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CAPITAL FLOWS AND RAPID-GROWTH MARKETS: 1995-2010

IEMS EMERGING MARKET BRIEF

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I.
Introduction

The past fifteen years have seen important shifts that have reshaped the global landscape of international capital investments. This new landscape is characterized by the rise of the rapid-growth markets (RGMs).[1] The major RGMs in the world, represented by the BRICs, have become important hubs of world capital flows and have received massive capital inflows in the past decade. Although disrupted by the 2007-08 global financial crisis, capital inflows to the RGMs recovered strongly during the early post-crisis period. On the one hand, for RGM economies that are usually capital scarce, capital inflows can increase their investment level and thus promote economic growth. Foreign investment can also bring in the latest technologies and help the RGMs to overcome technological bottlenecks in the path of their development. On the other hand, however, rapid capital inflow (and its reversal) may be associated with volatile financial markets, increased inflation, and the creation/burst of financial bubbles (e.g., bubbles in the stock market) in the receiving country. Given that expansionary monetary policies in the advanced economies are likely to continue in the foreseeable future, it is important for RGMs to carefully monitor the trend of international capital inflows.

This project aims to document the changing pattern of capital flows to the RGMs and to examine the underlying factors. The future trend of the capital flows to RGMs and the implications of this trend will also be discussed. Specifically, we investigate several central questions related to the capital flows to the RGMs from 1995 to 2010. First, what is the basic trend of capital inflows to the RGMs in the past 15 years? Both the aggregate trend and the trend of the capital inflows to the major RGMs (e.g., BRICs) are examined. In addition to individual country analyses, the RGMs are divided into subgroups (i.e., Developing Asia, Africa and Middle East, South and Central America, and Eastern Europe) and the trend of capital flows to these different regions is examined. The second theme of this report is to examine various country-level factors that affect the capital inflows to the RGMs. We cover a large set of macroeconomic and institutional indicators (e.g., economic growth, exchange rate change, monetary and fiscal policies, and institutional development) of the RGM economies. Furthermore, we study the impact of the 2007-08 global financial crisis on the capital flows to the RGM economies. The third session of this project discusses the future trend of capital flows to the RGMs and provides some discussions about the policy options for RGMs to cope with volatile international capital flows. The final session summarizes the discussions.

1/ The rapid-growth markets (RGMs) consist of 25 developing countries with strong growth and future potential, considerable size and population, and strategic importance for business (Ernst & Young, 2011).

II.
Pattern of Capital Flows to the RGMs: 1995-2010

Since the 1990s, the composition of international capital flows has shifted away from bank loans[2] toward foreign direct investment (FDI) and portfolio investment (PI). Therefore, the latter two forms of cross-border capital flows are the focus of this report. FDI and PI have different characteristics and thus may have very different macroeconomic impacts on the host country. For instance, it is more difficult to pull out of FDI or to sell it off. Consequently, direct investors may be more committed to managing their international investments and less likely to pull out at the first sign of trouble. On the other hand, it is very easy for PI investors to sell off securities and pull out of foreign portfolio investments. Hence, PI can be much more volatile than FDI (see Text Box 1 for the formal definitions of FDI and PI).

Our analysis covers 22 major RGMs as defined by Ernst & Young (2011), including the following countries[3] during 1995-2010: Argentina, Brazil, Chile, China (mainland), Colombia, Czech Republic, Egypt, India, Indonesia, Kazakhstan, Malaysia, Mexico, Nigeria, Poland, Russia, Saudi Arabia, South Africa, South Korea, Thailand, Turkey, Ukraine, and Vietnam. Table 1 presents the FDI and PI flows (net value) to these 22 RGMs throughout the period.

Text Box 1. Explanation of the basic concepts

Foreign direct investment (FDI) refers to the net inflows of investment to acquire a lasting management interest (10% or more of voting stock) in an enterprise operating in an economy other than that of the investor. It usually involves participation in management, entering into a joint-venture agreement, and transfer of technology and expertise. There are two types of FDI: inward FDI and outward FDI, resulting in a net FDI flow (the difference between inward FDI and outward FDI).
A portfolio investment is a passive investment in securities, none of which entails active management or control of the securities' issuer by the investor.

Trend of FDI flows to RGMs

FDIs are the dominant form of capital flows to the RGMs, and they accounted for 79% of the overall flows. Figure 1 plots the trend of annual FDI flows (net value, inward, and outward volumes, respectively) to the group of 22 RGMs from 1995 to 2010. The inward FDIs to RGMs remained flat in the late 1990s and early 2000s due to the 1997-98 Asian financial crisis. After that, they surged by more than 350% between 2003 and 2008, driven by the rapid growth of the RGM economies and their international trade relations during the period. The booming FDIs to the RGMs were disrupted by the 2007-08 global financial crisis, when they declined by 35%. Nonetheless, they recovered rapidly during the early post-crisis period and surged by 25% in 2010.

Among the 22 major RGMs, China is by far the largest receiving country of FDIs, accounting for 39.5% of the overall net FDI inflows to

2/ Cross-border bank lending has been muted since the debt crisis of the 1980s. See Eichengreen and Fishlow (1996).
3/ The country list is based on the RGM25 defined by Ernst & Young (2011). Ghana, Qatar, and United Arab Emirates are excluded due to lack of data. China in our sample refers to mainland China (excluding Hong Kong, Taiwan, and Macau). The data sources are Bloomberg, CEIC databases, and the World Economic Outlook Databases of the IMF.

Table 1: FDI and PI flows to RGMs (1995-2010)

	FDI flows			PI flows		
	1995-2000	2001-2005	2006-2010	1995-2000	2001-2005	2006-2010
Argentina	51.71	13.06	25.80	22.35	-31.70	14.12
Brazil	120.33	69.96	115.65	69.81	0.40	172.39
Chile	19.92	17.91	33.36	-2.15	-20.34	-34.49
China	229.17	290.41	562.90	-9.48	-3.56	56.50
Colombia	13.79	13.05	26.44	4.91	-2.54	0.52
Czech Republic	19.81	31.14	22.18	1.05	-3.22	12.81
Egypt	5.14	7.71	39.73	1.64	4.45	-2.01
India	15.43	18.69	69.02	12.17	33.27	87.29
Indonesia	7.18	0.33	21.20	0.89	11.83	35.15
Kazakhstan	7.43	14.79	40.76	0.60	-8.83	-6.89
Malaysia	20.79	6.25	-21.49	-4.23	3.86	-0.44
Mexico	76.29	103.96	76.89	21.14	9.74	32.46
Nigeria	7.41	11.91	29.01	0.18	0.84	0.94
Poland	35.54	32.67	51.09	8.77	27.28	28.77
Russia	6.93	0.16	18.72	45.08	-12.96	-18.02
Saudi Arabia	1.66	10.94	130.72	3.31	-40.29	-56.63
South Africa	-0.46	17.91	13.83	22.74	3.17	36.96
South Korea	5.80	3.63	-76.79	61.34	27.42	36.59
Thailand	22.23	25.76	26.08	11.85	6.05	-1.03
Turkey	2.76	15.99	70.63	0.18	18.82	19.55
Ukraine	3.19	12.12	35.27	1.90	5.98	10.81
Vietnam	9.00	7.65	32.11	--	--	9.28
Total volume	681.02	725.98	1343.11	274.06	29.67	434.63
Variation among RGMs	0.026	0.036	0.06	0.023	0.032	0.056
Volatility of total volume	0.18	0.37	0.36	1.05	2.41	1.73

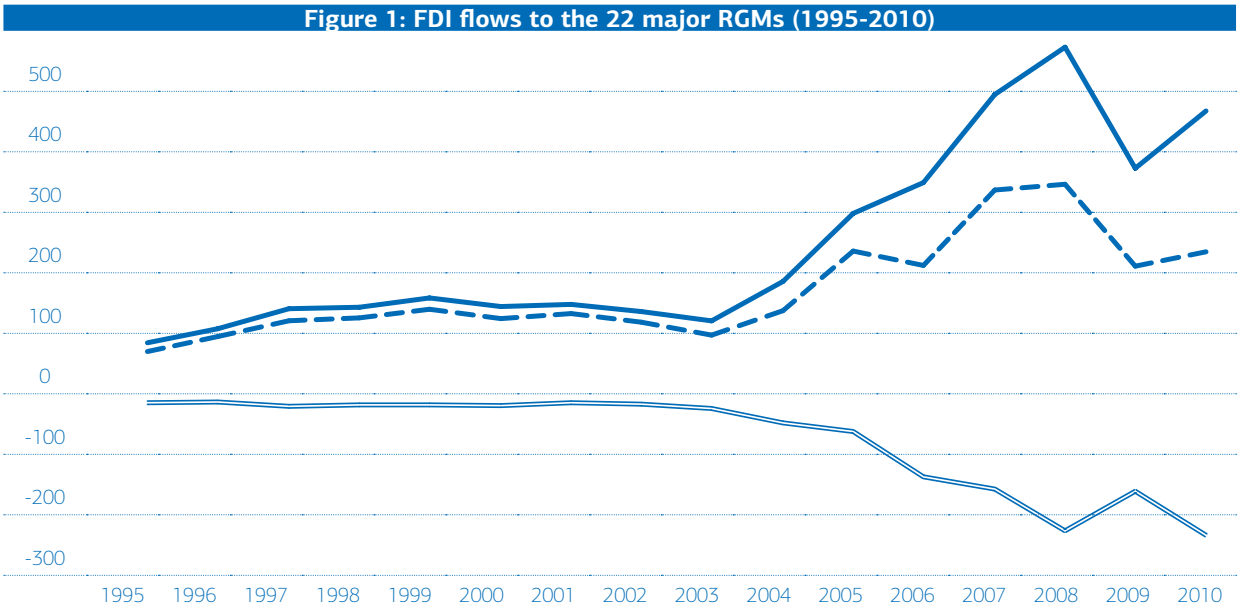
Note: RGMs consist of 22 rapid-growth markets identified by Ernst & Young. Unit of measure: billion US$ (2000 price), net values. "Variation among RGMs" is calculated as the average of the standard deviation of the annual capital flows (scaled by the country's GDP) among the 22 RGMs within a five-year period. "Volatility of total volume" is calculated as the standard deviation of the year-to-year percentage change of the total capital flows to RGMs within a five-year period.
Source: CEIC and IEMS calculations.

the RGMs during 1995-2010 (Figure 2). Brazil took second place (11.1%). Among the top five net FDI-receiving countries, Brazil and Mexico received a share of FDI inflows that is consistent with their relative size of GDP (as measured by their share of GDP in the overall GDP of the 22 RGMs), while China received proportionally more (39.4% of net FDI inflows vs. 25.7% of GDP), as did Poland (4.3% vs. 2.8%). In comparison, India accounted for an insignificant share of the net FDI inflows (3.8%), even though it is now the second largest RGM economy in the world and accounted for 8.8% of the GDP of the RGMs during 1995-2010. Interestingly, some RGM economies have transformed from net FDI receivers to net FDI providers over time. South Korea, although still counted as a RGM economy by Ernst & Young, received negative overall FDI inflows for the period of 1995-2010, meaning that the country has made more outward FDIs than it received from other countries. Malaysia has also been a net FDI provider since 2000, although on a much smaller scale than South Korea.

FDIs from the developed markets, the traditionally major providers of FDIs to RGMs, have declined since 2007 as a result of the global financial crisis and the sluggish economic recovery in these countries. On the contrary, the annual outward FDI flows from the RGMs, led by the BRICs, had increased significantly during the same period, and the peak value of such outflows reached US$225 bln (2000 price) in 2008, a growth of more than 10 times in six years. Therefore, the dramatic rebound of the inward FDI flows to the RGMs since 2009 is mainly explained by the intra-RGM FDI flows.

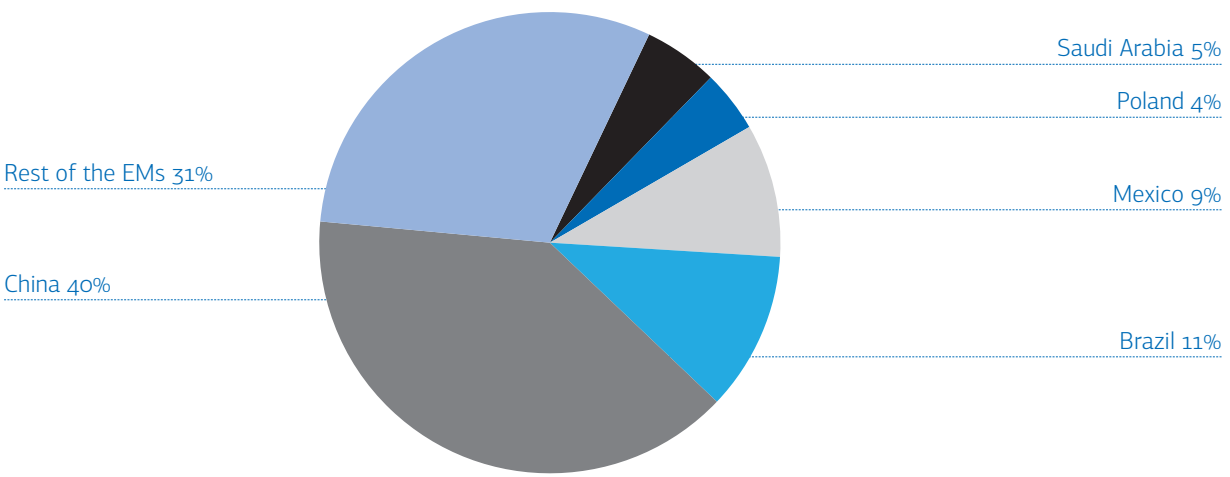
China's outward FDIs have accelerated since 2000 as a result of a change in government policy that strongly encourages Chinese enterprises to "go global." As an illustration, Figure 3 presents the outward FDI flows from China between 2003 and 2010. According to the National Bureau of Statistics of China (NBSC), the overall outward FDIs of the country increased from US$2.85 bln in 2003 to US$68.81 bln in 2010 (current price), a stunning growth of more than 23 times in just seven years. The bulk of this investment has been into the primary and tertiary sectors. Although the central bank of China does not report the amount of outward

Figure 1: FDI flows to the 22 major RGMs (1995-2010)



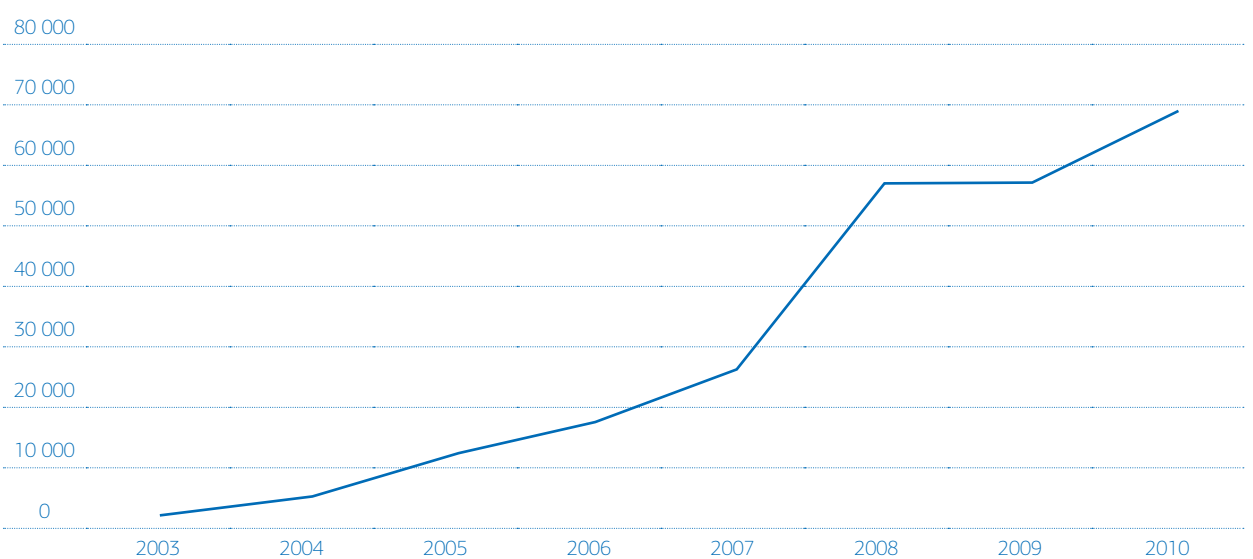
Legend: Net FDI ------- FDI Inflow ——— FDI Outflow ———
Note: RGMs consist of 22 rapid-growth markets specified by Ernst & Young. Outward FDIs are shown in negative values. Unit of measure: million US$ (2000 price). Source: CEIC and IEMS' calculations.

Figure 2: Distribution of FDI flows among RGMs (1995-2010)



Note: RGMs consist of 22 rapid-growth market specified by Ernst & Young.
Source: CEIC and IEMS' calculations.

Figure 3: Outward FDI flows from China (2003-2010)



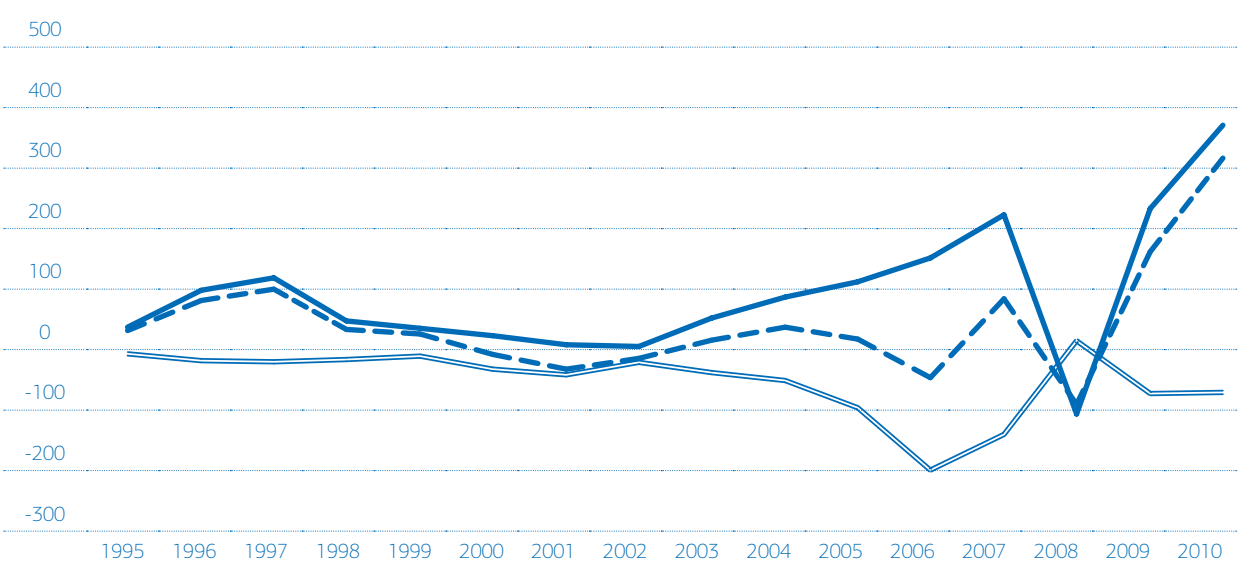
Legend: Outward FDIs (US$ mln)
Note: The unit of measure is million US$ (current price).
Source: National Bureau of Statistics of China (NBSC) and IEMS' calculations.

FDIs to developing countries as a whole, evidence shows that a significant portion of China's outward capital flows may have gone into other RGM economies, as can be seen from the sectoral distribution of these investments.[4] Similar to China, Russian investments in developing countries increased faster than its overall outward FDIs, a growth of more than 160% from 2007 to 2010, according to the Bank of Russia database. Oil, gas, and metals are the main industries attracting outward FDIs of Russian MNCs (Rosstat, 2011). As the world's 21st largest outward investor, India has seen its annual FDI outflows surging 50 fold since 2000, and Indian firms have invested over US$75 bln in the past decade. The majority of these outward FDIs (68% in 2009-10) focused on trading and textile investment in developing countries, according to the Indian Central Bank.

Trend of PI flows to RGMs

Compared with FDIs, portfolio investments to the RGMs are more volatile both in terms of the direction of the flow and its magnitude (Figure 4 and Table 1). Net PI to the RGMs was positive in most of the 1990s, although the 1997-98 Asian financial crisis clearly had a negative impact on the inward PIs. The PI flows were mainly stable in the early years of the 2000s, but the direction of net PI flows changed four times between 2006 and 2009, showing significant volatility as a result of the global financial crisis. During the early post-crisis period, the RGMs experienced a historically high volume of PI inflows, and its size almost tripled in less than two years. This dramatic increase was, at least partially, driven by the near-zero interest rates in the major industrialized countries. In response to the financial crisis, the US started to aggressively cut its policy interest rate in September 2007, followed by the UK and some

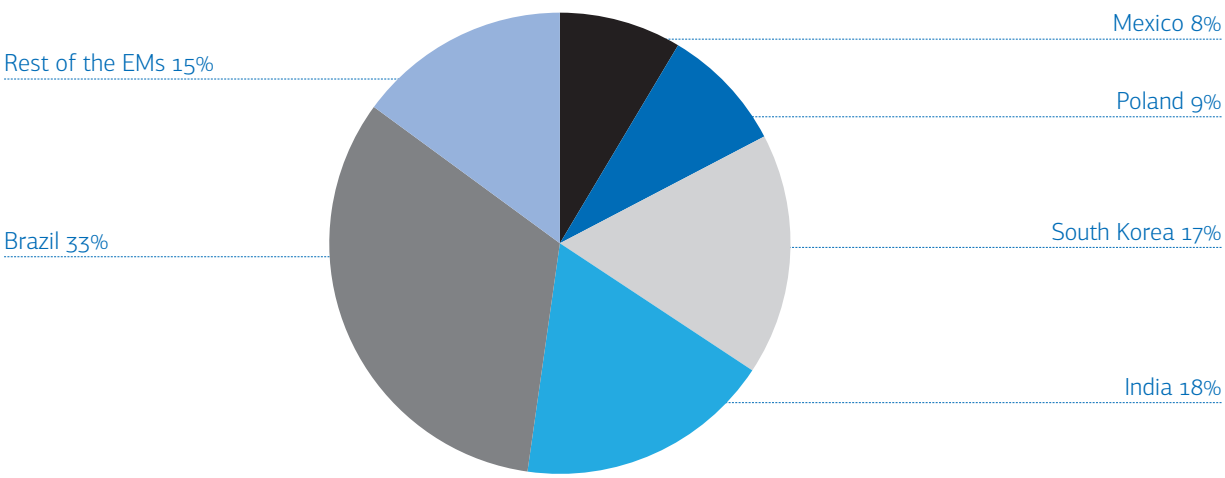
Figure 4: PI flows to the 22 major RGMs (1995-2010)



Legend: Net PI ------- PI Inflow ——— PI Outflow ═══
Note: RGMs consist of 22 rapid-growth markets specified by Ernst & Young. Outward PIs are shown in negative values. Unit of measure: million US$ (2000 price), net value. Source: CEIC and IEMS' calculations.

4/ For instance, China's direct investment in Africa has surged from a mere US$317 mln in 2004 to about US$2.11 bln (current price) in 2010.

Figure 5: Distribution of PI flows among RGMs (1995-2010)



Note: RGMs consist of 22 rapid-growth markets specified by Ernst & Young.
Source: CEIC and IEMS' calculations.

other developed countries in December of the same year. The RGM economies that had little exposure to the initial outbreak of the crisis did not cut their interest rates for some time and some of them (such as Brazil) even raised interest rates as a result of the rapidly rising commodity prices. It was not until late 2008 that the major RGM economies started to ease their policy rates in response to the declining world demand. The resumed capital inflows to many RGM economies after the second and third quarters of 2009 consisted primarily of portfolio equity and fixed-income investments, with net cross-border bank flows remaining negative. These inward PI flows were welcomed by the RGMs, although they may also have brought back pressures on the exchange rate and inflated equity valuations (IMF, 2010).

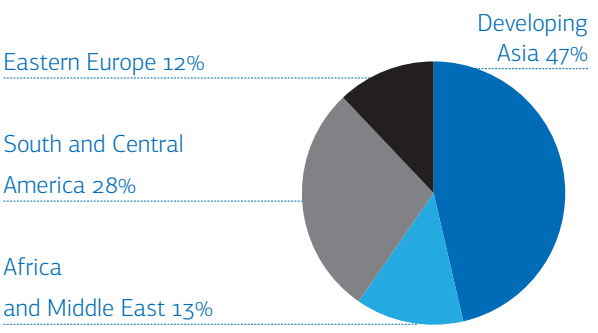
Unlike the FDIs that are heavily concentrated on China, the PI flows to RGMs are more evenly distributed among different receiving countries (Figure 5). The top three host countries (Brazil, India, and South Korea) accounted for 68% of the overall net PI inflows. China only accounted for about 5.9% of the overall net PI inflows, a share that is far below its share of GDP and FDI among the 22 RGMs. In comparison, Brazil and India received a proportionally high volume of PI inflows relative to their share of GDP.

Regional pattern of FDIs and PIs among RGMs

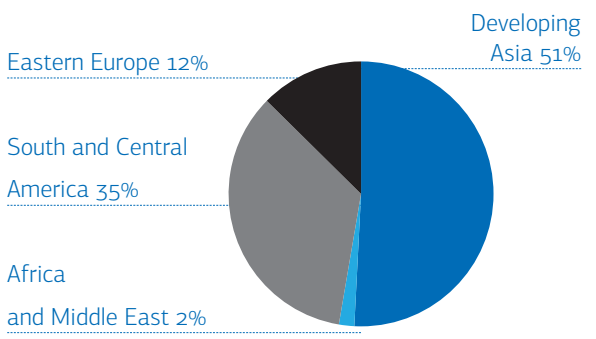
To examine the pattern of capital flows to different regions, we divide the 22 RGMs into four subgroups: Developing Asia, Africa and the Middle East, South and Central America, and Eastern Europe. Our analysis shows that FDI and PI flows are in particular attracted to the rapidly growing and politically stable Asian RGMs, which accounted for more than 46% of the overall net FDI inflows and 51% of the overall net PI inflows during 1995-2010 (Figure 6). China is the leading FDI-receiving country and India is the top receiving country of PI inflows in this region. RGM economies in Africa and the Middle East received 13% of the net FDI inflows and 2% of the net PI inflows. The massive amount of overseas portfolio investments made by the oil-rich Middle East countries (e.g., Saudi Arabia) is the primary reason why the region received such a low share of international portfolio investments in the net sense. Both Eastern

Figure 6: Regional distribution of FDI and PI flows among RGMs (1995-2010)

NET FDI



NET PI



Note: RGMs consist of 22 rapid-growth markets specified by Ernst & Young.
Source: CEIC and IEMS' calculations.

Europe and South and Central America received a share of FDI and PI inflows (12% and around 31%, respectively) that are comparable to their share of GDP among the 22 RGMs. Poland and Brazil are the two most favored destinations for international capital flows in these two regions.

III. Economic fundamentals, institutions, and capital flows to RGMs

Why is international capital attracted to some RGM economies more than others? To gain a thorough understanding about the factors that affect the patterns of international capital flows to RGMs, we rely on a special data set covering the 22 major RGM economies for 1995-2010 that is hand-collected from various sources including the CEIC, the Heritage Foundation, and the IMF. In our regression analysis,[5] we consider a large set of country-level factors that measure different aspects of the economic fundamentals and the institutional development of the host country. Appendix Table 1 presents the summary statistics of the variables that are included in this study. On average, the annual capital inflows to RGMs (including both FDI and PI inflows) are equivalent to 3.91% of their GDP during the sample period, and FDI inflows are the dominant form of such inflows (3.51% of GDP). The average economic growth rate of the 22 RGMs is 4.33% annually, while the year-to-year equity market return is much higher (20.37%). The average RGM currency depreciated by 7.73% per year against US dollars, but some major RGM currencies appreciated greatly (24.2% in the case of Chinese RMB) during 1995-2010. The average annual interest rate of the 22 RGMs was about 10% higher than that of the developed markets (i.e., US and EU) during the same period.

Not surprisingly, the economic fundamentals of the host countries are closely related to the international capital flows to RGMs. For example, international capital favors large RGMs (e.g., China and Brazil) since big countries tend to have more stable domestic markets and lower country risk of investment than the small ones. Among the 22 major RGMs, China is the largest economy, and it had achieved the highest economic growth rate on average (9.9% annually) during 1995-2010, making China the most attractive host country for FDI flows. China's dominant role as the leading receiving country of FDIs has even been further strengthened by the global financial crisis. While the world economy remains troubled by the crisis and the investment risks have heightened in some major economies, China has become the second largest economy in the world and maintained a growth rate of 8.5% even during the financial crisis. From 2007 to 2010, China absorbed nearly 50% of the overall net FDI inflows to the RGMs and both its outward and inward FDIs increased dramatically.

The risk of investing in a country's RGM economy can also be reflected by the country's money market risk premium using US and EU rates as benchmarks. We find that international capitals are more attracted to RGMs with lower country risk premiums (such as China and Poland). In addition, a weak RGM currency reduces the cost of investment in the country from the perspective of multinational companies and thus induces more capital inflows to the country, other things being equal. This effect is more evident in FDI flows but is insignificant in the case of PI flows.

As expected, the recent global financial crisis reduced the overall capital flows to the RGMs significantly. However, the negative impact of the crisis on the PI inflows is much more serious than that on the FDI inflows. During the crisis, international portfolio investors suffered great financial losses and consequently the flow of PI to the RGMs decreased. In contrast, direct investors are more committed to managing their international investments and less likely to pull out at the first sign of trouble. These findings have important implications on the individual RGM economies. For those who had been major FDI-receiving countries before the crisis (e.g., China), their economies were less affected by the reduction of international capital inflow during the global financial crisis, other things being equal. Although China recorded a 35% reduction in inward FDI flows in 2008-09, the inflow rebounded strongly and even exceeded the pre-crisis level on a yearly basis in 2010. The economic growth of China was not much affected by the global financial crisis, keeping a rapid growth pace of more than 9% during the crisis. In contrast, countries who had relied more on PI flows before the crisis (such as Brazil and India) may suffer more serious consequences as a result of dramatically reduced

5/ Refer to the note of Appendix Table 2 for details about the estimation model and the regression results.

foreign portfolio investments during the crisis. As an illustration, Brazil recorded negative inward PIs in 2008 and its economic growth rate was negative in 2009. Similarly, India also recorded a negative inward PI flow in 2008, and its economic growth rate was cut by half from a year ago. To curb the negative shock to their domestic financial markets due to a reversal of international PI flows, some RGM economies (such as Brazil) have implemented capital control policies. However, evidence shows that such measures may only have an effect of lengthening the maturity of PIs but may not have a significant impact on the overall volume of capital flows (Baba & Kokenyne, 2011).

Our study shows that strong institutions help to attract more capital flows to a RGM economy. Among the various institutional factors, property rights protection is found to be the most important one. One critical component of country risk analysis for foreign investors is an assessment of the ability of individuals to accumulate private property, secured by clear laws that are fully enforced by the state. It is also important for international investors to assess the likelihood that private property will be expropriated and analyzes the independence of the judiciary, the existence of corruption within the judiciary, and the ability of individuals and businesses to enforce contracts. The more certain the legal protection of property,

Our study shows that strong institutions help to attract more capital flows to a RGM economy

Text Box 2. Why did India only obtain about 12% of the FDI that China did?

India is the second largest RGM economy in the world, and FDIs have played an important role in the development of its economy. Since the late 1990s, India has continually sought to attract FDI from the world's major investors by adopting a number of reforms designed to encourage and promote a favorable business environment for foreign investors. During 2006-2010, India received US$69 bln (2000 price) in FDI, a huge growth compared to the previous five years (US$18.69 bln), but the size of its FDIs has only been 12% of that of China in the same period. Why does India, a country with resources and a skilled workforce, lag so far behind China in FDI amounts?

Compared with China, the Indian economy is smaller and its economic growth rate has been lower during the past decade. Lack of physical infrastructure has also been a major hurdle for foreign investors in India. Although India has made a lot of progress in improving its telecommunications, highways, and ports, the slow developments in railways, water, and sanitation continued to deter major investors. In addition to the aforementioned economic fundamentals, Indian federal legislation is likely an important reason why India received significantly less FDIs than China. Unlike China, local authorities in India are not part of the approval process that foreign investors must go through before making an investment in the country. However, the large bureaucratic structure of the central government is often perceived as a paperwork system that is shrouded in red tape. Consequently, inward FDIs are discouraged by India's slow-moving and inefficient regulatory system (Rajan et al., 2008; EconomyWatch, 2010).

the less risky a RGM economy is for foreign investors; similarly, the greater the chances of government expropriation of property, the less likely for international investors to put money in a country. RGMs whose laws protect private property rights and whose government enforces those laws well (such as Chile and South Korea) receive more international capital flows, other things being equal.

Last but not least, a regulatory system that is favorable to foreign investment is an important factor underlying foreign investment in an RGM. Some RGM economies have a variety of restrictions on investment, including different rules for foreign and domestic investment, restricted access to foreign exchange and certain industries, and restrictions on payments, transfers, and capital transactions. In addition, labor regulations, corruption, red tape, weak infrastructure, and political and security conditions can also affect the attractiveness of a RGM economy for foreign investors. As a result, international capital tends to avoid those countries that have various restrictions on investment.

It should be noted that a regulatory framework may have different effects on different forms of capital flows. China led other RGMs in terms of receiving FDIs, but PI inflows to China lagged behind other major receiving countries due to its regulatory constraints applied to foreign investors. Under the current regulatory framework of China, foreign investors can only purchase Chinese stocks or bonds and transfer the investment returns out of China after obtaining quota from the government agency under the Qualified Foreign Institutional Investors (QFII) scheme, which has only been implemented since 2003. The overall quota is quite limited relative to the size of China's financial markets, and it is under the tight control of the Chinese government (Qu & Li, 2012). As a result, China only accounted for about 5.9% of the overall net PI inflows to RGMs, a share that is far below its share of GDP and FDI among the 22 RGMs. In contrast, such policy constraints on foreign portfolio investments do not exist in India and South Korea, and they became major PI receiving countries among the RGMs.

An examination of the time trend of capital flows to individual RGMs reveals interesting patterns that are closely related to their evolving economic fundamentals and regulatory framework. Brazil remained a popular destination for inward FDIs throughout 1995-2010. The super boom in commodity prices during the period, the relatively stable government and domestic markets, and the liberalization

Text Box 3. Changing regulations helped FDIs: The case of Saudi Arabia

FDI flows to Saudi Arabia surged dramatically during 2006-10, compared with previous years. The country started to liberalize its financial market in 2000, and its WTO accession in 2005 further helped to bring changes to the kingdom's investment environment under the Agreement on Trade Related Investment Measures (ATRIM). For instance, to ensure compatibility with WTO rules, Saudi Arabia removed the minimum foreign requirements for foreign investors, which had been SR 25 mln for agricultural projects, SR 5 mln for industrial projects, and SR 2 mln for service businesses (Ramady, 2010). Technology transfer is not a precondition for investment under the new law. All the economic sectors are now open to foreign investment in Saudi Arabia except a few investment fields such as exploration, drilling, and production of petroleum. Such changes to the regulatory framework in the country encouraged foreign investments, and the volume of its inward FDIs surged 11 times during 2006-10 as compared to that of 2001-05 (Table 1).

and openness of its financial markets are likely the primary reasons underlying the large inward FDI flows to Brazil (EconomyWatch, 2010). Some countries that were once favored by international investors have become less attractive over time. For instance, Thailand was once a major FDI-receiving country and ranked number six among the 22 RGMs in 1990s. However, it has dropped out of the top-10 list of the major FDI-receiving RGMs by 2010. While the country has achieved a decent GDP growth rate of 4% annually and had a stable currency in the past 10 years, the restrictions placed on foreign investors by the government since the 1997-98 Asian financial crisis and more recently in 2006 have dented the confidence in Thailand of overseas investors. Similarly, Argentina was a popular destination for FDIs in the 1990s, but its inward FDIs dropped dramatically in absolute value during the 2000s. The currency crisis in the early 2000s and the regulatory changes aimed to secure the lion's share of the rent accruing from the natural resources sector for the state are likely to be the main factors that discouraged FDIs to Argentina (EconomyWatch, 2012). In contrast, FDI flows to Turkey were negligible in 1990s, but the country became a major FDI-receiving RGM by 2010, helped by its rapid economic growth, low inflationary risk, and relatively low public debt to GDP ratio during the 2000s. Another country that saw a dramatic surge of FDI inflows during 2006-10 is Saudi Arabia (Text Box 3).

IV. Looking ahead: The changing pattern of international capital flows to RGMs

Future trend of FDI flows and government policies

While the RGM economies with relatively good growth prospects can still count on and take advantage of the international FDI inflows to promote their economic growth, they need to be fully aware of the potential risk related to the reduced volume and increased volatility of FDI flows. Although FDI inflows to the RGMs rebounded in 2010 after declining for the three consecutive years following the financial crisis, its net value in 2010 was only about two thirds of the pre-crisis peak value in 2007. Given the

Text Box 4. Right policies regarding foreign investments: The case of China

Starting with its "open-door" policy in early 1980s, China allowed foreign enterprises and economic organizations or individuals that followed the relevant policies and laws of China to establish various forms of firms inside China, including joint ventures and solely-owned foreign companies. FDI is generally welcomed by various levels of Chinese government in the belief that it can benefit the economy in multiple ways: 1) It increases the capital supply for domestic investments; 2) It fills up the insufficiency of domestic savings; 3) It increases the supply of undersupplied products in the market; and 4) It brings in advanced technologies and management practices as well as new organizational structures for enterprises. To attract FDI, China has imposed a favorable tax policy for foreign investors. Starting from the year when the foreign-invested companies make a profit, their income tax is completely exempted for the first two years and then levied at a reduced rate (50% off) in the following three years. In addition, China has invested extensively in the development of infrastructures such as telecommunications and transportation, which is a necessary condition for foreign invested firms to operate in China more efficiently (Cai et al., 2009).

From 1995 to 2010, foreign capital flow to China grew by a compounded annual rate of around 8%, and its overall amount ranked second in the world, behind only the US. Traditionally the massive FDI inflows to China were heavily concentrated in the labor-intensive manufacturing sector to take advantage of the cheap labor cost in China. Starting from the latter half of the 2000s, FDI flows to China have become more diversified: the sectoral distribution of FDIs has shifted away from the manufacturing industry into others that are more capital intensive or technology intensive, such as the finance industry. For instance, the share of the manufacturing sector in the overall inward FDI flows to China declined from 70% in 2005 to about 47% in 2010. This trend is likely to continue in the future, given the heightened cost of labor and other production factors in China. The industrial policies of China may have also played an important role in inducing FDIs to go into certain priority sectors, thus helping China to upgrade its industrial structure. For instance, additional tax and other benefits are provided if the foreign investment goes to the following areas, according to the official Chinese government documents: 1) projects that develop agricultural technology; 2) projects that introduce technologies urgently needed by the state to improve product performance, save energy and raw materials, reduce pollution, and broaden the international market; 3) projects introducing new technology or new material products that can fill the domestic gap; and 4) projects bringing in new technologies that can comprehensively utilize resources and regenerate resources. Such differentiated government policies on FDIs are fine-tuned as economic conditions change.

intensifying sovereign debt crisis in Europe and the sluggish economic recovery in the US, the capital flows from the developed world to the RGMs are likely to be flat (if not declining) in the foreseeable future. In addition, capital flows to the RGMs showed much greater volatility both in terms of the overall volume and the distribution among the RGMs in 2000s compared with previous years (Table 1). Consequently, RGMs need to closely monitor the trend of international capital flows.

In a number of RGM economies, favorable regulatory framework and government policies regarding inward FDIs have been put in place (Magud, Reinhart & Végh, 2012). Favorable government policies can help a RGM economy to attract more international capital flows and to make better use of FDIs. While the government policies regarding FDIs vary greatly across RGMs, China, being the leading receiving country among RGMs, makes a good example (Text Box 4). A general lesson that the experience of China can offer to other RGMs is that, in order to attract more FDIs, it is important for an RGM to have an institutional, regulatory, and policy environment that is conducive to international investment. While China still maintains tight exchange rate management and constraints on foreign portfolio investment, it enhanced its legal framework and liberalized its trade and financial system significantly during 1995-2010 (Qu & Li, 2012). Therefore, institutional development and a favorable regulatory system, in addition to its economic fundamentals, are critical factors that make a RGM economy attractive to foreign investors.

The growing importance of intra-RGM investments and the rise of big RGM economies such as China and India carry important implications for the current pattern and the prospect of economic development in RGMs. Smaller RGMs and other developing countries may become more reliant on the major RGM economies for trade and inward FDIs. Consequently, their policies and economic structure may become more affected by those of the major RGM economies. The increased intensity of such interactions over time will make the RGM economies more integrated. The major RGMs (such as BRICs) have already started to strengthen their co-ordinations on various trade and investment related issues. At present, the inter-connectedness of the trade and investment relations among the RGMs is still far below that of the developed countries (e.g., the G7) and the overall importance of the RGMs in the international capital flows is also lower. However, with the trend of integration continues, RGMs as a whole may become a major power in cross-border investments in the not-so-distant future, which further underlines the importance of RGMs in creating new growth opportunities for the sake of the world's economic development.

PI flows to the RGMs: impact, recent trend, and policy options

Compared to the FDI flows, macroeconomic impact of PI flows on the economy of the host country has been a controversial issue. There may be both positive and negative consequences related to PI flows. On the positive side, flows of portfolio money from abroad can provide an extra funding source, add liquidity to the domestic financial markets, and allow risk diversification in the host country. As a result, the efficiency of the financial markets is enhanced and firms in the RGMs may be better able to obtain financing and expand their investments. On the negative side, unlike FDIs that are usually associated with investments in the real economy of the host country, PIs often have a much shorter term and are subject to quick selling off in bad times. Rapid PI inflows (and its unexpected reversal) may be associated with increased financial risks in the host country, such as appreciation pressure, rising asset valuations return, and creation of financial bubbles (IMF, 2010).

The unprecedented super-low interest rates in the major industrialized countries and the several rounds of "Quantitative Easing" (QE) policies by the US have created abundant liquidity worldwide and caused massive PI flows to the RGMs since 2008. Since the flows consist mainly of portfolio equity and fixed-income investments, they have resulted

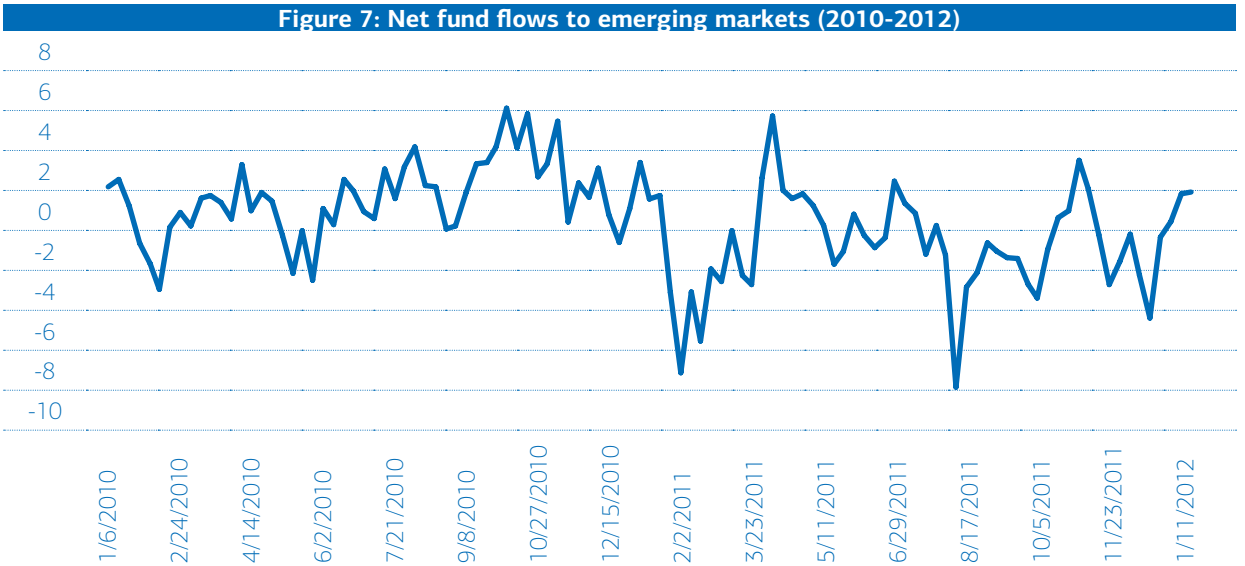
in rising asset valuations, including equities. For instance, a recent IMF report reveals that rising capital flows to emerging markets are associated with rising equity returns and declining real interest rates in the receiving economies during 2003-2009. Our examination using the S&P equity indices also shows a significant and positive correlation between PI inflows (scaled by GDP) and equity returns in the 22 RGMs during 1995-2010, while FDI flows data indicate no significant association with the equity market returns. Further tests with four distinct geographic groupings (Developing Asia, Africa and the Middle East, South and Central America, and Eastern Europe) reveal the same relationships in each of the four groups. These findings, together with the IMF report, support the view that FDI flows have a long-term impact on the RGM economies while PI inflows have an impact of promoting the short-term returns of the financial assets in the host country.

Compared to the FDI flows, macroeconomic impact of PI flows on the economy of the host country has been a controversial issue

While the RGMs will continue to be an important part of the global allocation of portfolio investment in the foreseeable future, policymakers in the RGMs need to pay close attention to the volatile PI flows and examine the potential impact of an abrupt cessation of such flows on their financial markets. Recent evidence shows that portfolio capital seems to be flowing out emerging markets since 2011, as illustrated by Figure 7. Using the panel regression model, the aforementioned IMF report (2010) shows that a 10% decline in global liquidity growth is associated with a 2% drop in receiving economies' equity returns.

The menu of policy responses for mitigating risks related to PI inflow surges and their abrupt reversal includes fiscal and monetary policies, exchange rate adjustment, reserve accumulation, prudential regulation, and, sometimes, capital controls (IMF, 2010). For instance,

Figure 7: Net fund flows to emerging markets (2010-2012)



Legend: Net Fund Flows to Emerging Markets

Note: Weekly flows including both equity fund investments and bond fund investments; unit of measure: US$ bnl (current price). Sources: IMF and IEMS' calculations.

a flexible exchange regime can mitigate capital inflows attracted by appreciation expectations. Monetary easing can narrow the interest rate differential between foreign and domestic interest rates and, thereby, reduce the incentives for carry trade. Fiscal tightening can support monetary policy by reducing the budget reign and domestic interest rates. Adequate supervision of prudential regulations helps contain systemic risk in the financial sector. While most of the aforementioned policy options have been the subject of extensive discussions and have proven effective by some natural experiments of crisis events (e.g., the 1997-98 Asian financial crisis), the implementation of capital control is a more controversial measure. There is some indication that capital controls can lengthen the maturity of inflows and create greater room for monetary independence. However, the adoption of capital control in one RGM economy may trigger the capital control in other RGMs, and the resulting widespread heavy reliance on capital control may delay necessary and more important adjustments to their economic fundamentals.

IV. Conclusion

The increasing importance of the RGM economies in the world capital market carries important implications for the current pattern and for the prospects of global economic development. The major RGMs in the world, represented by the BRICs, have become major hubs of world capital flows and received massive amount of capital inflows in the past decade. Although FDI and PI inflows to RGMs declined during the 2007-08 global financial crisis, they rebounded strongly after the crisis.

Among the 22 major RGM economies, China is by far the largest receiving country of FDIs, and its economy benefited the most from FDI inflows during 1995-2010. In comparison, India accounted for an insignificant share of the net FDI inflows, even though it is now the second largest RGM economy in the world. Interestingly, some RGM economies (e.g., South Korea) have transformed from net FDI receivers to net FDI providers over time. FDIs from the developed markets, the traditionally major providers of FDIs to RGMs, have been on a declining trend since 2007 as a result of the global financial crisis and the sluggish economic recovery in these countries. On the contrary, the outward FDI flows from RGMs, lead by the BRICs, increased significantly during the same period. The growing importance of intra-RGM investments carries important implications for the current pattern and the prospect of the world's economic development. Smaller RGMs and other developing countries may become more reliant on the major RGM economies (e.g., BRICs) for trade and inward FDIs. Consequently, their policies and economic activities may be brought more in line with those of the major RGM economies.

The economic fundamentals of the host countries are closely related to the international capital flows to RGMs. For example, international capital favors large RGMs (e.g., China and Brazil) since big countries tend to have more stable domestic markets and lower country risks than the small ones. We also find that international capital is more attracted to RGMs with lower country risk premiums (such as China and Poland). In addition, a weak RGM currency reduces the cost of investment in the country for foreign investors and thus induces more capital inflows to the country. This effect is more evident on FDI flows but is insignificant in the case of PI flows. As expected, the recent global financial crisis significantly reduced the overall capital flows to the RGMs. However, the negative impact of the crisis on the PI inflows is much more serious than that on the FDI inflows. Our study shows that strong institutions help to attract more capital flows to a RGM economy. Among the various institutional factors, property rights protection is found to be the most important one. Last but not least, a regulatory system that is favorable to foreign investment is an important factor underlying foreign investment to a RGM. International capital tends to avoid those countries that restrict investment.

The time trend of capital flows to individual RGMs is closely related to their evolving economic fundamentals and regulatory framework. China and Brazil remained popular destinations for inward FDIs throughout 1995-2010. Some countries that were once favored by international investors have become less attractive over time (for instance, Thailand and Argentina). In contrast, FDI flows to Turkey and Saudi Arabia were negligible in 1990s, but these countries became major FDI-receiving RGMs by 2010. Favorable government policies can help a RGM economy to attract more international capital flows and to make better use of FDIs. While the government policies regarding FDI vary greatly across RGMs, China, being the leading receiving country among RGMs, has set a good example. In order to attract more FDIs, RGMs should adopt and maintain institutional, regulatory, and policy environments that are conducive to international investment.

During the early post-crisis period, the RGMs experienced historically high volume of PI inflows, which are, at least partially, driven by the near-zero interest rates in the major industrialized countries. However, the PI flows to RGMs showed much greater volatility than FDIs, especially during the past ten years and there is evidence that portfolio capital has been flowing out emerging markets since 2011. In addition, evidence on the impact of PI

flows on the real economy of RGMs is mixed. The massive PI flows to the RGMs since 2008 are associated with rising asset valuations in some RGMs. Policy-makers in the RGMs need to pay close attention to the volatile PI flows and examine the potential impact of an abrupt reversal of such flows on their financial markets, especially for countries that have traditionally relied more on PI inflows (e.g., Brazil and India). The specific conditions facing RGM economies and the policies available to them vary widely, and so will the appropriate policy responses. The menu of policy responses for mitigating risks related to PI inflow surges and their abrupt reversal includes fiscal and monetary policies, exchange rate adjustment, reserve accumulation, prudential regulation, and, sometimes, capital controls. However, caution needs to be taken when implementing capital control polices since such policies may lengthen the maturity of PIs but may not have a significant impact on the overall volume of capital flows (Baba & Kokenyne, 2011).

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Appendix

Appendix Table 1: Summary statistics of variables

Variable	No. Obs.	Mean	Std. Dev.	Min	Max
Net PI/GDP	342	0.0041	0.0436	-0.2514	0.2104
Net FDI/GDP	351	0.0351	0.0446	-0.056	0.3516
(Net PI + net FDI)/ GDP	351	0.0391	0.0541	-0.2276	0.3478
Log GDP	352	12.0434	1.0726	9.6914	14.9929
GDP growth rate	336	0.0433	0.0427	-0.148	0.142
Equity return	293	0.2037	0.5257	-0.8423	2.84
International interest rate (USA)	352	0.0334	0.0223	0.0013	0.065
International interest rate (EU)	352	0.0334	0.0156	0.0048	0.0682
Domestic interest rate	241	0.137	0.1884	0.0074	1.9043
Depreciation of domestic currency	330	0.0773	0.3253	-0.2897	3.4755
Restrictions on investment	348	3.8721	0.3564	2.3026	4.3820
Property rights protection	348	3.8024	0.4828	2.3026	4.4998

Note: Natural log values of GDP, measure of restrictions on investment, and measure of property rights protection are used in regressions. GDP growth rate, equity return rates, interest rates, and depreciation rate of domestic currency are annual rates. The sample period is 1995-2010.
Sources: CEIC, IMF, Heritage Foundation, and IEMS' calculation.

Appendix Table 2: Estimation results (fixed effects models)

	Dependent variable: net FDIs + net PIs	Dependent variable: net FDIs	Dependent variable: net PIs	Dependent variable: inward FDIs +PIs
	(1)	(2)	(3)	(4)
Log GDP	0.0625***	0.0051	0.0574***	0.1336***
	(0.0219)	(0.0145)	(0.0184)	(0.0204)
GDP growth rate	0.0642	-0.0122	0.0764	0.0201
	(0.0729)	(0.0482)	(0.0613)	(0.0678)
Equity market return	0.0033	0.0011	0.0022	0.0035
	(0.006)	(0.004)	(0.0051)	(0.0056)
Diff. between domestic and int'l interest rates	-0.0834**	-0.0778***	-0.0056	-0.0606*
Currency depreciation	(0.037)	(0.0245)	(0.0311)	(0.0344)
	0.0213*	0.0131*	0.0082	0.0138
Financial crisis dummy	(0.0124)	(0.0076)	(0.0104)	(0.0115)
	-0.0476***	0.0078	-0.0554***	-0.0433***
Restrictions on investment	(0.0123)	(0.0082)	(0.0104)	(0.0115)
	-0.044**	-0.027**	-0.0171	-0.0439***
Property rights protection	(0.0175)	(0.0116)	(0.0147)	(0.0163)
	0.0639***	0.0361***	0.0278*	0.0623***
Constant	(0.0179)	(0.0119)	(0.0151)	(0.0169)
	-0.8004**	-0.0648	-0.7356***	-1.6379***
Fixed effects	(0.3183)	(0.2106)	(0.2675)	(0.296)
	Included	Included	Included	Included
No. of observations	223	223	223	223
R-squared (within group)	0.2139	0.1295	0.1947	0.3702
F-statistic	6.73	3.68	5.99	14.55

Note: The following fixed-effects estimation model is implemented in the regression analysis: $F_{it} = \alpha + \beta' X_{it} + \gamma Crisis_t + \theta' C_i + \varepsilon_{it}$, where F_{it} is the capital flows to country i in time t. Four dependent variables are used: net FDI inflows, net PI inflows, the sum of the net FDIs and PIs, and the sum of the inward FDIs and PIs. *Xs* are the group of macroeconomic and institutional indicators. $Crisis_t$ is a dummy variable for the 2007-08 global financial crisis. Cs are the fixed country effects. The error term ε_{it} is characterized by independently distributed random variables with mean zero and variance σ^2_{it}. The dependent variables are scaled by GDP (USD, 2000 price). Natural log values of GDP, measure of restrictions on investment, and measure of property rights protection are used in the regressions. Interest rates are money market rates. The difference between domestic and international interest rates is calculated as the domestic money market rate minus the average of the US and EU rates. The exchange rate of domestic currency is measured against US$ (units of domestic currency per US$). The calculation of the equity market return is based on the S&P equity index. The dummy variable for the financial crisis takes the value of one if the year is 2008 and zero otherwise. *, **, *** represent significance levels at 10%, 5%, and 1%, respectively. Numbers in parentheses are standard deviations.
Sources: CEIC, IMF, Heritage Foundation, and IEMS' calculations.

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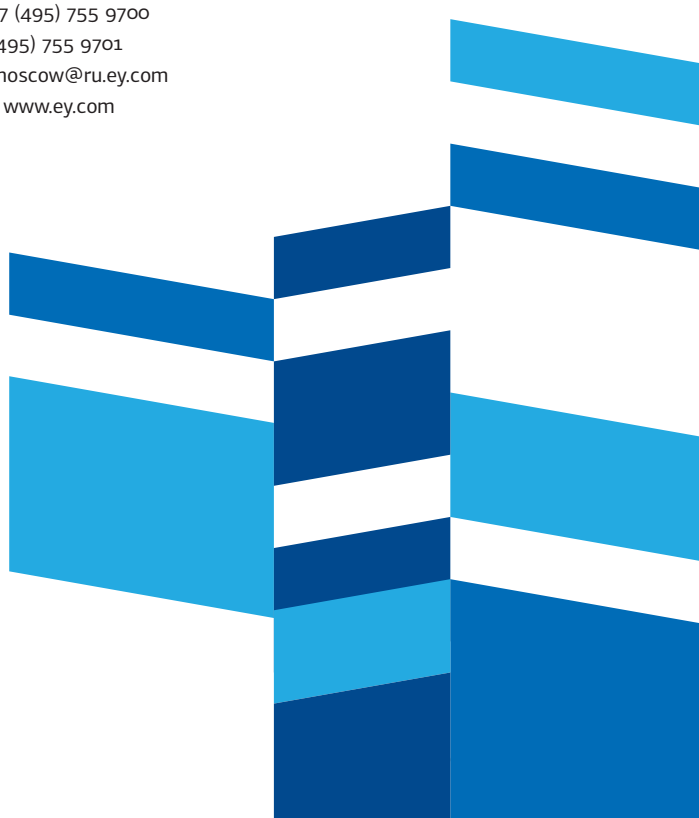

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