asian economies notwithstanding the economic and financial problems of those countries. This result is in contrast with the finding in Table 8 that the over-exports of three economies - Hong Kong, Japan, and Singapore - to the US have declined after the crisis. The results for the other financial assets are mixed.

[Table 8]

[Table 9]

[Table 10]

[Table 11]

## **5. Concluding Observations**

While intra-regional trade among East Asian countries has grown rapidly and has already reached high levels, intra-regional trade in financial assets lags far behind. To some extent, this asymmetry reflects the dynamism of East Asia's world-class manufacturing, which stands in sharp contrast to its relatively underdeveloped financial system. As a result, the region is forced to recycle large parts of its savings via US and other advanced countries outside the region. This paper aims to assess whether the global financial crisis has affected the financial linkages among East Asian countries and also with other major regions such as US and EU. There are some

reasons to suspect that after the global crisis, countries such as Japan, Korea, Hong Kong, and Singapore will be tempted to invest more in each other and less in advanced countries outside the region. After all, the last two major financial crises – the global financial crisis and eurozone sovereign debt crises – originated in those economies and weakened their growth prospects. Furthermore, extraordinary monetary expansion has sharply reduced their interest rates.

The central objective of our paper was to empirically analyze whether the global financial crisis has had a substantial impact on the bilateral holdings of financial assets among East Asian countries. Such an analysis can inform us about whether the global crisis has affected the degree of intra-regional financial integration in East Asia. Our empirical analysis yields a number of interesting results. The four East Asian economies do not hold more equities issued by other East Asian economies than predicted by the theory-based financial gravity model. This finding holds for both pre-crisis and post-crisis periods. This is in sharp contrast with our findings for goods trade, where we uncover strong linkages among the goods markets of the East Asian economies. For long-term debt, our evidence indicates that Hong Kong, Japan and Singapore under-invest in their neighbors whereas Korea over-invests, both before and after the crisis. For short-term debt, before crisis, Japan over-invested while Hong Kong and Singapore under-invested. After the crisis, Korea over-invested while Hong Kong under-invested.

Overall, our evidence indicates that the global financial crisis has had only a limited effect on the degree of financial integration among East Asian countries. We fail to find many meaningful changes in the investment positions of East Asian economies in each other in the post-crisis period relative to the pre-crisis period. For the most part, with the partial exception of short-term debt, our empirical results hold for both before and after the crisis. For example, East Asian countries do not over- or under-invest in the equities of their neighbors in both periods. According to our evidence, intra-Asian financial integration has not increased noticeably since the global crisis despite the weaker growth and heightened instability of advanced countries outside the region. Indeed East Asian countries continue to over-invest in some advanced-country financial assets – e.g. US equities – after the crisis, and this can be interpreted as evidence of the region’s continued financial dependence. It seems that the big, deep and liquid financial markets of the advanced countries will remain a magnet for East Asian investors for some time to come.

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**Table 1. Balance in Holdings of Total Foreign Securities vs. Goods Trade**

Holdings of Total Foreign Securities						
						Million USDr
Asian Countries	World					
	2007			2011		
	Out	In	Balance (Out-In)	Out	In	Balance (Out-In)
China	.	440,475	.	.	479,474	.
Hong Kong, China	778,580	337,600	440,980	817,818	283,541	534,277
Indonesia	2,608	60,077	-57,468	8,297	112,639	-104,342
Japan	2,523,566	1,493,235	1,030,331	3,375,244	1,437,634	1,937,611
Korea	158,606	372,887	-214,281	103,070	401,418	-298,348
Malaysia	12,935	95,295	-82,360	40,290	118,237	-77,947
Philippines	6,520	40,547	-34,028	5,478	49,245	-43,766
Singapore	508,768	171,019	337,749	770,427	171,658	598,770
Taiwan	.	161,297	.	.	165,693	.
Thailand	15,187	50,309	-35,122	22,541	69,016	-46,474
Viet Nam	.	6,278	.	.	4,412	.
Asia Total	4,006,769	3,229,019	1,385,801	5,143,166	3,292,966	2,499,779
World Total	39,305,303	39,305,303	0	39,468,696	39,468,696	0
Asia tot/World tot	10.19%	8.22%		13.03%	8.34%	

Source: Calculated by the author using IMF, Consolidated Portfolio Investment Survey (CPIIS) database

Notes: "Out" represents Asia's holdings of foreign securities. "In" represents foreign holdings of Asian securities.

Goods Trade						
						Million USD
Asian Countries	World					
	2007			2011		
	Exports	Imports	Balance (Exports - Imports)	Exports	Imports	Balance (Exports - Imports)
China	1,218,700.0	853,550.0	365,150	1,901,480.0	1,485,740.0	415,740
Hong Kong, China	344,803.0	410,597.0	-65,794	429,220.0	581,192.0	-151,972
Indonesia	114,112.0	103,863.0	10,249	203,501.0	184,013.0	19,488
Japan	714,890.0	564,214.0	150,676	824,426.0	759,370.0	65,056
Korea	373,737.0	326,152.0	47,585	562,462.0	491,626.0	70,836
Malaysia	176,216.0	145,443.0	30,773	228,294.0	199,305.0	28,989
Philippines	50,483.1	66,525.8	-16,043	48,188.9	88,787.8	-40,599
Singapore	299,871.0	232,152.0	67,719	412,201.0	320,759.0	91,442
Thailand	153,859.0	128,347.0	25,512	220,223.0	199,109.0	21,114
Viet Nam	48,561.4	59,892.6	-11,331	92,880.5	116,453.0	-23,572
Asia Total	3,495,232	2,890,736	604,496	4,922,876	4,426,355	496,522
World Total	13,894,500	14,316,100	-421,600	17,831,200	18,359,300	-528,100
Asia tot/World tot	25.2%	20.2%		27.6%	24.1%	

Source: IMF, Direction of Trade Statistics (DOTS)

**Table 2. Share of East Asia in the World:  
Holdings of Total Foreign Securities vs. Exports of Goods**

Total Portfolio Investment Holdings (million USD)							
		2007			2011		
from:	to:	East Asia	World	EASIA/World	East Asia	World	EASIA/World
Hong Kong		229,243.0	778,579.9	29.4%	269,306.9	817,817.7	32.9%
Indonesia		689.1	2,608.2	26.4%	1,264.1	8,296.9	15.2%
Japan		70,800.3	2,523,565.7	2.8%	77,907.3	3,375,244.3	2.3%
Korea		51,262.4	158,606.1	32.3%	20,863.2	103,069.9	20.2%
Malaysia		6,296.4	12,935.1	48.7%	18,760.3	40,290.0	46.6%
Philippines		1,318.2	6,519.5	20.2%	1,751.4	5,478.2	32.0%
Singapore		148,745.5	508,767.7	29.2%	254,927.1	770,427.4	33.1%
Thailand		1,457.3	15,187.2	9.6%	9,812.7	22,541.4	43.5%
<b>Total</b>		<b>509,812.2</b>	<b>4,006,769.5</b>	<b>12.7%</b>	<b>654,593.2</b>	<b>5,143,165.8</b>	<b>12.7%</b>

Source: IMF, Coordinated portfolio Investment Survey (CPIS) Database

Export of goods (million USD )							
		2007			2011		
from:	to:	East Asia	World	EASIA/World	East Asia	World	EASIA/World
Hong Kong		298,192.2	410,597.0	72.6%	418,359.0	581,192.0	72.0%
Indonesia		72,132.7	103,863.0	69.4%	127,143.9	184,013.0	69.1%
Japan		232,139.0	564,214.0	41.1%	332,476.8	759,370.0	43.8%
Korea		149,087.7	326,152.0	45.7%	210,886.1	491,626.0	42.9%
Malaysia		97,572.8	145,443.0	67.1%	134,136.1	199,305.0	67.3%
Philippines		38,730.3	66,525.8	58.2%	55,620.7	88,787.8	62.6%
Singapore		121,438.2	232,152.0	52.3%	156,193.3	320,759.0	48.7%
Thailand		75,063.4	128,347.0	58.5%	117,005.6	199,109.0	58.8%
<b>Total</b>		<b>1,084,356.3</b>	<b>1,977,293.8</b>	<b>54.8%</b>	<b>1,551,821.6</b>	<b>2,824,161.8</b>	<b>54.9%</b>

Note: East Asia includes Brunei, Cambodia, China, Indonesia, Japan, Korea, Laos, Malaysia, Myanmar, Philippines, Singapore, Thailand, and Vietnam

Source: IMF, Direction of Trade Statistics (DOTS)

**Table 3. Share of East Asia in the World:  
Holdings of Different Types of Foreign Securities**

<b>Equity Investment Holdings (million USD)</b>							
		<b>2007</b>			<b>2011</b>		
from:	to:	<b>East Asia</b>	<b>World</b>	<b>EASIA/World</b>	<b>East Asia</b>	<b>World</b>	<b>EASIA/World</b>
Hong Kong		175,931.4	514,544.0	34.2%	125,241.4	470,599.1	26.6%
Indonesia		384.8	865.6	44.5%	37.6	1,256.9	3.0%
Japan		51,706.0	573,469.4	9.0%	43,407.5	665,849.0	6.5%
Korea		47,708.7	104,857.6	45.5%	18,627.3	71,591.9	26.0%
Malaysia		5,596.2	9,422.3	59.4%	12,303.2	26,561.7	46.3%
Philippines		5.2	185.8	2.8%	17.7	57.0	31.1%
Singapore		89,835.5	258,696.9	34.7%	159,298.9	439,935.5	36.2%
Thailand		421.3	3,300.0	12.8%	919.7	5,830.5	15.8%
<b>Total</b>		<b>371,589.2</b>	<b>1,465,341.8</b>	<b>25.4%</b>	<b>359,853.2</b>	<b>1,681,681.5</b>	<b>21.4%</b>

Source: IMF, Coordinated portfolio Investment Survey (CPIS) Database

<b>Long term debt Investment Holdings (million USD)</b>							
		<b>2007</b>			<b>2011</b>		
from:	to:	<b>East Asia</b>	<b>World</b>	<b>EASIA/World</b>	<b>East Asia</b>	<b>World</b>	<b>EASIA/World</b>
Hong Kong		30,295.2	205,332.3	14.8%	48,186.6	216,758.4	22.2%
Indonesia		256.3	1,576.3	16.3%	879.3	5,726.5	15.4%
Japan		17,974.5	1,924,828.8	0.9%	33,676.4	2,683,676.3	1.3%
Korea		3,539.3	53,255.9	6.6%	2,187.2	31,259.4	7.0%
Malaysia		646.6	3,404.8	19.0%	6,399.0	13,244.1	48.3%
Philippines		866.7	4,792.0	18.1%	1,555.5	4,857.5	32.0%
Singapore		51,162.5	199,575.1	25.6%	73,078.1	254,596.8	28.7%
Thailand		508.0	4,367.8	11.6%	6,912.7	13,088.3	52.8%
<b>Total</b>		<b>105,249.2</b>	<b>2,397,133.1</b>	<b>4.4%</b>	<b>172,874.8</b>	<b>3,223,207.3</b>	<b>5.4%</b>

Source: IMF, Coordinated portfolio Investment Survey (CPIS) Database

<b>Short-term debt Investment Holdings (million USD)</b>							
		<b>2007</b>			<b>2011</b>		
from:	to:	<b>East Asia</b>	<b>World</b>	<b>EASIA/World</b>	<b>East Asia</b>	<b>World</b>	<b>EASIA/World</b>
Hong Kong		22,723.3	58,703.6	38.7%	95,476.1	130,460.2	73.2%
Indonesia		48.0	166.3	28.9%	347.2	1,313.5	26.4%
Japan		1,119.8	25,268.4	4.4%	823.4	25,719.0	3.2%
Korea		14.4	492.6	2.9%	48.8	218.7	22.3%
Malaysia		53.5	108.0	49.6%	58.1	484.2	12.0%
Philippines		72.1	1,541.8	4.7%	178.2	563.7	31.6%
Singapore		7,747.5	50,495.7	15.3%	22,550.2	75,895.1	29.7%
Thailand		527.9	7,519.3	7.0%	1,980.3	3,622.5	54.7%
<b>Total</b>		<b>32,306.5</b>	<b>144,295.6</b>	<b>22.4%</b>	<b>121,462.3</b>	<b>238,276.9</b>	<b>51.0%</b>

Note: East Asia includes Brunei, Cambodia, China, Indonesia, Japan, Korea, Laos, Malaysia, Myanmar, Philippines, Singapore, Thailand, and Vietnam

Source: IMF, Coordinated portfolio Investment Survey (CPIS) Database

**Table 4. Determinants of Goods Exports for Each Economy**

	Whole Period (2004-2011)					Post-Crisis Period (2008 - 2011)				
	All	Hong Kong	Japan	Korea	Singapore	All	Hong Kong	Japan	Korea	Singapore
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
<i>lnPOP_d</i>	0.764*** (0.035)	0.839*** (0.029)	0.876*** (0.047)	0.783*** (0.043)	0.716*** (0.052)	0.749*** (0.031)	0.957*** (0.027)	0.812*** (0.054)	0.741*** (0.049)	0.630*** (0.053)
<i>lnPCGDP_d</i>	0.700*** (0.067)	0.790*** (0.045)	1.297*** (0.130)	0.793*** (0.090)	0.852*** (0.105)	0.536*** (0.053)	0.779*** (0.045)	0.946*** (0.124)	0.533*** (0.079)	0.495*** (0.165)
<i>lnDistance</i>	0.321*** (0.071)	-0.392*** (0.110)	0.239 (0.169)	-0.294** (0.119)	-1.629*** (0.156)	0.538*** (0.065)	-0.912*** (0.102)	0.146 (0.188)	-0.283** (0.129)	-1.142*** (0.246)
<i>Freetrade_d</i>	-0.514*** (0.075)	0.379*** (0.077)	-0.130 (0.114)	0.149 (0.094)	0.267*** (0.075)	-0.530*** (0.067)	0.596*** (0.082)	0.217** (0.101)	0.392*** (0.091)	0.627*** (0.125)
<i>Comlang</i>	0.809*** (0.116)	0.866*** (0.079)			0.951*** (0.100)	0.583*** (0.127)	0.596*** (0.079)			0.612*** (0.146)
<i>Contig</i>	0.951*** (0.123)	1.601*** (0.126)			-1.383*** (0.265)	0.935*** (0.125)	1.104*** (0.108)			-0.665 (0.445)
<i>Colony</i>	-0.940*** (0.218)	-0.741** (0.310)	-0.463* (0.262)	-1.697*** (0.180)	-0.389*** (0.128)	-0.709*** (0.175)	-1.222** (0.486)	0.204 (0.223)	-1.109*** (0.141)	-1.066** (0.417)
<i>Easia_d</i>	1.112*** (0.137)	0.557*** (0.171)	2.918*** (0.257)	1.654*** (0.198)	0.218 (0.142)	0.968*** (0.114)	-0.159 (0.156)	2.236*** (0.280)	1.324*** (0.203)	0.529*** (0.215)
<i>lnPOP_d * Post Crisis</i>	-0.022 (0.047)	0.118*** (0.040)	-0.063 (0.072)	-0.042 (0.065)	-0.086 (0.075)					
<i>lnPCGDP_d * Post Crisis</i>	-0.145* (0.078)	-0.012 (0.064)	-0.351* (0.179)	-0.260** (0.119)	-0.357* (0.195)					
<i>Freetrade_d * Post Crisis</i>	0.192** (0.091)	0.217* (0.113)	0.347** (0.153)	0.243* (0.131)	0.360** (0.146)					
<i>lnDistance * Post Crisis</i>	-0.035 (0.096)	-0.521*** (0.150)	-0.093 (0.253)	0.011 (0.176)	0.486* (0.291)					
<i>Comlang * Post Crisis</i>	-0.110 (0.145)	-0.270** (0.112)			-0.339* (0.177)					
<i>Contig * Post Crisis</i>	-0.066 (0.167)	-0.497*** (0.166)			0.718 (0.518)					
<i>Colony * Post Crisis</i>	0.190 (0.272)	-0.481 (0.576)	0.667* (0.344)	0.588** (0.229)	-0.677 (0.436)					
<i>Easia_d * Post Crisis</i>	-0.145 (0.169)	-0.716*** (0.231)	-0.682* (0.380)	-0.331 (0.283)	0.311 (0.258)					
<i>Constant</i>	3.183*** (1.119)	-0.663 (0.916)	-6.853*** (2.560)	1.827 (1.989)	11.127*** (1.472)	3.339*** (1.051)	0.531 (0.940)	-4.263 (3.047)	3.343 (2.361)	11.127*** (1.473)
Number of observations	1,826	458	466	462	440	919	230	233	231	225
R2	0.855	0.992	0.896	0.937	0.929	0.884	0.993	0.891	0.938	0.933

Notes: 1. PPML estimator. 2. Year and partner dummies are included in all equations. 3. Home country dummies are included in equations for all countries. 4. Shown in parentheses are robust standard errors. 5. \*\*\*, \*\*, and \* denote one, five, and ten percent level of significance, respectively.

**Table 5. Determinants of Holdings of Equities for Each Economy**

	Whole Period (2004-2011)					Post-Crisis Period (2008 - 2011)				
	All	Hong Kong	Japan	Korea	Singapore	All	Hong Kong	Japan	Korea	Singapore
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
<i>lnPOP_d</i>	1.153*** (0.042)	1.025*** (0.148)	1.103*** (0.032)	1.008*** (0.153)	1.067*** (0.082)	1.146*** (0.041)	0.794*** (0.074)	1.115*** (0.032)	1.272*** (0.055)	0.936*** (0.071)
<i>lnPCGDP_d</i>	1.866*** (0.115)	2.595*** (0.287)	2.171*** (0.127)	1.498*** (0.304)	1.582*** (0.098)	1.785*** (0.097)	1.989*** (0.171)	2.370*** (0.122)	1.465*** (0.147)	1.184*** (0.108)
<i>lnDistance</i>	-0.120*** (0.032)	-1.371 (1.105)	-0.601* (0.343)	-0.499 (0.650)	-1.504*** (0.231)	-0.092*** (0.035)	-0.116 (0.427)	0.292 (0.296)	-0.222 (0.235)	-0.797*** (0.182)
<i>Finlib_d</i>	-0.065*** (0.006)	-0.229*** (0.052)	-0.076** (0.031)	-0.323*** (0.105)	-0.109*** (0.034)	-0.060*** (0.007)	-0.228*** (0.044)	-0.077*** (0.030)	-0.116* (0.065)	-0.025 (0.060)
<i>Tax_rate_d</i>	-0.187 (0.243)	-0.065*** (0.017)	-0.047*** (0.008)	0.007 (0.026)	0.025** (0.011)	-0.104 (0.200)	-0.034*** (0.010)	-0.063*** (0.011)	-0.064*** (0.016)	0.024*** (0.008)
<i>Comlang</i>	2.388*** (0.236)	0.860*** (0.205)			0.690*** (0.149)	2.261*** (0.276)	1.319*** (0.168)			0.855*** (0.132)
<i>Contig</i>	0.771*** (0.143)	3.370*** (1.186)			-0.787* (0.436)	1.013*** (0.153)	2.674*** (0.463)			-0.248 (0.321)
<i>Colony</i>	2.412*** (0.435)	1.453** (0.567)	-1.820*** (0.479)	-1.216 (0.834)	1.297*** (0.323)	1.747*** (0.331)	2.659*** (0.370)	0.800* (0.441)	-0.751*** (0.281)	1.174*** (0.314)
<i>OFC</i>	0.020 (0.252)	3.234*** (0.364)	1.585*** (0.269)	4.447*** (0.668)	2.009*** (0.358)	0.185 (0.234)	3.609*** (0.361)	1.943*** (0.265)	3.517*** (0.420)	1.079** (0.486)
<i>Easia_d</i>	0.060 (0.369)	-0.506 (1.634)	-0.070 (0.511)	0.114 (0.891)	-0.078 (0.347)	0.014 (0.359)	1.153* (0.634)	0.675 (0.459)	-0.269 (0.536)	0.215 (0.274)
<i>lnPOP_d * Post Crisis</i>	-0.019 (0.054)	-0.231 (0.165)	0.012 (0.045)	0.264 (0.163)	-0.125 (0.109)					
<i>lnPCGDP_d * Post Crisis</i>	-0.062 (0.149)	-0.606* (0.334)	0.199 (0.176)	-0.033 (0.337)	-0.386*** (0.147)					
<i>lnDistance * Post Crisis</i>	0.022 (0.046)	1.255 (1.184)	0.893** (0.452)	0.277 (0.691)	0.674** (0.296)					
<i>Finlib_d * Post Crisis</i>	0.004 (0.008)	0.001 (0.068)	-0.001 (0.043)	0.207* (0.124)	0.086 (0.069)					
<i>Tax_rate_d * Post Crisis</i>	0.085 (0.305)	0.032 (0.020)	-0.016 (0.013)	-0.071** (0.030)	0.001 (0.014)					
<i>Comlang * Post Crisis</i>	-0.186 (0.344)	0.459* (0.264)			0.168 (0.200)					
<i>Contig * Post Crisis</i>	0.331* (0.178)	-0.696 (1.273)			0.509 (0.543)					
<i>Colony * Post Crisis</i>	-0.879 (0.546)	1.206* (0.677)	2.620*** (0.651)	0.465 (0.880)	-0.094 (0.455)					
<i>OFC * Post Crisis</i>	0.121 (0.339)	0.374 (0.512)	0.359 (0.377)	-0.930 (0.789)	-0.922 (0.607)					
<i>Easia_d * Post Crisis</i>	0.017 (0.481)	1.660 (1.752)	0.744 (0.687)	-0.383 (1.040)	0.290 (0.444)					
<i>Constant</i>	-28.581*** (2.247)	-26.061*** (3.905)	-36.823*** (3.335)	-27.549*** (2.593)	-13.490*** (1.502)	-28.473*** (2.168)	-26.061*** (3.909)	-36.823*** (3.339)	-27.549*** (2.595)	-13.454*** (1.496)
Number of observations	1,659	436	477	432	314	847	215	239	239	151
R2	0.920	0.970	0.981	0.761	0.954	0.916	0.969	0.976	0.887	0.958

Notes: 1. PPML estimator. 2. Year and partner dummies are included in all equations. 3. Home country dummies are included in equations for all countries. 4. Shown in parentheses are robust standard errors. 5. \*\*\*, \*\*, and \* denote one, five, and ten percent level of significance, respectively.

**Table 6. Determinants of Holdings of Long-term Debts for Each Economy**

	Whole Period (2004-2011)					Post-Crisis Period (2008 - 2011)				
	All	Hong Kong	Japan	Korea	Singapore	All	Hong Kong	Japan	Korea	Singapore
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
<i>lnPOP_d</i>	0.995*** (0.032)	0.791*** (0.056)	0.955*** (0.039)	1.272*** (0.039)	1.005*** (0.082)	1.076*** (0.031)	1.070*** (0.071)	1.058*** (0.032)	1.241*** (0.033)	0.968*** (0.129)
<i>lnPCGDP_d</i>	2.153*** (0.108)	1.915*** (0.104)	2.562*** (0.155)	2.473*** (0.148)	2.012*** (0.097)	2.134*** (0.097)	1.949*** (0.116)	2.453*** (0.120)	1.918*** (0.097)	1.603*** (0.173)
<i>lnDistance</i>	-0.023 (0.027)	-1.902*** (0.404)	-0.414 (0.491)	0.461 (0.340)	-2.181*** (0.232)	0.005 (0.029)	-2.262*** (0.506)	-0.223 (0.405)	0.847*** (0.260)	-2.018*** (0.307)
<i>Finlib_d</i>	-0.019** (0.009)	-0.104* (0.057)	-0.015 (0.029)	0.082 (0.050)	-0.134*** (0.037)	-0.025*** (0.008)	0.075 (0.071)	0.004 (0.031)	0.163*** (0.038)	0.089 (0.062)
<i>Tax_rate_d</i>	-1.098*** (0.281)	-0.024** (0.010)	0.043*** (0.011)	0.086*** (0.027)	0.023*** (0.009)	-0.833*** (0.261)	-0.043*** (0.011)	0.013 (0.011)	0.043*** (0.017)	0.023* (0.013)
<i>Comlang</i>	1.546*** (0.236)	1.387*** (0.119)			0.202 (0.138)	1.675*** (0.235)	1.315*** (0.150)			0.380* (0.215)
<i>Contig</i>	0.636*** (0.196)	-0.954*** (0.354)			-1.898*** (0.234)	0.568*** (0.144)	-1.313*** (0.359)			-1.862*** (0.377)
<i>Colony</i>	1.624*** (0.599)	0.068 (0.219)	-0.182 (0.690)	-3.281*** (0.442)	0.502*** (0.188)	1.263*** (0.474)	0.066 (0.304)	0.932* (0.564)	-0.995*** (0.338)	0.460 (0.344)
<i>OFC</i>	-0.701** (0.309)	0.790** (0.373)	1.468*** (0.267)	2.234*** (0.275)	1.129*** (0.338)	-0.050 (0.290)	1.303** (0.522)	1.753*** (0.227)	2.112*** (0.233)	0.309 (0.635)
<i>Easia_d</i>	-1.878*** (0.489)	-1.959*** (0.576)	-1.484** (0.730)	2.662*** (0.460)	-1.412*** (0.413)	-1.581*** (0.464)	-2.408*** (0.639)	-1.609** (0.663)	1.751*** (0.411)	-1.079** (0.531)
<i>lnPOP_d * Post Crisis</i>	0.078* (0.041)	0.280*** (0.090)	0.103** (0.050)	-0.031 (0.052)	-0.037 (0.152)					
<i>lnPCGDP_d * Post Crisis</i>	-0.027 (0.144)	0.034 (0.156)	-0.109 (0.196)	-0.555*** (0.176)	-0.409** (0.198)					
<i>lnDistance * Post Crisis</i>	0.028 (0.040)	-0.360 (0.647)	0.191 (0.636)	0.386 (0.428)	0.163 (0.385)					
<i>Finlib_d * Post Crisis</i>	-0.007 (0.101)	0.180** (0.091)	0.019 (0.043)	0.081 (0.063)	0.223*** (0.072)					
<i>Tax_rate_d * Post Crisis</i>	0.314 (0.375)	-0.020 (0.014)	-0.030* (0.016)	-0.043 (0.032)	-0.000 (0.016)					
<i>Comlang * Post Crisis</i>	0.119 (0.338)	-0.072 (0.191)			0.178 (0.255)					
<i>Contig * Post Crisis</i>	-0.041 (0.249)	-0.360 (0.504)			0.036 (0.443)					
<i>Colony * Post Crisis</i>	-0.384 (0.746)	-0.002 (0.374)	1.114 (0.891)	2.285*** (0.556)	-0.042 (0.392)					
<i>OFC * Post Crisis</i>	0.643 (0.419)	0.513 (0.641)	0.285 (0.351)	-0.122 (0.360)	-0.819 (0.718)					
<i>Easia_d * Post Crisis</i>	0.355 (0.667)	-0.449 (0.860)	-0.125 (0.985)	-0.910 (0.617)	0.333 (0.672)					
<i>Constant</i>	-25.249*** (2.691)	-10.369*** (3.454)	-31.702*** (3.929)	-44.651*** (2.466)	-7.558*** (1.971)	-24.882*** (2.718)	-24.821*** (2.371)	-31.702*** (3.933)	-46.247*** (1.914)	-7.558*** (1.974)
Number of observations	1,625	399	477	443	306	822	-10.369***	-31.702***	-44.651***	-7.558***
R2	0.970	0.896	0.972	0.985	0.852	0.971	(3.459)	(3.933)	(2.468)	(1.974)

Notes: 1. PPML estimator. 2. Year and partner dummies are included in all equations. 3. Home country dummies are included in equations for all countries. 4. Shown in parentheses are robust standard errors. 5. \*\*\*, \*\*, and \* denote one, five, and ten percent level of significance, respectively.

**Table 7. Determinants of Holdings of Short-term Debts for Each Economy**

	Whole Period (2004-2011)					Post-Crisis Period (2008 - 2011)				
	All	Hong Kong	Japan	Korea	Singapore	All	Hong Kong	Japan	Korea	Singapore
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
<i>lnPOP_d</i>	1.193*** (0.094)	0.987*** (0.065)	1.117*** (0.062)	0.737** (0.366)	0.833*** (0.095)	1.104*** (0.081)	1.198*** (0.095)	0.955*** (0.122)	1.285*** (0.184)	0.878*** (0.153)
<i>lnPCGDP_d</i>	1.875*** (0.140)	2.367*** (0.123)	4.229*** (0.504)	2.940** (1.447)	1.910*** (0.123)	1.465*** (0.131)	1.847*** (0.162)	2.518*** (0.320)	2.296*** (0.552)	1.231*** (0.255)
<i>lnDistance</i>	0.086 (0.055)	-4.991*** (0.506)	-0.779 (1.478)	3.240 (3.223)	-3.256*** (0.339)	0.172*** (0.040)	-3.228*** (0.525)	-0.974 (0.968)	0.108 (0.600)	-1.722*** (0.358)
<i>Finlib_d</i>	-0.120*** (0.017)	-0.057 (0.045)	0.065 (0.087)	-0.118 (0.163)	-0.059 (0.052)	-0.081*** (0.013)	0.101** (0.046)	0.237*** (0.066)	0.123 (0.143)	0.121 (0.086)
<i>Tax_rate_d</i>	-2.138*** (0.304)	-0.037*** (0.010)	0.080* (0.045)	0.028 (0.046)	0.034** (0.013)	-1.288*** (0.292)	-0.065*** (0.014)	-0.113** (0.050)	0.020 (0.038)	0.027 (0.022)
<i>Comlang</i>	-0.356 (0.717)	1.548*** (0.119)			0.069 (0.181)	-0.706* (0.361)	1.018*** (0.154)			0.230 (0.255)
<i>Contig</i>	1.568*** (0.254)	-0.856** (0.338)			-2.130*** (0.431)	0.961*** (0.164)	-1.186*** (0.402)			-1.703*** (0.513)
<i>Colony</i>	-0.818* (0.436)	-0.133 (0.191)	-4.126 (2.592)	3.411 (6.085)	3.710*** (0.251)	-0.217 (0.463)	0.550** (0.231)	-1.684 (1.361)		2.326*** (0.516)
<i>OFC</i>	0.492 (0.303)	1.100** (0.478)	-0.710 (0.649)	0.429 (2.342)	0.388 (0.458)	0.399 (0.262)	0.889** (0.347)	-1.851*** (0.493)	1.568* (0.900)	0.076 (0.726)
<i>Easia_d</i>	-2.096*** (0.471)	-4.759*** (0.620)	2.531*** (0.977)	3.170 (2.134)	-2.564*** (0.504)	-0.656 (0.444)	-2.413*** (0.710)	-0.179 (0.963)	1.943* (1.053)	-0.789 (0.690)
<i>lnPOP_d</i>	-0.128 (0.109)	0.211* (0.115)	-0.162 (0.137)	0.548 (0.409)	0.045 (0.180)					
<i>lnPCGDP_d</i>	-0.429** (0.193)	-0.520** (0.203)	-1.711*** (0.597)	-0.644 (1.548)	-0.679** (0.283)					
<i>lnDistance</i>	0.075 (0.068)	1.763** (0.729)	-0.195 (1.766)	-3.131 (3.278)	1.534*** (0.493)					
<i>Finlib_d</i>	0.045** (0.020)	0.157** (0.064)	0.172 (0.109)	0.240 (0.216)	0.179* (0.100)					
<i>Tax_rate_d</i>	0.945** (0.395)	-0.028 (0.018)	-0.193*** (0.067)	-0.007 (0.059)	-0.007 (0.026)					
<i>Comlang</i>	-0.382 (0.796)	-0.530*** (0.195)			0.161 (0.312)					
<i>Contig</i>	-0.567* (0.298)	-0.330 (0.525)			0.427 (0.668)					
<i>Colony</i>	0.749 (0.606)	0.683** (0.299)	2.443 (2.927)		-1.384** (0.573)					
<i>OFC</i>	-0.061 (0.398)	-0.211 (0.591)	-1.142 (0.814)	1.140 (2.509)	-0.312 (0.856)					
<i>Easia_d</i>	1.579** (0.625)	2.346** (0.942)	-2.710** (1.371)	-1.227 (2.379)	1.775** (0.853)					
<i>Constant</i>	-15.873*** (2.404)	-3.525 (3.407)	-28.347*** (6.767)	-47.147*** (6.590)	-6.438*** (2.488)	-15.850*** (2.299)	-3.525 (3.412)	-28.347*** (6.774)	-47.147*** (6.596)	-6.438*** (2.494)
Number of observations	1,478	384	477	374	239	782	192	239	235	112
R2	0.750	0.880	0.903	0.772	0.908	0.779	0.880	0.803	0.832	0.783

Notes: 1. PPML estimator. 2. Year and partner dummies are included in all equations. 3. Home country dummies are included in equations for all countries. 4. Shown in parentheses are robust standard errors. 5. \*\*\*, \*\*, and \* denote one, five, and ten percent level of significance, respectively.



**Table 8. Summary of Region-specific Effects for Goods Exports**

	Whole Period (2004-2011)				Post-Crisis Period (2008 - 2011)			
	Hong Kong	Japan	Korea	Singapore	Hong Kong	Japan	Korea	Singapore
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
<i>Easia_d</i>	0.557*** (0.171)	2.918*** (0.257)	1.654*** (0.198)	0.218 (0.142)	-0.159 (0.156)	2.236*** (0.280)	1.324*** (0.203)	0.529** (0.215)
<i>Easia_d * Post Crisis</i>	-0.716*** (0.231)	-0.682* (0.380)	-0.331 (0.283)	0.311 (0.258)				
<i>USA_d</i>	1.069*** (0.136)	2.154*** (0.165)	1.610*** (0.143)	0.808*** (0.118)	0.650*** (0.192)	1.742*** (0.142)	1.469*** (0.160)	0.490*** (0.114)
<i>USA_d * Post Crisis</i>	-0.419* (0.235)	-0.412* (0.217)	-0.141 (0.214)	-0.318* (0.164)				
<i>EU_d</i>	0.066 (0.123)	-1.333*** (0.139)	-0.981*** (0.102)	-0.284 (0.236)	0.016 (0.107)	-1.232*** (0.130)	-1.058*** (0.114)	-0.782*** (0.228)
<i>EU_d * Post Crisis</i>	-0.050 (0.163)	0.101 (0.190)	-0.077 (0.153)	-0.498 (0.328)				
<i>Others_d</i>	-0.677*** (0.089)	-0.272 (0.177)	-0.108 (0.125)	-0.520*** (0.100)	-0.302*** (0.115)	-0.085 (0.167)	0.028 (0.132)	-0.116 (0.117)
<i>Others_d * Post Crisis</i>	0.375*** (0.145)	0.187 (0.243)	0.137 (0.181)	0.404*** (0.153)				

Notes: 1. Estimates for *Easia\_d* and *Easia\_d\*Post Crisis* are taken from Table 4. 2. All others are taken from PPML regressions where the two variables are replaced with other regional dummies. 3. Shown in parentheses are robust standard errors. 4. \*\*\*, \*\*, and \* denote one, five, and ten percent level of significance, respectively.

**Table 9. Summary of Region-specific Effects for Holdings of Equities**

	Whole Period (2004-2011)				Post-Crisis Period (2008 - 2011)			
	Hong Kong	Japan	Korea	Singapore	Hong Kong	Japan	Korea	Singapore
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
<i>Easia_d</i>	-0.506 (1.634)	-0.070 (0.511)	0.114 (0.891)	-0.078 (0.347)	1.153* (0.634)	0.675 (0.459)	-0.269 (0.536)	0.215 (0.274)
<i>Easia_d * Post Crisis</i>	1.660 (1.752)	0.744 (0.687)	-0.383 (1.040)	0.290 (0.444)				
<i>USA_d</i>	2.042*** (0.416)	0.319** (0.150)	1.496** (0.625)	1.049*** (0.301)	2.020*** (0.308)	0.373** (0.152)	0.639*** (0.245)	0.454** (0.206)
<i>USA_d * Post Crisis</i>	-0.022 (0.517)	0.055 (0.214)	-0.857 (0.671)	-0.693* (0.367)				
<i>EU_d</i>	-0.703*** (0.215)	-0.224** (0.104)	-0.400 (0.319)	-0.606*** (0.181)	-0.321 (0.210)	-0.259** (0.115)	-0.282 (0.221)	-0.678*** (0.170)
<i>EU_d * Post Crisis</i>	0.382 (0.300)	-0.035 (0.154)	0.118 (0.388)	-0.006 (0.249)				
<i>Others_d</i>	-0.268 (0.224)	0.249* (0.148)	-0.136 (0.332)	0.157 (0.288)	-1.026*** (0.189)	0.169 (0.154)	0.088 (0.198)	0.211 (0.148)
<i>Others_d * Post Crisis</i>	-0.758*** (0.293)	-0.080 (0.213)	0.224 (0.386)	0.048 (0.324)				

Notes: 1. Estimates for *Easia\_d* and *Easia\_d\*Post Crisis* are taken from Table 5. 2. All others are taken from PPML regressions where the two variables are replaced with other regional dummies. 3. Shown in parentheses are robust standard errors. 4. \*\*\*, \*\*, and \* denote one, five, and ten percent level of significance, respectively.

**Table 10. Summary of Region-specific Effects for Holdings of Long-term Debt Securities**

	Whole Period (2004-2011)				Post-Crisis Period (2008 - 2011)			
	Hong Kong	Japan	Korea	Singapore	Hong Kong	Japan	Korea	Singapore
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
<i>Easia_d</i>	-1.959*** (0.576)	-1.484** (0.730)	2.662*** (0.460)	-1.412*** (0.413)	-2.408*** (0.639)	-1.609** (0.663)	1.751*** (0.411)	-1.079** (0.531)
<i>Easia_d * Post Crisis</i>	-0.449 (0.860)	-0.125 (0.985)	-0.910 (0.617)	0.333 (0.672)				
<i>USA_d</i>	0.297 (0.274)	-0.448*** (0.162)	1.006*** (0.325)	0.608** (0.307)	0.703** (0.336)	-0.375*** (0.110)	0.410* (0.233)	1.096*** (0.332)
<i>USA_d * Post Crisis</i>	0.406 (0.432)	0.072 (0.196)	-0.596 (0.399)	0.488 (0.451)				
<i>EU_d</i>	0.619** (0.241)	0.496*** (0.083)	-0.407** (0.187)	0.959*** (0.237)	0.494* (0.289)	0.396*** (0.090)	-0.200 (0.133)	0.441 (0.320)
<i>EU_d * Post Crisis</i>	-0.125 (0.376)	-0.101 (0.122)	0.207 (0.229)	-0.519 (0.397)				
<i>Others_d</i>	-0.352** (0.165)	-0.671*** (0.152)	-0.062 (0.306)	-0.375** (0.190)	-0.370** (0.179)	-0.438** (0.177)	-0.053 (0.199)	-0.091 (0.297)
<i>Others_d * Post Crisis</i>	-0.018 (0.243)	0.233 (0.233)	0.009 (0.365)	0.284 (0.352)				

Notes: 1. Estimates for *Easia\_d* and *Easia\_d\*Post Crisis* are taken from Table 6. 2. All others are taken from PPML regressions where the two variables are replaced with other regional dummies. 3. Shown in parentheses are robust standard errors. 4. \*\*\*, \*\*, and \* denote one, five, and ten percent level of significance, respectively.

**Table 11. Summary of Region-specific Effects for Holdings of Short-term Debt Securities**

	Whole Period (2004-2011)				Post-Crisis Period (2008 - 2011)			
	Hong Kong	Japan	Korea	Singapore	Hong Kong	Japan	Korea	Singapore
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
<i>Easia_d</i>	-4.759*** (0.620)	2.531*** (0.977)	3.170 (2.134)	-2.564*** (0.504)	-2.413*** (0.710)	-0.179 (0.963)	1.943* (1.053)	-0.789 (0.690)
<i>Easia_d * Post Crisis</i>	2.346** (0.942)	-2.710** (1.371)	-1.227 (2.379)	1.775** (0.853)				
<i>USA_d</i>	-1.941*** (0.317)	0.403 (0.402)	1.619* (0.852)	0.169 (0.542)	-1.077*** (0.366)	0.312 (0.474)	0.597 (0.658)	0.641 (0.575)
<i>USA_d * Post Crisis</i>	0.864* (0.484)	-0.091 (0.621)	-1.022 (1.074)	0.472 (0.788)				
<i>EU_d</i>	0.791** (0.308)	0.065 (0.250)	-1.631** (0.638)	1.754*** (0.353)	0.792*** (0.272)	0.462 (0.283)	-0.675 (0.454)	-0.483 (0.352)
<i>EU_d * Post Crisis</i>	0.002 (0.411)	0.397 (0.377)	0.956 (0.781)	-2.237*** (0.498)				
<i>Others_d</i>	0.860*** (0.209)	-0.726* (0.428)	1.733** (0.691)	-0.035 (0.228)	0.342 (0.223)	-0.915*** (0.300)	0.861 (0.568)	1.087* (0.605)
<i>Others_d * Post Crisis</i>	-0.518* (0.305)	-0.189 (0.522)	-0.872 (0.893)	1.122* (0.645)				

Notes: 1. Estimates for *Easia\_d* and *Easia\_d\*Post Crisis* are taken from Table 7. 2. All others are taken from PPML regressions where the two variables are replaced with other regional dummies. 3. Shown in parentheses are robust standard errors. 4. \*\*\*, \*\*, and \* denote one, five, and ten percent level of significance, respectively.

**Appendix Table 1. Geographic Breakdown of Total Investment in East Asia**

		Year-end 2007 (million USD)							
to:	from:	Hong Kong	Indonesia	Japan	Korea	Malaysia	Philippines	Singapore	Thailand
Brunei	...	...	-	-	-	...	...	...	-
Cambodia	...	...	-	-	-	...	...	...	-
China, P.R.	165,721.08	0.05	15,500.71	23,267.92	106.46	53.13	18,075.49	38.58	
Hong Kong	-	423.38	18,351.22	17,069.59	1,902.31	155.12	22,124.90	154.91	
Indonesia	760.75	...	1,433.22	751.55	323.30	48.60	11,482.28	20.80	
Japan	20,827.40	23.43	-	5,366.15	219.87	83.24	33,136.38	60.44	
Korea	20,233.93	8.63	13,762.89	-	961.14	169.71	27,772.67	526.80	
Laos	-	...	-	-	...	...	...	-	
Malaysia	5,875.28	4.04	3,228.55	942.76	...	271.91	20,294.85	42.85	
Myanmar	-	...	-	-	...	...	...	0.09	
Philippines	1,103.76	2.30	1,952.49	118.88	80.75	...	2,429.27	3.44	
Singapore	8,774.34	203.81	11,314.22	1,609.76	2,250.72	500.79	...	572.41	
Taiwan	5,031.85	0.07	3,416.21	487.76	322.40	0.19	6,430.78	4.49	
Thailand	-	23.39	1,771.37	440.64	128.84	35.15	5,579.05	-	
Vietnam	914.57	...	69.46	1,207.41	0.60	0.40	1,419.83	32.47	
<b>East Asia</b>	229,242.97	689.09	70,800.34	51,262.42	6,296.39	1,318.23	148,745.51	1,457.28	
<b>World</b>	778,579.89	2,608.21	2,523,565.70	158,606.13	12,935.13	6,519.54	508,767.71	15,187.19	
<b>EASIA/World</b>	29.44%	26.42%	2.81%	32.32%	48.68%	20.22%	29.24%	9.60%	

		Year-end 2011 (million USD)							
to:	from:	Hong Kong	Indonesia	Japan	Korea	Malaysia	Philippines	Singapore	Thailand
Brunei	-	1.27	-	-	-	...	...	...	-
Cambodia	-	0.10	-	-	0.21	0.28	...	...	-
China, P.R.	193,316.46	311.53	10,650.29	6,893.72	415.68	254.80	62,462.03	556.94	
Hong Kong	-	165.60	14,513.12	5,523.20	2,375.01	169.40	19,983.13	1,467.42	
Indonesia	506.08	-	6,020.00	487.09	1,380.85	939.34	18,812.22	70.00	
Japan	35,763.18	23.02	-	4,866.60	437.63	43.11	55,008.33	142.44	
Korea	18,695.13	194.42	22,279.75	-	2,284.80	154.15	46,148.13	6,710.25	
Laos	-	-	-	283.01	...	...	...	28.85	
Malaysia	7,625.91	40.22	4,409.59	517.92	...	31.47	21,723.76	59.10	
Myanmar	-	0.01	-	-	...	...	...	1.12	
Philippines	781.79	1.58	2,830.15	131.75	264.88	...	4,461.97	1.64	
Singapore	8,620.82	508.09	12,202.18	778.11	10,682.37	117.10	...	765.88	
Taiwan	3,696.35	3.64	2,461.86	720.95	412.26	-	17,571.78	0.40	
Thailand	...	13.38	2,399.66	413.20	490.47	42.04	8,272.35	-	
Vietnam	301.20	1.23	140.73	247.48	16.05	-	483.44	8.68	
<b>East Asia</b>	269,306.93	1,264.10	77,907.33	20,863.23	18,760.30	1,751.41	254,927.14	9,812.72	
<b>World</b>	817,817.66	8,296.94	3,375,244.30	103,069.93	40,289.96	5,478.25	770,427.38	22,541.39	
<b>EASIA/World</b>	32.93%	15.24%	2.31%	20.24%	46.56%	31.97%	33.09%	43.53%	

Source: IMF, Coordinated Portfolio Investment Survey (CPIS) Database

**Appendix Table 2. Geographic Breakdown of Equity Investment in East Asia**

		Year-end 2007 (million USD)							
to:	from:	Hong Kong	Indonesia	Japan	Korea	Malaysia	Philippines	Singapore	Thailand
Brunei	-	...	-	-	-	...	...	...	-
Cambodia	-	...	-	-	-	...	...	...	-
China, P.R.	152,985.58	0.05	15,042.71	23,066.12	100.41	...	...	16,816.45	7.72
Hong Kong	-	351.08	17,501.33	15,301.59	1,832.15	...	...	17,187.69	104.44
Indonesia	467.60	...	800.35	560.84	212.31	...	...	4,046.63	18.28
Japan	8,540.02	3.48	...	4,812.72	200.21	0.22	...	19,966.84	13.73
Korea	3,574.57	...	5,618.36	-	666.26	...	...	11,209.92	8.00
Laos	-	...	-	-	-	...	...	...	-
Malaysia	1,963.85	1.00	1,158.09	701.12	...	...	...	9,452.43	3.67
Myanmar	-	...	-	-	-	...	...	...	-
Philippines	388.90	...	317.76	104.89	37.20	...	...	963.98	0.96
Singapore	4,285.71	5.74	6,457.25	1,264.16	2,109.78	3.30	...	...	256.46
Taiwan	3,603.41	0.07	3,360.24	371.10	317.56	...	...	5,788.16	4.49
Thailand	...	23.39	1,443.99	325.17	119.76	1.68	...	3,933.98	-
Vietnam	121.77	...	5.95	1,201.01	0.60	...	...	469.38	3.58
<b>East Asia</b>	175,931.42	384.80	51,706.04	47,708.72	5,596.25	5.20	...	89,835.47	421.34
<b>World</b>	514,544.00	865.61	573,469.44	104,857.60	9,422.35	185.78	...	258,696.93	3,300.05
<b>EASIA/World</b>	34.19%	44.45%	9.02%	45.50%	59.39%	2.80%	...	34.73%	12.77%

		Year-end 2011 (million USD)							
to:	from:	Hong Kong	Indonesia	Japan	Korea	Malaysia	Philippines	Singapore	Thailand
Brunei	-	-	-	-	-	...	...	...	-
Cambodia	-	-	-	-	0.21	0.28	...	...	-
China, P.R.	112,074.82	13.15	10,112.93	6,661.78	387.83	0.67	...	58,821.93	189.78
Hong Kong	-	17.27	12,447.87	4,829.94	1,870.41	1.07	...	11,005.13	221.54
Indonesia	...	...	3,389.34	401.68	679.36	0.33	...	6,152.30	35.50
Japan	5,067.41	-	...	4,121.91	375.91	...	...	30,338.76	14.47
Korea	1,160.39	3.34	4,684.78	-	354.81	1.81	...	21,080.42	0.58
Laos	-	...	-	283.01	...	...	...	...	28.85
Malaysia	774.58	-	1,678.39	274.86	...	0.17	...	11,539.22	7.99
Myanmar	-	-	-	-	-	...	...	...	1.12
Philippines	160.45	-	267.09	109.21	20.20	...	...	1,716.26	1.64
Singapore	3,432.36	-	6,774.28	689.18	7,860.37	13.09	...	...	409.55
Taiwan	2,571.37	2.02	2,431.21	696.91	412.26	...	...	13,371.12	-
Thailand	...	1.85	1,515.82	311.56	325.68	0.59	...	4,938.02	-
Vietnam	...	-	105.80	247.01	16.05	...	...	335.70	8.68
<b>East Asia</b>	125,241.39	37.62	43,407.50	18,627.26	12,303.16	17.72	...	159,298.86	919.70
<b>World</b>	470,599.06	1,256.90	665,849.05	71,591.87	26,561.65	56.97	...	439,935.50	5,830.54
<b>EASIA/World</b>	26.61%	2.99%	6.52%	26.02%	46.32%	31.11%	...	36.21%	15.77%

Source: IMF, Coordinated Portfolio Investment Survey (CPIS) Database

**Appendix Table 3. Geographic Breakdown of Long-term Debt Investment in East Asia**

		Year-end 2007 (million USD)							
to:	from:	Hong Kong	Indonesia	Japan	Korea	Malaysia	Philippines	Singapore	Thailand
Brunei	...	...	-	-	-	...	...	...	-
Cambodia	-	...	-	-	-	...	...	...	-
China, P.R.	5,440.11	...	-	458.00	201.80	6.05	...	1,247.49	15.23
Hong Kong	-	...	65.73	849.01	1,768.00	68.35	154.80	4,819.99	42.44
Indonesia	...	...	...	603.79	190.71	110.99	...	6,025.98	0.64
Japan	2,835.22	...	...	...	540.43	19.66	11.78	12,963.46	46.71
Korea	13,125.81	...	8.63	8,117.29	-	294.87	169.19	15,342.87	278.22
Laos	-	...	-	-	-	...	...	...	-
Malaysia	3,613.15	...	3.04	2,031.44	240.25	...	...	6,228.74	39.18
Myanmar	-	...	-	-	-	...	...	...	0.09
Philippines	592.07	...	2.05	1,634.73	13.99	43.55	...	1,348.42	2.48
Singapore	2,834.07	...	176.82	3,871.57	345.60	89.22	497.49	...	54.16
Taiwan	1,130.42	...	...	55.97	116.66	4.84	...	626.15	-
Thailand	...	...	...	289.24	115.45	9.07	33.47	1,620.43	-
Vietnam	724.35	...	...	63.51	6.41	...	...	938.99	28.89
<b>East Asia</b>	30,295.20	...	256.27	17,974.54	3,539.30	646.61	866.73	51,162.53	508.03
<b>World</b>	205,332.31	...	1,576.34	1,924,828.83	53,255.88	3,404.81	4,792.00	199,575.09	4,367.84
<b>EASIA/World</b>	14.75%	...	16.26%	0.93%	6.65%	18.99%	18.09%	25.64%	11.63%

		Year-end 2011 (million USD)							
to:	from:	Hong Kong	Indonesia	Japan	Korea	Malaysia	Philippines	Singapore	Thailand
Brunei	-	...	1.27	-	-	-	...	...	-
Cambodia	-	...	0.10	-	-	-	...	...	-
China, P.R.	18,222.52	...	293.28	515.61	218.13	27.85	140.53	3,517.09	270.22
Hong Kong	-	...	115.10	1,892.40	671.09	504.60	136.97	6,056.82	606.99
Indonesia	...	...	...	2,622.72	85.41	690.39	939.01	10,407.09	34.50
Japan	9,370.03	...	22.59	...	744.68	61.73	10.94	18,016.04	125.37
Korea	12,605.24	...	191.09	17,056.14	-	1,930.00	152.35	18,633.10	5,604.86
Laos	-	...	-	-	-	...	...	...	-
Malaysia	3,351.10	...	40.22	2,730.57	242.39	...	30.28	8,653.79	51.11
Myanmar	-	...	0.01	-	-	...	...	...	-
Philippines	395.21	...	1.58	2,563.06	22.54	244.68	...	1,770.04	-
Singapore	3,632.86	...	204.61	5,389.30	76.75	2,777.99	104.01	...	219.23
Taiwan	609.62	...	1.62	30.65	24.04	-	...	3,314.31	0.40
Thailand	...	...	6.63	841.06	101.64	161.75	41.45	2,582.06	-
Vietnam	...	...	1.19	34.93	0.47	-	...	127.76	-
<b>East Asia</b>	48,186.59	...	879.31	33,676.45	2,187.15	6,398.98	1,555.53	73,078.11	6,912.68
<b>World</b>	216,758.35	...	5,726.52	2,683,676.27	31,259.41	13,244.13	4,857.55	254,596.79	13,088.32
<b>EASIA/World</b>	22.23%	...	15.35%	1.25%	7.00%	48.32%	32.02%	28.70%	52.82%

Source: IMF, Coordinated Portfolio Investment Survey (CPIS) Database

**Appendix Table 4. Geographic Breakdown of Short-term Debt Investment in East Asia**

		Year-end 2007 (million USD)							
to:	from:	Hong Kong	Indonesia	Japan	Korea	Malaysia	Philippines	Singapore	Thailand
Brunei	...	...	-	-	-	...	...	...	-
Cambodia	...	...	-	-	-	...	...	...	-
China, P.R.	7,295.39	...	-	-	-	...	...	11.55	15.63
Hong Kong	-	...	6.57	0.88	-	1.81	0.31	117.21	8.03
Indonesia	...	...	...	29.08	-	...	...	1,409.66	1.88
Japan	9,452.03	...	19.94	...	13.00	...	71.24	206.09	-
Korea	3,533.55	...	...	27.24	-	...	0.52	1,219.88	240.58
Laos	-	...	-	-	-	...	...	...	-
Malaysia	298.15	...	...	39.02	1.39	...	...	4,613.68	-
Myanmar	-	...	-	-	-	...	...	...	-
Philippines	122.80	...	0.25	-	-	...	...	116.87	-
Singapore	1,654.68	...	21.25	985.40	-	51.72	...	...	261.79
Taiwan	298.15	...	-	-	-	...	...	16.47	-
Thailand	...	...	...	38.13	0.01	...	...	24.64	-
Vietnam	68.58	...	-	-	-	...	...	11.46	-
<b>East Asia</b>		22,723.32	48.02	1,119.76	14.40	53.53	72.07	7,747.52	527.91
<b>World</b>		58,703.58	166.26	25,268.42	492.65	107.97	1,541.76	50,495.69	7,519.30
<b>EASIA/World</b>		38.71%	28.88%	4.43%	2.92%	49.58%	4.67%	15.34%	7.02%

		Year-end 2011 (million USD)							
to:	from:	Hong Kong	Indonesia	Japan	Korea	Malaysia	Philippines	Singapore	Thailand
Brunei	-	-	-	-	-	...	...	...	-
Cambodia	-	-	-	-	-	...	...	...	-
China, P.R.	63,019.12	...	5.10	21.75	13.81	-	113.61	123.01	96.94
Hong Kong	-	...	33.24	172.86	22.17	-	31.36	2,921.19	638.89
Indonesia	238.88	...	...	7.93	-	11.10	...	2,252.82	-
Japan	21,325.74	...	0.43	...	-	-	32.17	6,653.53	2.60
Korea	4,929.50	...	...	538.84	-	...	...	6,434.62	1,104.81
Laos	-	...	-	-	-	...	...	...	-
Malaysia	3,500.23	...	...	0.63	0.66	...	1.02	1,530.74	-
Myanmar	-	...	-	-	-	...	...	...	-
Philippines	226.26	...	-	-	-	...	...	975.66	-
Singapore	1,555.60	...	303.48	38.60	12.17	44.01	...	...	137.10
Taiwan	515.23	...	-	-	-	...	...	886.35	-
Thailand	...	...	4.89	42.78	-	3.04	...	752.27	-
Vietnam	165.60	...	0.04	-	-	...	...	19.98	-
<b>East Asia</b>		95,476.14	347.18	823.38	48.81	58.15	178.16	22,550.17	1,980.34
<b>World</b>		130,460.24	1,313.52	25,718.98	218.66	484.17	563.73	75,895.09	3,622.53
<b>EASIA/World</b>		73.18%	26.43%	3.20%	22.32%	12.01%	31.60%	29.71%	54.67%

Source: IMF, Coordinated Portfolio Investment Survey (CPIS) Database

## Appendix Table 6. Data Sources

- Bilateral securities holdings: in millions of US dollars, International Monetary Fund, *Coordinated Portfolio Investment Survey* (<http://www.imf.org/external/np/sta/pi/cpis.htm>)
- Bilateral imports: in millions of US dollars, from International Monetary Fund, *Direction of Trade* (<http://www.imfststatistics.org/DOT/>);
- Population and GDP per capita, from World Bank, *World Development Indicators* (<http://data.worldbank.org/data-catalog/world-development-indicators>);
- Bilateral distance: weighted distances in km, which use city-level data to assess the geographic distribution of population inside each nation, from Centre d'Etudes Prospectives et d'Informations Internationales (CEPII)'s website (<http://www.cepii.fr/anglaisgraph/bdd/distances.htm>)
- Financial market liberalization index (*Finlib*): Column 4Dii (Capital controls) of the *Economic Freedom of the World 2012 Data* published by the Fraser Institute (<http://www.freetheworld.com>). This index measures restrictions on foreign restrictions and capital controls, and takes a value between 0 and 1. The higher the value, the lower the restrictions on foreign investment and capital controls, and hence the more liberalized is the capital market. The most recent year is 2010. We allow for one year lag for this variable.
- Free trade index (*Freetrade*): Column 4B (Regulatory trade barriers) of the *Economic Freedom of the World 2012 Data* published annually by the Fraser Institute. This index is a composite measure of tariffs, non-tariff trade barriers, and compliance costs of trading, and takes a value between 0 and 1. The higher the value, the lower the restrictions on trade and hence more liberalized is foreign trade. The most recent year is 2010. We allow for one year lag for this variable.
- Geography variables (*Comlang*, *Contig*, *Colony*): from CEPII's website, (<http://www.cepii.fr/anglaisgraph/bdd/distances.htm>)
- Tax rate on dividend income and interest income (*Tax\_rate*): International Bureau of Fiscal Documentation (IBFD) Tax Treaties Database ([http://www.ibfd.org/portal/Product\\_treaties.html](http://www.ibfd.org/portal/Product_treaties.html))
- Offshore financial centers (OFC) as defined by the International Monetary Fund (IMF)

**Appendix Table 5. List of Economies included in the Empirical Studies**

<b>Region</b>	<b>Economy</b>	<b>No. of Economy</b>
East Asia	Brunei Darussalam, China (Mainland), Hong Kong, Indonesia, Japan, Korea, Malaysia, Philippines, Singapore, Thailand, Vietnam	11
EU	Austria, Belgium, Bulgaria, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Luxembourg, Malta, Netherlands, Poland, Portugal, Romania, Slovak Republic, Spain, Sweden, United Kingdom	24
USA	United States	1
Others	India, Kazakhstan, Pakistan, Costa Rica, Mexico, Panama, Bahrain, Israel, Kuwait, Lebanon, Egypt, Bermuda, Canada, Australia, New Zealand, Papua New Guinea, Argentina, Brazil, Chile, Colombia, Peru, Venezuela, South Africa, Barbados, Iceland, Norway, Russia, Switzerland, Turkey	29
Total		65