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7 October 2019

Online at https://mpra.ub.uni-muenchen.de/96568/
MPRA Paper No. 96568, posted 25 Oct 2019 13:20 UTC

The Sources of International Investment Income in Emerging Market Economies*

by

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Abstract

Version: October 2019

Forthcoming in the *Review of International Economics*

We investigate international investment income flows in 26 emerging market countries during the period of 1998-2015. Net investment income registered a deficit for this group of countries of between 2-3% of GDP during this period. This deficit has been dominated by payments on foreign direct investment liabilities, which is consistent with the change in the composition of the external liabilities of these countries. Our results indicate that both capital account and trade openness are associated with the deficits on direct investment income. In addition, there was a small deficit in portfolio investment income, which is affected by the development of domestic financial markets and investor protection. Other investments' income and the income from foreign exchange reserves have a negligible role in total investment income.

Keywords: investment income, FDI, emerging markets

JEL: F21, F32

* I am grateful to Tina Zhang and Nancy Li for their assistance in obtaining data, and Neven Valev for providing data. This paper benefitted from comments by an anonymous referee, Dennis Essers, Ilan Strauss, Robert Vermuelen and participants at presentations at the 2018 INFINITI Conference on International Finance, the 4th HenU/INFER Workshop on Applied Macroeconomics and the 12th International Workshop of Methods in International Finance.

The Sources of Investment Income in Emerging Markets Economies

1. Introduction

Changes in a country's current account balance are often assumed to reflect fluctuations in its net exports. However, the current account also includes net primary (foreign) income and net secondary (transfers) income. Net primary income comprises payments for productive resources, and usually consists mainly of income on investments. These income flows have grown in size since the expansion of financial globalization in the 1990s. Forbes, Hjortsoe and Nenova (2017) have pointed out that primary income now represents a larger share of the current account than the trade balance in several emerging market economies such as Brazil, Chile, Colombia, Indonesia, and Mexico. In some cases, the two sub-balances have moved in different directions, with primary income deficits partially offsetting trade account surpluses.

Net investment income reflects several factors, including a country's net international investment position (NIIP) as a creditor or debtor nation, the composition of its external assets and liabilities and their returns. The foreign exchange assets of central banks in emerging market countries, particularly in Asia, increased in the 1990s and 2000s. Moreover, during this period the emerging market economies increasingly turned to equity, particularly foreign direct investment (FDI), as an external source of finance. As a result, their equity liabilities grew steadily. The resulting external balance sheet profile is known as "long debt, short equity," and differs from the "long equity, short debt" composition of the balance sheets of advanced economies that hold equity and issue debt.

In non-crisis periods, the equity issued by emerging markets should yield a return that compensates its holders for the riskiness of these liabilities. This would normally exceed the return that the emerging markets earn on their foreign exchange, held in the form of U.S.

Treasury securities and other debt assets. Consequently, we would expect that those emerging market countries with the "long debt, short equity" composition of their balance sheets to record deficits in their investment income balances due to the differences between the earnings of their reserve and debt assets and the payments on their equity liabilities. China, for example, records deficits on its net international income balance despite its status as a creditor nation.

This paper investigates the trends in international investment income and its determinants in 26 emerging market countries during the period of 1995-2015. We examine the components of investment income—net FDI income, net income from portfolio investments, net income from other investments, and reserve income—to determine how they have contributed to the overall movement in investment income in these countries. We also analyze which factors affect these income flows. We specifically examine the impact of capital account and trade openness, as well as the effects of domestic financial development and governance on the income flows.

Our results indicate that emerging markets recorded net international investment income deficits of 2-3% of GDP over this period. These deficits reflect primarily the deficits on net foreign direct investment income. There is also a small deficit on net portfolio investment. The deficit on net income from other investments, on the other hand, has fallen over this period, while the return on reserve assets is very small.

The determinants of these income flows differ according to their sources. Openness of the capital account and trade both contribute to net direct investment income deficits. Financial development and investor protection, on the other hand, have impacts on the income from portfolio investments. The development of domestic financial institutions and markets lowers the payments on these investments, while a robust legal system and investor protection raises them.

Our study, therefore, contributes to our understanding of the income flows associated with external assets and liabilities. It is the first to focus on emerging market economies and also the first to examine the separate components of investment income. The results are relevant for an understanding of the dynamics of the external positions of these economies. As stated above, net investment income has become a significant component of the current account. It is also part of the adjustment mechanism between current account balances and the NIIP, and plays a role in the international risk-sharing of consumption. If FDI continues to serve as a major source of external finance for these countries, then the associated payments will continue to be a significant component of investment income and the current account.

In the next section, we review the existing analyses of this subject. In Section 3 we explain the data used in the empirical analysis, and examine the trends in international income flows and its components. Section 4 presents the results of empirical analyses of these movements. The final section summarizes the findings and explores their implications.

2. Literature Review

Relatively few studies have focused on international investment income flows. Langhammer (2012) showed that many emerging and developing economies have net income deficits that partially offset their trade and transfer surpluses. Strauss (2016), for example, described the role of FDI income payments in South Africa's current account deficit. Akkermans (2017) examined net profit flows from FDI.

Forbes, Hjortsoe and Nenova (2017) demonstrated how investment income flows affect a country's current account, and developed a model of the impact of domestic and global risk on investment income. They point out that a country's investment income will depend in part on the

composition of its external assets and liabilities as well as its NIIP. Bond (1977) provided an econometric analysis of investment income inflows and outflows in Germany, the United Kingdom and the U.S. for the period of 1962 through 1975.

The returns on external assets and liabilities are part of the adjustment mechanism to an external imbalance. This process also includes valuation effects, which are based on exchange rates and asset prices, as well as changes in the trade balance. Studies of the relative magnitudes of these components include those of Adler and Garcia-Macia (2018), Alberola, Estrada and Viani (2018), Gourinchas and Rey (2007) and Habib (2010).

The transformation in the composition of the external balance sheets of developing and emerging market economies has been examined by Lane and Milesi-Ferretti (2007, 2018) and Kose and Prasad (2010). The share of the liabilities issued by these countries in the form of debt peaked in the mid-1980s and then fell as the share of equity—primarily FDI—rose. The increase in equity liabilities coincided with an increase in external assets held as debt and foreign exchange reserves (primarily U.S. Treasury bonds) on the balance sheets of many emerging markets. In recent years, however, emerging markets have also been a source of FDI (Sauvant, McAllister and Maschek 2010).

Lane (2013) has claimed that this composition of external assets and liabilities acted as a stabilizing buffer for the emerging market economies during the global financial crisis as their NIIPs benefitted from the fall in value of their equity liabilities. Joyce (2018) has shown that the countries that were net issuers of FDI had higher growth rates during the crisis, fewer bank crises and were less likely to borrow from the IMF.

The advanced countries that held the equity assets found that they lost value during the crisis. This latter phenomenon was accentuated in the U.S. because of the appreciation of the

dollar at the beginning of the crisis. The assets denominated in foreign currencies suffered a further loss in value, while the dollar-denominated liabilities increased in value. This resulted in a wealth transfer between the U.S. and the emerging market countries during the global financial crisis, which helped buffer the effects of the crisis.

Gourinchas, Rey and Govillot (2010) referred to this transfer as a form of "crisis insurance," and the return paid on the equity liabilities as the price of this insurance paid to the U.S. and other holders of the liabilities. Gourinchas, Rey and Truempler (2012) have provided estimates of the value of the wealth transfers between the U.S. and other countries. Maggiori (2017) also investigated the U.S. role as a key country that holds the risky assets of other countries, on which it receives a higher return in compensation.

Several theoretical models have been offered to explain the disparities in the financial systems of advanced and emerging countries, which account for the different compositions of their external balance sheets. Mendoza, Quadrini and Ríos-Rull (2009), for example, presented a model in which countries differ by the degree of their enforcement of financial contracts. Residents of countries with better security provisions invest in the high-return but relatively risky equity issued by countries with less developed financial markets, which in turn hold the debt issued by the countries with more developed financial markets.

Ju and Wei (2010) compare developed countries with efficient financial systems and strong property rights with emerging market economies that have weak financial systems and intermediate levels of property rights. In their model, the latter countries export financial capital but are net issuers of FDI. Wei (2006) in an empirical analysis of the composition of external liabilities found that financial development boosted the issuance of portfolio equity and discouraged FDI. Joyce (2019) also reported that the development of domestic financial markets

is linked to an increase in the equity liabilities of emerging market economies, and in particular, portfolio equity, while FDI liabilities are more common when financial institutions are not well developed.

Measures of financial development in both source and destination countries have been included in bilateral gravity models of capital flows. Portes and Rey (2005) reported that equity market capitalization in both economies increased equity inflows in the host country. Aggarwal, Kearney and Lucey (2012) included measures of host and home equity and bond market development in their analyses of foreign portfolio equity and debt investments. Bilir, Chor and Manova (2019) find that an improvement in financial conditions in a host country increases the number of foreign affiliates located there.

Other bilateral studies have investigated the linkage of FDI and financial development. Donaubauer, Neumayer and Nunnenkamp (2016), for example, find that bilateral FDI increases with better developed financial markets in both the host and home countries. As one of the rationales for the latter linkage they point out that multinational firms are likely to finance their activities in the local markets. Similarly, Desbordes and Wei (2017) report that financial development in both the source and destination economies promotes FDI.

Our work, therefore, extends the limited research done on international income flows. We also draw upon the literature on external assets and liabilities to investigate the associated income flows. We also incorporate lessons from the analysis of the impact of domestic financial development on the composition of foreign liabilities.

3. Data and Trends

3.1 Data

In our empirical analysis, we examine the influence of the external assets and liabilities, global and domestic cyclical factors, trade and financial openness, domestic financial development and governance on the various investment income flows of 26 emerging market economies over the period of 1995 to 2015. The countries in the sample are Argentina, Brazil, Chile, China, Colombia, the Czech Republic, Egypt, Estonia, Hungary, India, Indonesia, Jordan, Latvia, Lithuania, Malaysia, Mexico, Pakistan, Peru, Philippines, Poland, Russia, South Africa, South Korea, Thailand, Turkey and Venezuela.[1] Data sources are reported in Table 1 and the summary statistics are listed in Appendix I.

Our dependent variables are: a country's net investment income scaled by GDP, which is then disaggregated to net direct investment income, net portfolio investment income, net income from other investments, and reserve income credits. We also look at the gross flows of credits and debits for all investment income and its components. The data on investment income are reported in the IMF's *Balance of Payments Statistics*.

We measure the impact on the income flows of their respective assets and liabilities. In the case of total investment credits and liabilities, we use a country's net international investment position scaled by GDP (NIIP/GDP), and we then use as separate variables its external assets and liabilities, each also scaled by GDP. Similarly, in the following regressions we include net direct investment scaled by GDP, as well as direct investment assets and liabilities, similarly measured; net portfolio investment and portfolio assets and liabilities; net other investments and other investment assets and liabilities; and reserve assets scaled by GDP. The data for external assets

and liabilities are taken from the latest version of the "External Wealth of Nations" dataset (Lane and Milesi-Ferretti 2007, 2018).

We use several measures of domestic economic conditions: GDP growth, the percentage change in the dollar exchange rate, and per capita GDP.[2] Domestic growth may raise payments on liabilities. The impact of a change in the exchange rate is also not straightforward. A depreciation that increases exports would contribute to the profitability of domestic FDI and therefore profits; however, it could also have domestic consequences for income inflows. We also included a trend.

In addition, we sought to analyze how the openness of an economy influenced these flows. The period under study was marked by increased financial openness in many of the countries under study. Countries with more open capital accounts may be more likely to have larger investment income liabilities due to increased foreign investments and the ability to repatriate earnings. As a measurement of *de jure* financial openness we utilize the Chinn-Ito (2006) measure of capital account openness, which is based on the data reported in the IMF's *Annual Report on Exchange Arrangements and Exchange Restrictions*. Chinn and Ito constructed an index based on the data reported for each country. The original series was rescaled to 0-100, with higher values indicating more openness. Financial openness declined at the time of the 1997-98 Asian crisis and then recovered, reaching its highest value in 2008 before subsequently falling in its wake.

We also include trade openness, as measured by exports and imports scaled by GDP. If foreign investments are targeted towards the traded goods sector, then a country with more trade may have more outward income payments. Trade openness also rose in the period preceding the global crisis before falling, but has recovered to its pre-crisis levels.

The literature cited in Section 2 has found evidence of linkages of domestic financial development and foreign investment, particularly FDI. For measures of domestic financial development, we make use of indexes developed at the IMF, which are designed to capture the multidimensional nature of the development of financial institutions, such as banks and insurance companies, and markets, including stock and bond markets. Financial development is assessed by depth, access, and efficiency.[3] We use the data on the overall measure of financial development and also its two subcomponents of financial development: financial institutions and financial markets.[4] We rescaled the variables to 0-100. We use these variables in the estimations to test whether countries with more financial development were more likely to register net income deficits or surpluses.

To examine the influence of governance we used two of the variables contained in the PRS Group's *International Country Risk Guide*. The law and order measure assesses the strength and observance of the legal system. It ranges from 1 – 6 points, with higher ratings denoting a stronger legal system. A country's investment profile takes into account contract viability, the repatriation of profits and delays in payments on a 12 point scale, with higher points showing less investment risk from these sources.

We used lagged values of the determinant variables to avoid endogeneity.[5] Initial testing of the panel data indicated the existence of heteroscedasticity and serial correlation in the error terms. Therefore, we used linear regressions with panel-corrected standard errors where the parameters are obtained from Prais-Winsten regressions.[6] We also included country fixed effects, which should capture the effect of many institutional variables, as well as yearly effects.[7]

3.2 Trends

Figure 1 shows the averages for the countries in our sample of their direct investment assets, portfolio (equity and debt) assets, other (mainly bank-related) assets and reserves, all scaled by GDP. At the beginning of the period external assets consisted primarily of other investment assets (13.7% of GDP) and reserve assets (13.5% of GDP). There was a rise in reserves over the period, and these peaked at 22.4% of GDP in 2009 before falling to 18.7% of GDP at the end. There was also a rise in other investment assets to 20.3% of GDP. But the largest increase was recorded by direct investment assets, which grew from 3.8% of GDP to 23.3%, demonstrating that emerging markets have become a source of FDI. Portfolio investment assets also increased from 3.4% of GDP to 13.2%.

Figure 2 illustrates the corresponding trends for external liabilities. The rise in direct investment liabilities is most striking, recording a fourfold increase from 19.3% of GDP to 47.6%, almost half of all external liabilities. Portfolio liabilities increased from 11.6% of GDP to 24.2%, but other types of liabilities fell as a proportion of GDP from 38.6% to 28.1%.

Our data for the increase in FDI liabilities are consistent with those of the OECD (2016), which reported that FDI flows to non-OECD countries more than doubled between 2005 and 2014. However, Blanchard and Acalin (2016) have pointed to a high correlation of FDI inflows and outflows for emerging market countries. They interpret this correspondence as evidence of flows through rather than to a country, possibly for tax reasons.[8] Since FDI liabilities were double the amounts of assets in our sample, it would seem that most of the inflows were destined for these economies, but the data may overstate the amount of external finance available to them.

We next look at the current account of these countries and its components in Figure 3. Net primary income has consistently been in deficit during the period, ranging from about 2-3%

of GDP. Net secondary income, on the other hand, shows a surplus of the same magnitude. For the countries in our sample these would reflect remittances by migrant workers to their home countries. The balance of trade is much more volatile, fluctuating since 1999 within a range of about +1 to -1.5% of GDP, rising during the early 2000s and right before the global financial crisis blast before declining. The fluctuations in the current account, therefore, follow those in the balance of trade because the primary and secondary income flows largely offset each other.

The deficits in net primary income are predominantly due to net investment income, which registered a deficit that increased from 2% to 3% of GDP over the period. This figure is comparable to the investment income return of -1.7% of GDP for a sample of emerging market economies over the 1990-2015 period reported by Adler and Garcia-Macia (2018). These deficits are larger than those on net primary income, with the gap growing over the time period from approximately 0.2% of GDP to approximately 0.6%. The difference is accounted for by inflows of income from the other productive factors, such as wages received by domestic workers from foreign entities.

In Figure 4, we separate net investment income into its components: net income from direct investments, net income from portfolio investments, net income from other investments and income from foreign reserve holdings. The figure shows that there has been a marked increase in the deficit on the income from direct investments. This deficit rose from 1.1% of GDP in 1998 to 3.1% before the crisis, before declining to approximately 2.5%. During this time period net income from portfolio investments registered deficits of less than 1%. The deficits from other investments, which had been the largest component of the overall investment income deficit, has fallen in recent years below 0.2% of GDP. Finally, income from reserve holdings

showed an increase of about half a percentage point during the period leading up to the crisis but subsequently fell, and are now at the same level as they were at the beginning of the period.

The correlations of total net investment income scaled by GP and its components confirm that the strongest positive relationship is that between the overall balance and that on direct investment income: 0.87. This is followed by the correlation with net portfolio income balance at 0.28 and the correlation with income from other investments of 0.23. Income from reserves has a correlation of only 0.11. [9]

The investment income deficits registered by these emerging market economies, therefore, are largely a product of their direct investment liabilities. As these liabilities have grown, so have their payments. The payments may also involve profit shifting by multinationals that seek to record their profits in those jurisdictions with low corporate tax rates.[10]

The FDI income debits include retained earnings as well as dividends. UNCTAD (2013) reported that since 2009 the share of reinvested earnings in total FDI payments has been the highest in developing countries, reaching 49% in 2011. Lundan (2006) and Strauss (2018) discuss some of the reasons why corporations may reinvest their earnings in the host country. These include the profitability of the local affiliate, as well as the tax treatment of profits in both the host and source countries.[11] Hansen and Wagner (2018) point out that these profits can supplement national savings, and can be used to finance further FDI inflows. UNCTAD (2013) found that the share of reinvested earnings in financing inward FDI was the highest for developing economies at 36%.

Net investment income flows for our sample, therefore, rose over the 1995-2015 period. Moreover, there has been a change in their composition, with payments on FDI now forming the largest part of the net income deficit. This rise is in part a result of the shift in the sources of

foreign finance for the emerging economies from bank and other forms of debt to FDI, and the resulting change in the composition of the external balance sheets of these countries. We explore below additional reasons for these fluctuations in these income flows.

4. Results

4.1 Net Income

Table 2 reports the results of the analysis of the determinants of total net investment income. Specification (2.1) shows that net income rises in response to an increase of one percent in a country's NIIP/GDP by 0.02 of a percent of GDP. In specification (2.2) we replaced the NIIP with external assets and liabilities as separate variables, and these two variables have the expected positive and negative coefficients that are highly significant.

We also added the openness and financial development variables in specification (2.2). Capital account openness has a negative coefficient in specification (2.2) that is significant at the 10% level, and similar coefficients and levels of significance appear in the next two specifications. An increase in the Chinn-Ito index lowers net investment income by 0.01 of a percent of GDP. Trade openness also has a negative coefficient, which is significant at the 5% level here and in the following specification and at the 1% level in the last specification. An increase in trade openness by one percent of GDP lowers net income by 0.02 of a percent of GDP. We discuss these results below when reporting the results for direct investment income.

The financial development measure has a positive coefficient that is significant only at the 10% level. The coefficients of its two components, the development of financial institutions and markets, are not significant in specifications (2.3) and (2.4). Similarly, when we add the two governance variables in specification (2.4), neither has a significant coefficient.

In Table 3, we investigate the determinants of net direct investment income. The net direct investment position in specification (3.1) has a positive and significant coefficient, with a point estimate of 0.03 that is higher than the value of 0.02 for NIIP/GDP in the preceding table. The coefficients of direct investment assets and liabilities in the following specifications have the expected positive and negative signs that are always highly significant, and values that are higher or equal to the corresponding variables in Table 2.

Both capital account openness and trade openness increase the deficit in net direct investment income, and both sets of coefficients are significant at the 1% level. A one unit rise in the Chinn-Ito index lowers net income by 0.02 of a percent of GDP. The value of the coefficient of trade openness, -0.02, is the same as that reported in Table 2, -0.02. These results are consistent with a situation in which emerging market economies deregulated their capital accounts in order to allow multinational firms to establish domestic affiliates. The affiliated firms engage in trade and generate income for their parent firms. The increases in capital and trade openness in the period leading up to the financial crisis are consistent with the rise in the deficit in net income from direct investments up until 2008, and the relative lack of movement in openness since then is also consistent with the stable deficit of the last few years.

The financial development variable has an insignificant coefficient in specification (3.2). When we replace it with its components in specification (3.3), neither is significant. Similarly, neither of the two governance variables have significant coefficients in specification (3.4).

In Table 4 we investigate the determinants of net income from portfolio investments. The net position has the expected positive coefficient in specification (4.1), while portfolio income assets and liabilities have significant positive and negative effects on net income in specifications (4.2), (4.3) and (4.4).

The results for the determinant variables here are different from those for direct investment in the previous table. Capital account and trade openness, for example, are generally not significant, except at the 10% level in one specification each. This could indicate that the determinants of the returns on financial securities will differ from those on direct investments. Moreover, we aggregate the flows of income from portfolio equity and bonds, and they may also be influenced by different variables.

The financial development variable has a positive and significant coefficient when introduced in specification (4.2). When the two subindexes of development are added, the development of financial markets has a positive coefficient that is significant at the 5% level in specifications (4.3) and (4.4). The development of these markets can affect net payments through the payments received or those paid out, and we further examine this linkage below.

When we add the two domestic governance indicators in specification (4.4), both have negative coefficients. The coefficient for investor protection is significant at the 10% level. Payments on portfolio liabilities may be higher in emerging markets with more safeguards for foreign investors, and we also explore this below.

In Table 5 we examine the determinants of net income from other investments. The net position has a positive and significant coefficient in specification (5.1), and other investment assets and liabilities have the expected positive and negative effects on this form of income in the remaining specifications. Their values are close in absolute values to those reported in Table 4.

The income per capita variable has a negative coefficient that is statistically highly significant. An increase in income per capita of $1,000 lowers the income from other investments by -0.14 to -0.15 of a percent of GDP. Capital account openness, which had a negative coefficient in Table 3, has a positive but small impact on this form of income. A one

unit rise in the Chinn-Ito index raises income from other investments by 0.004 of a percent of GDP. In this case, a more open capital account may lead to more foreign investments that yield income. The financial development variables, on the other hand, and the governance variables are insignificant.

We also investigated the impact of openness and financial development on the income received from foreign reserves. However, the number of observations—171—is much lower than those reported in previous tables. This is consistent with the policy of many central banks to report little information about their reserves, including their composition.

An increase in reserves by one percent of GDP raises income payments by .01 of a percent of GDP. This is the smallest coefficient in absolute value in any of the results for the impact of a change in assets or liabilities on income, which is consistent with a low rate of return on the foreign exchange reserves. The GDP growth rate is linked to an increase in reserve income, as is income per capita. During the period leading up to the financial crisis, those emerging market economies that were growing rapidly built up their reserve positions. But the two types of openness do not seem to have an impact on reserve income, and neither does financial development.[12]

The results for the disaggregated income flows demonstrate that they respond to different factors. The openness of an economy can lead to outflows of income from direct investments, but capital openness has the opposite effect on income from other sources. Financial development, which is not significant for direct investment flows, does affect income from portfolio investments

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4.2 Gross Flows

To further explore these linkages, we also examined the gross flows of income credits and debits. In Table 6 we report the results for gross flows of credits from all investments (specification (6.1)), direct investments (specification (6.2)), portfolio investments (specification (6.3)) and other investments (6.4). Table 7 reports the corresponding results for gross flows of debits.

Increases in the various assets yield more credits, with the highest value (0.04) obtained for the income credits of direct investments, consistent with the existence of an equity premium. Moreover, all these estimates are higher than the return earned on reserve assets. GDP per capita has positive and significant coefficients for all investment income, direct investment income and other investment income inflows in specifications (6.1), (6.2) and (6.4). Richer emerging markets may be more active in making foreign investments of these kinds.

Capital openness is not significant in any of the estimating specifications. Trade openness has a negative and significant coefficient for all forms of income credits, but none of its components. More developed financial institutions are associated with lower portfolio income credits, possibly because domestic investors have less need of foreign securities when domestic markets have grown. The law and order variable has positive and significant coefficients in the specifications for all investment income as well as that derived from portfolio and other investments. A stable domestic environment may make its investors more willing to invest abroad.

Table 7 repeats the analysis for investment income debits. As in the previous table, the coefficient associated with payments on direct investment liabilities—0.03—is higher than those on portfolio investments, further evidence of an FDI "premium." Adler and Garcia-Macia (2018)

also interpret the higher return on the liabilities of emerging market economies as evidence of risk premia.

Capital account and trade openness appear with positive coefficients in specifications (10.1) and (10.2), and the levels of significance rise for both variables in the specification for direct investment income debits. This is consistent with the hypothesis advanced above that foreign firms invest in operations in the host country that engage in international trade, and these lead to profits and income payments for those firms. Capital account openness, on the other hand, lowers the payments on other investment income.

The effect of financial development on investment income takes place through portfolio income payments. The development of both financial institutions and markets lowers the payments on this form of liability. It may be that domestic financial development allows foreign investors to profit from capital gains as opposed to interest and dividends. On the other hand, both the legal system and investor safeguards increase income outflows, which lowers the net balance. Payments are more likely when there is a legal system that protects investors. Since we have aggregated the different forms of portfolio securities, it is not possible to determine whether payments on stocks or bonds are affected by these governance variables.

The results for the gross flows, therefore, lend some additional insight into the previous results. Direct investment assets and liabilities yield returns that are higher or equal to those on other forms of foreign investment. Capital account and trade openness are associated with higher payments on direct investment liabilities. Financial development lower portfolio debits, while legal and investor safeguards increase them.

4.3 Rates of Return

The results for the impacts on income of a change in the net position or the amounts of external assets or liabilities indicate that the returns on the different investments vary. This is consistent with the existence of a premium for both the risk and reduced liquidity of direct investments. To test whether the return on equity assets and liabilities are higher than those on other forms of foreign capital, we reestimated the equations for gross income investment credits and debits from Tables 6 and 7 (specifications (6.1) and (7.1)) but using each of the components of the external assets and liabilities as a determinant, both singly and together.

In Table 8, the dependent variable is total investment income credits/GDP, and the measures of assets are direct investment assets/GDP in specifications (8.1) and (8.4), portfolio investment assets/GDP in specifications (8.2) and (8.4), and other investment assets/GDP in specifications (8.3) and (8.4). A comparison of the asset coefficients in specifications (8.1), (8.2) and (8.3) indicate that a one percent change in the asset yields similar returns in investment income for direct investment and portfolio assets, and these are larger than those for other investment assets. However, when we include all the assets in specification (8.4), the return on direct investment assets—0.04—is larger than those on the other assets.

We repeat the exercise for the impact of the different liabilities on investment income debits in Table 12. In this case the dependent variable is total investment income debits/GDP, and the liabilities are direct investment liabilities/GDP (specifications (9.1) and (9.4)), portfolio investment liabilities/GDP (specifications (9.2) and (9.4)) and other investment liabilities/GDP (specifications (9.3) and (9.4)). There is evidence of a direct investment "premium" in the first three specifications. The coefficient of direct investment liabilities in specification (9.1)—0.04—is higher than the corresponding coefficients of 0.00 and 0.03 for portfolio and other investments

in specifications (9.2) and (9.3). When all the liabilities are included in specification (9.4), the impact of an increase in direct investment liabilities here of 0.03 is higher than that on portfolio income, -0.02, which is not significant, and equal to that on other investments.

The evidence shows that FDI assets and liabilities may have higher returns than other forms of foreign capital. This is consistent with the hypotheses of a premium on FDI outlined above. Moreover, the returns on all the liabilities are higher than that recorded on reserve assets (0.01), and explain why an external balance sheet composition that is "long reserves and debt, short equity" would result in investment income deficits.

4.4 Robustness

To examine the robustness of our results, we also estimated the main equations of interest using Zellner's seemingly unrelated regression (SUR) model. The different income flows could have error terms that are contemporaneously correlated. Under these circumstances, the use of the SUR method provides estimates that are more efficient than those obtained assuming independence of the error terms.

Table 10 reports the results of the estimations of specifications (3.4), (4.4) and (5.4). The R^2s for the three specifications are higher than the corresponding R^2s in the original estimates. For example, the R^2 for the specification with Net Direct Investment Income/GDP as the dependent variable here is 0.75, while the corresponding R^2 for specification (5.4) is 0.65. These results suggest that the error terms among the four equations are correlated.

The coefficient values of the variables of interest are generally similar to those reported in Tables 3, 4 and 5. In specification (3.4), for example, the coefficients for capital and trade openness are -0.02 and -0.02, each significant at the 1% levels; in specification (10.1), the

corresponding values are also -0.02 and -0.02, and both are significant at the 1% level. Similarly, in specification (4.4), the coefficient for financial markets is 0.01, and it is significant at the 5% level; in specification (10.2), the coefficient is the same and the level of significance is 1%. But some results differ. GDP per capita has positive and significant coefficients in specifications (10.1) and (10.2); neither of these are significant in specification (3.4) or (4.4).

Our results for the impact of openness and financial development on investment income, therefore, are confirmed by the SUR estimations. Capital and trade openness affect the deficit on FDI income, which is the main component of total investment income. The development of financial markets affects the flow of income on portfolio assets and liabilities.

We also undertook estimations that included global variables, such as the world growth rate and the U. S. Treasury rate, but without the time fixed effects. The results for capital and trade openness and financial development were quite similar.

We also examined whether our results changed if we excluded a country or a group of countries from the sample. Excluding China, for example, did not change the significance of capital account and trade openness for direct investment income or financial markets for portfolio investment income. Similarly, we excluded the East European and Baltic countries in our sample (Czech Republic, Estonia, Hungary, Latvia, Lithuania and Poland), and their exclusion did not materially change our results for direct investment income. However, the significance of financial markets for portfolio income fell. Similarly, the exclusion of the Latin American nations (Argentina, Brazil, Chile, Colombia, Mexico, Peru and Venezuela) did not change our findings.

5. Summary

Our results demonstrate that the net international investment income component of the current accounts of emerging markets has consistently registered deficits in recent decades. However, the sources of the investment income deficits changed over the period of financial globalization in the 1990s and 2000s. The most recent deficits consist mainly of payments on foreign direct investments, which is consistent with the change in the composition of the external balance sheets of emerging market economies.

Since the 1990s these countries increased their issuance of FDI liabilities while bank-related liabilities fell. The payments on these equity liabilities are often larger than on other external liabilities, which reflects their greater risk and lesser liquidity. These payments can also be interpreted as representing an "insurance premium," paid to equity holders in advanced economies who risk the loss of the value of the equity during a crisis.[13] The countries in our sample make these payments in return for sharing the risk of an economic downturn with those who hold the FDI liabilities.

The income payments on FDI liabilities of the emerging market economies increased in size as capital account and trade openness also increased during this period. Further openness of these economies as well as their growth, therefore, will contribute to additional payments to the multinational firms that establish operations in these countries. This future impact should be taken into account in assessing the efficacy of FDI. However, this need not be a negative aspect of FDI if it contributes to economic growth and employment in the host country.

The predominance of FDI income payments will most likely continue. The World Bank (2018) reports that FDI is the largest source of external finance for developing countries, and over 40% of global FDI flows in 2016 were directed to developing countries. Moreover, FDI

income in the form of retained earnings can serve as the basis of further FDI inflows.[14] The recent changes in the U.S. tax treatment of the profits of multinational firms will affect the decisions of U.S. based multinationals on the apportionment of retained versus repatriated earnings.

Financial development also has an impact on investment income flows through portfolio income flows. The development of financial markets increases net income from these sources by lowering the payments on the liabilities. The protection of investors' rights, on the other hand, increases these payments and the net income deficit from portfolio investments. Further research could separate the payments into those on stock versus those on bonds to examine how these may differ.

One aspect of these income flows that merits further analysis is their possible impact on income inequality within the emerging markets. Furceri and Loungani (2015) and Bumann and Lensink (2016) have reported that capital account liberalization can increase income inequality. Harrison (2005) and Guerriero and Sen (2012) have shown that FDI inflows in particular lower labor's share of income. The investment income payments on FDI liabilities may act as a channel of transmission that contributes to these findings.

Multinational firms are reassessing their investment strategies in the wake of a slowdown in international trade and the imposition of tariffs by the U.S. and China. However, flows of FDI continue to represent a significant source of external financing for emerging market economies, and future FDI will reflect the movement of production facilities to other parts of Asia. Our results indicate that FDI payments will remain as a source of future international investment income deficits for many emerging market economies. Moreover, if capital account and trade openness rise again as they did before the crisis, FDI payments will increase as well.

Notes

[1] The selection of countries was guided by the MSCI Emerging Markets Index, the FTSE Advanced and Secondary Emerging Markets Indexes, and the classification of countries used by Kose, Otrok and Prasad (2012).

[2] We included the inflation rate in the initial estimations but this variable was generally insignificant.

[3] See Svirydzenka (2016) for a description of these data.

[4] Aggarwal and Goodell (2009) examine the national attributes that lead to the development of equity markets and banking. Demirgüç-Kunt, Feyen and Levine (2013) describe how the relative importance of the two forms of finance—institutions vs. markets—changes as countries grow.

[5] Calderon and Kubota (2019) and Li, de Haan and Scholtens (2019) also use this methodology to deal with reverse causality.

[6] Baltagi, Griffin and Xiong (2000) support the use of pooled estimators to deal with heterogeneity.

[7] The yearly effects variables should account for the effect of global variables, such as world GDP growth.

[8] Damgaard and Elkjaer (2017) examine the role of special purpose entities in channeling FDI across borders.

[9] All correlations are available from the author.

[10] Crivelli, De Mooij and Keen (2016) report on profit shifting in developing economies.

[11] Reinvested earnings have been particularly important for U.S. FDI flows because of how the U.S. tax code dealt with foreign income. The recent change in the tax treatment of the foreign

profits of multinational enterprises will change this pattern. See UNCTAD (2018) for a discussion of the implications of the new tax system.

[12] The full results are available from the author.

[13] See our discussion of the research on this topic by Gourinchas, Rey and Govillot (2010) and Gourinchas, Rey and Truempler (2012) in Section 2.

[14] However, Hansen and Wagner (2018) point out that retained earnings can also be held in the host county as liquid assets. These could be repatriated rapidly if the multinationals become concerned about conditions in the host country.

Figure 1

Direct Investment Assets/GDP, Portfolio Investment Assets/GDP,
Other Investment Assets/GDP and Foreign Reserves/GDP

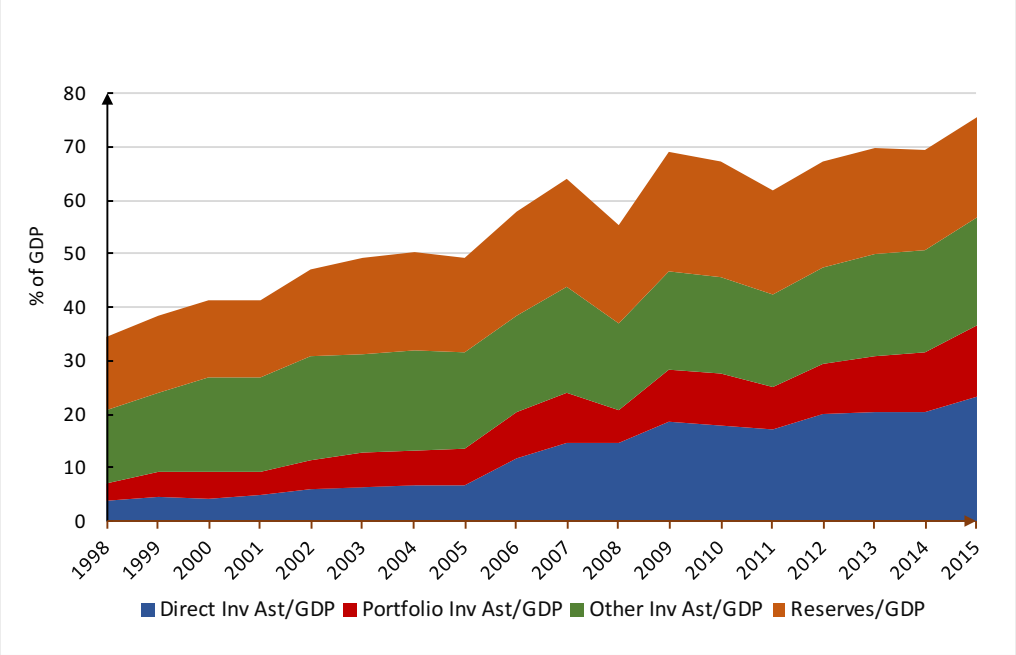

Figure 2

Domestic Investment Liabilities/GDP, Portfolio Investment Liabilities/GDP
And Other Investment Liabilities/GDP

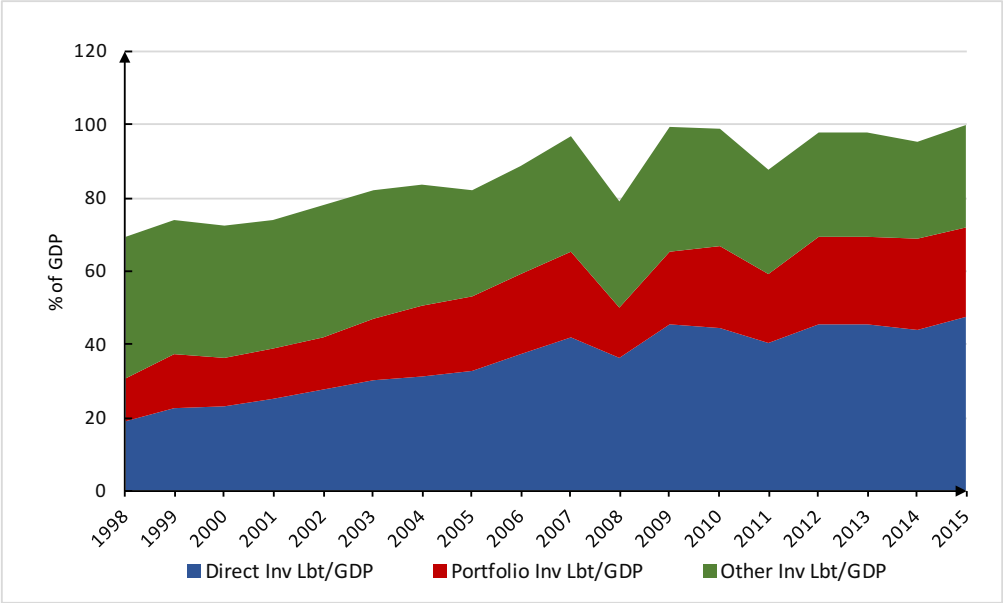

Figure 3

Current Account/GDP, Balance of Trade/GDP,
Net Primary Income/GDP and Net Secondary Income/GDP

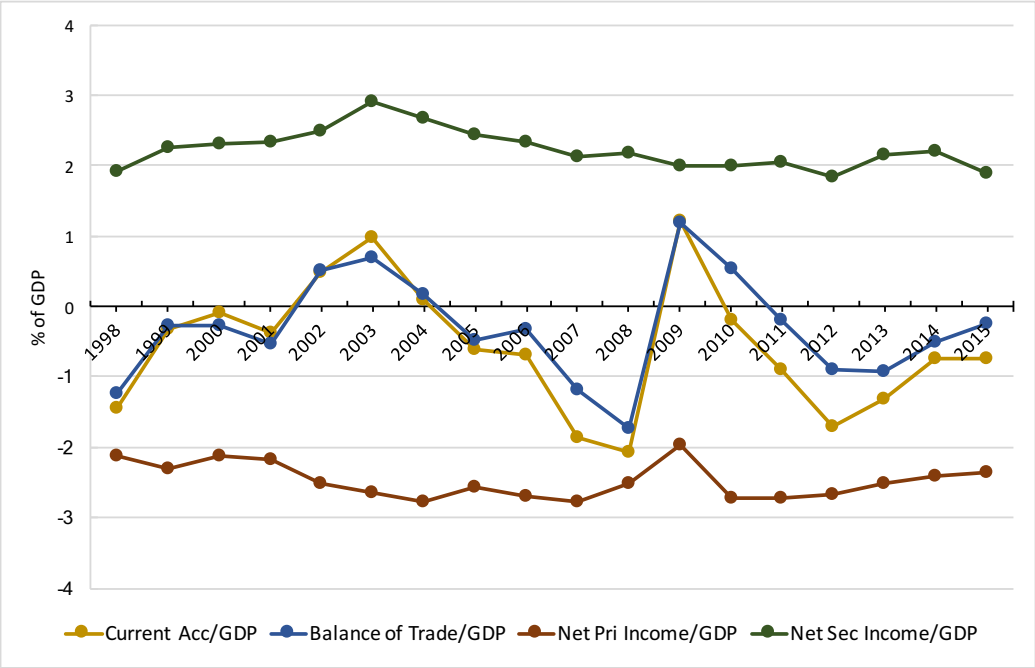

Figure 4

Net Direct Investment Income/GDP, Net Portfolio Income/GDP,
Net Other Investment Income/GDP and Reserves Income/GDP

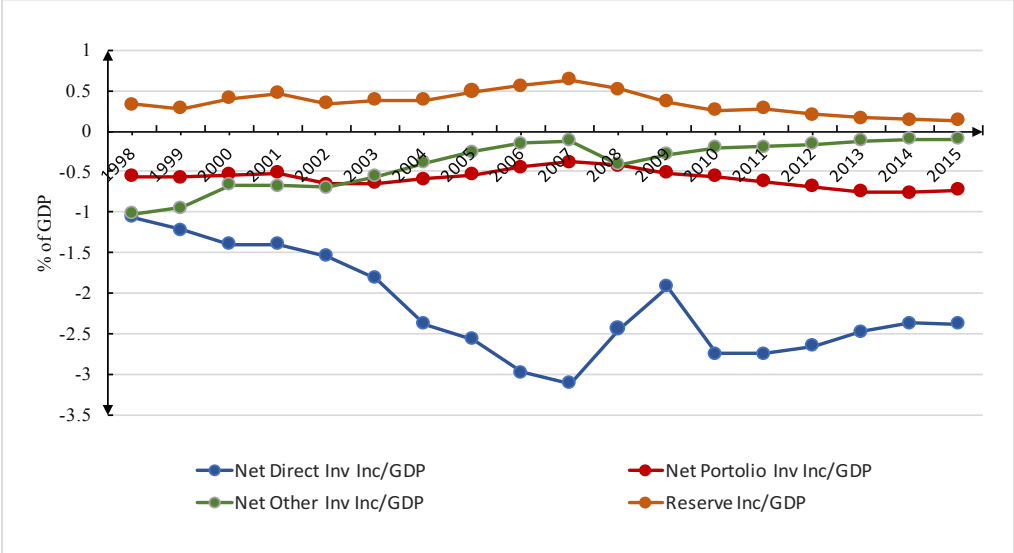

Table 1

Data and Sources

Variable	*Source*
Assets/GDP, Liabilities/GDP (%)	*EWN*
Capital Openness Index (rescaled to 1-100)	Chinn-Ito (2006)
Direct Investment Assets/GDP, Direct Investment Liabilities/GDP (%)	*EWN*
Direct Investment Income Credits/GDP, Direct Investment Income Debits/GDP (%)	*BOPS, WDI*
Exchange Rate (Domestic currency value of dollar, average)	*IFS*
Financial Development, Financial Institutions, Financial Markets (scaled to 1-100)	*FDI*
Domestic GDP Growth (%)	*WDI*
GDP per capita (constant 2010 thousands of $)	*WDI*
Investment Income Credits/GDP, Investment Income Debits/GDP (%)	*BOPS*
Investment Profile (1 – 12)	*ICRG*
Law & Order (1 – 6)	*ICRG*
NIIP/GDP (Net International Investment Position/GDP) (%)	*EWN*
Net Direct Investment Income/GDP, Net Investment Income/GDP, Net Portfolio Investment Income/GDP, Net Other Investment Income/GDP (%)	*BOPS, WDI*
Other Investments Assets/GDP, Other Investment Liabilities/GDP (%)	*EWN*
Other Investment Credits/GDP, Other Investment Debits/GDP (%)	*BOPS, WDI*
Portfolio Investment (Equity + Debt) Assets/GDP, Portfolio Investment (Equity + Debt Liabilities/GDP (%)	*EWN*
Portfolio Investment (Equity + Debt) Income Credits/GDP, Portfolio Investment (Equity + Debt) Income Debits/GDP (%)	*BOPS, WDI*
Reserves/GDP (%)	*EWN*
Reserve Income/GDP (%)	*BOPS, WDI*
Trade Openness (Exports + Imports/GDP) (%)	*WDI*

Note: *BOPS: Balance of Payments Statistics*, IMF; *EWN = External Wealth of Nations*, Lane and Milesi-Ferretti (2007)*; FDI = Financial Development Index Database,* IMF*; ICRG = International Country Risk Guide,* PRS Group; *WDI = World Development Indicators*, World Bank

Table 2

Net Investment Income/GDP

	(2.1)	(2.2)	(2.3)	(2.4)
NIIP/GDP	0.02***			
	(0.01)			
Assets/GDP		0.02***	0.02***	0.02***
		(0.01)	(0.01)	(0.01)
Liabilities/GDP		-0.02***	-0.02***	-0.02***
		(0.01)	(0.01)	(0.01)
GDP Growth	-0.00	-0.00	-0.00	-0.01
	(0.02)	(0.02)	(0.02)	(0.02)
Δ Ln(Exchange Rate)	-0.64	-0.50	-0.49	-0.49
	(0.42)	(0.46)	(0.47)	(0.45)
GDP Per Capita	-0.17*	-0.13	-0.07	-0.04
	(0.10)	(0.12)	(0.10)	(0.09)
Capital Openness		-0.01*	-0.01*	-0.01*
		(0.00)	(0.00)	(0.00)
Trade Openness		-0.02**	-0.02**	-0.02***
		(0.01)	(0.01)	(0.01)
Financial Development		0.02*		
		(0.01)		
Financial Institutions			-0.01	-0.01
			(0.02)	(0.02)
Financial Markets			0.01	0.01
			(0.01)	(0.01)
Law & Order				0.15
				(0.15)
Investment Profile				-0.05
				(0.06)
Constant	-1.29	-1.48*	-1.33	-1.91*
	(0.81)	(0.89)	(0.88)	(1.15)
R^2	0.61	0.64	0.64	0.68
N	487	487	487	478

Note: All variables are lagged. Country and time fixed effects are also included. The symbols *, **, *** denote statistical significance of 10%, 5% and 1%.

Table 3

Net Foreign Direct Investment Income/GDP

	(3.1)	(3.2)	(3.3)	(3.4)
Net Direct Inv/GDP	0.03***			
	(0.01)			
Direct Inv Assets/GDP		0.03***	0.03***	0.02***
		(0.01)	(0.01)	(0.01)
Direct Inv Liabilities/GDP		-0.02**	-0.02***	-0.02**
		(0.01)	(0.01)	(0.01)
GDP Growth	-0.02	-0.03*	-0.02	-0.03
	(0.02)	(0.02)	(0.02)	(0.02)
Δ Ln(Exchange Rate)	-0.33	-0.36	-0.36	-0.36
	(0.31)	(0.35)	(0.34)	(0.34)
GDP Per Capita	-0.00	0.10	0.08	0.07
	(0.08)	(0.10)	(0.09)	(0.09)
Capital Openness		-0.02***	-0.02***	-0.02***
		(0.00)	(0.00)	(0.00)
Trade Openness		-0.02***	-0.02***	-0.02***
		(0.01)	(0.01)	(0.01)
Financial Development		0.01		
		(0.01)		
Financial Institutions			0.01	0.01
			(0.02)	(0.02)
Financial Markets			0.00	-0.00
			(0.01)	(0.01)
Law & Order				0.16
				(0.11)
Investment Profile				0.03
				(0.04)
Constant	-0.22	-0.27	-0.22	-0.65
	(0.62)	(0.70)	(0.70)	(0.88)
R^2	0.50	0.61	0.60	0.67
N	463	463	463	454

Note: All variables are lagged. Country fixed effects are also included. The symbols *, **, *** denote statistical significance of 10%, 5% and 1%.

Table 4

Net Portfolio Investment Income/GDP

	(4.1)	(4.2)	(4.3)	(4.4)
Net Portfolio Inv/GDP	0.02***			
	(0.00)			
Portfolio Inv Assets/GDP		0.02***	0.02***	0.02***
		(0.00)	(0.00)	(0.00)
Portfolio Inv Liabilities/GDP		-0.02***	-0.02***	-0.02***
		(0.00)	(0.00)	(0.00)
GDP Growth	0.02***	0.02***	0.02***	0.01
	(0.01)	(0.01)	(0.01)	(0.01)
Δ Ln(Exchange Rate)	0.09	0.03	0.04	0.03
	(0.22)	(0.24)	(0.25)	(0.23)
GDP Per Capita	0.01	-0.03	-0.02	0.02
	(0.02)	(0.02)	(0.02)	(0.03)
Capital Openness		0.00	0.00	0.00*
		(0.00)	(0.00)	(0.00)
Trade Openness		0.00*	0.00	-0.00
		(0.00)	(0.00)	(0.00)
Financial Development		0.01**		
		(0.01)		
Financial Institutions			0.01	0.01*
			(0.01)	(0.01)
Financial Markets			0.01**	0.01**
			(0.00)	(0.00)
Law & Order				-0.12
				(0.07)
Investment Profile				-0.03*
				(0.02)
Constant	-1.61**	-1.83***	-1.82***	-1.69***
	(0.67)	(0.64)	(0.58)	(0.64)
R^2	0.56	0.55	0.54	0.52
N	444	444	444	435

Note: All variables are lagged. Country and time fixed effects are also included. The symbols *, **, *** denote statistical significance of 10%, 5% and 1%.

Table 5

Net Other Investment Income/GDP

	(5.1)	(5.2)	(5.3)	(5.4)
Net Other Inv/GDP	0.02***			
	(0.00)			
Other Inv Assets/GDP		0.02***	0.02***	0.02***
		(0.00)	(0.00)	(0.00)
Other Inv Liabilities/GDP		-0.02***	-0.02***	-0.02***
		(0.00)	(0.00)	(0.00)
GDP Growth	0.01	0.00	0.00	0.00
	(0.01)	(0.01)	(0.01)	(0.01)
Δ Ln(Exchange Rate)	-0.14	-0.02	-0.02	-0.04
	(0.17)	(0.18)	(0.18)	(0.19)
GDP/Per Capita	-0.15***	-0.14***	-0.14***	-0.14***
	(0.03)	(0.04)	(0.03)	(0.04)
Capital Openness		0.00**	0.00**	0.00**
		(0.00)	(0.00)	(0.00)
Trade Openness		-0.00	-0.00	0.00
		(0.00)	(0.00)	(0.00)
Financial Development		0.00		
		(0.01)		
Financial Institutions			0.00	-0.00
			(0.01)	(0.01)
Financial Markets			0.00	0.00
			(0.00)	(0.00)
Law & Order				0.09
				(0.07)
Investment Profile				-0.03
				(0.03)
Constant	0.07	-0.06	-0.05	-0.29
	(0.43)	(0.38)	(0.40)	(0.49)
R^2	0.70	0.66	0.66	0.65
N	454	454	454	445

Note: All variables are lagged. Country and time effects are also included. The symbols *, **, *** denote statistical significance of 10%, 5% and 1%.

Table 6

Total Investment Income Credits/GDP, Direct Investment Income Credits/GDP, Portfolio Investment Credits/GDP, Other Investment Income Credits/GDP

	(6.1)	(6.2)	(963)	(6.4)
	Inv Inc Credits/GDP	Direct Inv Inc Credits/GDP	Portfolio Inv Inc Credits/GDP	Other Inv Inc Credits/GDP
Asset/GDP	0.03***			
	(0.00)			
Direct Inv Assets/GDP		0.04***		
		(0.01)		
Portfolio Inv Assets/GDP			0.02***	
			(0.00)	
Other Inv Assets/GDP				0.01***
				(0.00)
Δ Ln(Exchange Rate)	-0.01	0.14	0.19***	-0.16
	(0.21)	(0.11)	(0.06)	(0.13)
GDP Per Capita	0.17***	0.11***	0.01	0.06**
	(0.04)	(0.03)	(0.01)	(0.03)
Capital Openness	0.00	0.00	0.00	-0.00
	(0.00)	(0.00)	(0.00)	(0.00)
Trade Openness	-0.01***	-0.00	-0.00	0.00
	(0.00)	(0.00)	(0.00)	(0.00)
Financial Institutions	0.01	0.00	-0.01***	0.01
	(0.01)	(0.01)	(0.00)	(0.00)
Financial Markets	0.00	0.00	0.00	0.00
	(0.00)	(0.00)	(0.00)	(0.00)
Law & Order	0.17**	-0.01	0.05**	0.15***
	(0.07)	(0.06)	(0.02)	(0.04)
Investment Profile	0.03	0.02	0.01	-0.02
	(0.03)	(0.02)	(0.01)	(0.02)
Constant	-1.76***	-1.00***	-0.04	-0.16
	(0.42)	(0.31)	(0.16)	(0.32)
R^2	0.81	0.76	0.56	0.67
N	478	454	436	446

Note: The dependent variables are reported above the columns. All independent variables are lagged. Country and time fixed effects are also included. The symbols *, **, *** denote statistical significance of 10%, 5% and 1%.

Table 7

Total Investment Income Debits/GDP, Direct Investment Income Debits/GDP, Portfolio Investment Debits/GDP, Other Investment Income Debits/GDP

	(7.1)	(7.2)	(7.3)	(7.4)
	Inv Inc Debits/GDP	Direct Inv Inc Debits/GDP	Portfolio Inv Inc Debits/GDP	Other Inv Inc Debits/GDP
Liabilities/GDP	0.03***			
	(0.00)			
Direct Inv Liabilities/GDP		0.03***		
		(0.01)		
Portfolio Inv Liabilities/GDP			0.02***	
			(0.00)	
Other Inv Liabilities/GDP				0.03***
				(0.00)
GDP Growth	0.01	0.03*	-0.01*	-0.00
	(0.02)	(0.02)	(0.01)	(0.01)
Δ Ln (Exchange Rate)	0.55	0.41	0.24	0.02
	(0.53)	(0.36)	(0.28)	(0.31)
GDP Per Capita	0.13	0.02	-0.01	0.17***
	(0.10)	(0.09)	(0.02)	(0.03)
Capital Openness	0.01**	0.02***	-0.00	-0.00**
	(0.00)	(0.00)	(0.00)	(0.00)
Trade Openness	0.01*	0.01**	-0.00	-0.00
	(0.01)	(0.01)	(0.00)	(0.00)
Financial Institutions	0.02	-0.01	-0.01**	0.00
	(0.02)	(0.02)	(0.01)	(0.01)
Financial Markets	0.00	0.01	-0.01**	-0.00
	(0.01)	(0.01)	(0.00)	(0.00)
Law & Order	-0.01	-0.15	0.17***	0.04
	(0.14)	(0.12)	(0.06)	(0.06)
Investment Profile	0.04	-0.05	0.04**	0.01
	(0.06)	(0.04)	(0.02)	(0.03)
Constant	0.95	-0.11	1.58***	0.29
	(1.10)	(0.96)	(0.54)	(0.37)
R^2	0.81	0.77	0.69	0.78
N	478	458	438	445

Note: The dependent variables are reported above the columns. All independent variables are lagged. Country and time fixed effects are also included. The symbols *, **, *** denote statistical significance of 10%, 5% and 1%.

Table 8

Total Investment Income Credits/GDP with Direct Investment Assets/GDP, Portfolio Investment Assets/GDP and Other Investment Assets/GDP

	(8.1)	(8.2)	(8.3)	(8.4)
Direct Inv Assets/GDP	0.04***			0.04***
	(0.01)			(0.01)
Portfolio Inv Assets/GDP		0.04***		0.03***
		(0.01)		(0.01)
Other Inv Assets/GDP			0.01**	0.01**
			(0.00)	(0.00)
Δ Ln (Exchange Rate)	0.18	0.11	0.17	0.20
	(0.18)	(0.21)	(0.21)	(0.19)
GDP/Per Capita	0.16***	0.15***	0.17***	0.14***
	(0.04)	(0.04)	(0.04)	(0.04)
Capital Openness	-0.00	0.00	0.00	-0.00
	(0.00)	(0.00)	(0.00)	(0.00)
Trade Openness	-0.00	0.00	0.00	-0.01*
	(0.00)	(0.00)	(0.00)	(0.00)
Financial Institutions	0.02**	0.02*	0.02**	0.01*
	(0.01)	(0.01)	(0.01)	(0.01)
Financial Markets	0.01	0.01	0.01	0.01
	(0.00)	(0.00)	(0.00)	(0.00)
Law & Order	0.08	0.08	0.14*	0.11
	(0.08)	(0.08)	(0.08)	(0.07)
Investment Profile	-0.00	-0.02	-0.03	0.01
	(0.03)	(0.03)	(0.03)	(0.03)
Constant	-0.52			-0.77*
	(0.45)			(0.43)
R^2	0.79	0.61	0.57	0.82
N	478	477	477	477

Note: All independent variables are lagged. Country fixed and time effects are also included. The symbols *, **, *** denote statistical significance of 10%, 5% and 1%.

Table 9

Total Investment Income Debits/GDP with Direct Investment Liabilities/GDP, Portfolio Investment Liabilities/GDP and Other Investment Liabilities/GDP

	(9.1)	(9.2)	(9.3)	(9.4)
Direct Inv Liabilities/GDP	0.04***			0.03***
	(0.01)			(0.01)
Portfolio Inv Liabilities/GDP		0.00		-0.02
		(0.01)		(0.01)
Other Inv Liabilities/GDP			0.03***	0.03***
			(0.01)	(0.01)
GDP Growth	-0.00	-0.01	0.02	0.02
	(0.02)	(0.02)	(0.02)	(0.02)
Δ Ln (Exchange Rate)	0.93*	0.94*	0.72	0.77
	(0.53)	(0.55)	(0.54)	(0.52)
GDP/Per Capita	0.24**	0.21*	0.03	0.10
	(0.09)	(0.11)	(0.11)	(0.09)
Capital Openness	0.01**	0.02***	0.01**	0.01*
	(0.00)	(0.01)	(0.01)	(0.00)
Trade Openness	0.02***	0.03***	0.02***	0.02***
	(0.01)	(0.01)	(0.01)	(0.01)
Financial Institutions	0.03	0.04*	0.01	0.01
	(0.02)	(0.02)	(0.02)	(0.02)
Financial Markets	-0.00	0.00	0.01	0.01
	(0.01)	(0.01)	(0.01)	(0.01)
Law & Order	-0.04	-0.02	0.09	0.06
	(0.14)	(0.16)	(0.15)	(0.14)
Investment Profile	-0.01	0.00	0.07	0.05
	(0.06)	(0.06)	(0.06)	(0.06)
Constant	0.98	0.57	1.24	1.38
	(1.15)	(1.26)	(1.22)	(1.12)
R^2	0.81	0.74	0.76	0.81
N	478	477	477	477

Note: All independent variables are lagged. Country and time fixed effects are also included. The symbols *, **, *** denote statistical significance of 10%, 5% and 1%.

Table 10

Net Direct Investment Income/GDP, Net Portfolio Investment Income/GDP, Net Other Investment Income/GDP: Seemingly Unrelated Regressions

	(10.1)	(10.2)	(10.3)
	Net Dir Inv Inc/GDP	Net Port Inv Inc/GDP	Net Oth Inv Inc/GDP
Direct Inv Assets/GDP	0.03***		
	(0.01)		
Direct Inv Liabilities/GDP	-0.01		
	(0.01)		
Portfolio Inv Assets/GDP		0.01***	
		(0.00)	
Portfolio Inv Liabilities/GDP		-0.03***	
		(0.00)	
Other Inv Assets/GDP			0.02***
			(0.00)
Other Inv Liabilities/GDP			-0.03***
			(0.00)
GDP Growth	-0.05***	0.02***	0.01
	(0.02)	(0.01)	(0.01)
Δ Ln (Exchange Rate)	-0.70	-0.63***	-0.21
	(0.45)	(0.24)	(0.22)
GDP/Per Capita	0.18***	0.06**	-0.14***
	(0.06)	(0.02)	(0.03)
Capital Openness	-0.02***	-0.00	0.00
	(0.00)	(0.00)	(0.00)
Trade Openness	-0.02***	-0.00	0.01**
	(0.01)	(0.00)	(0.00)
Financial Institutions	-0.01	-0.00	0.01**
	(0.01)	(0.01)	(0.01)
Financial Markets	0.00	0.01***	0.01***
	(0.01)	(0.00)	(0.00)
Law & Order	0.16	-0.10**	0.16***
	(0.11)	(0.05)	(0.05)
Investment Profile	0.08	0.00	0.02
	(0.05)	(0.02)	(0.02)
Constant	-0.95	-2.21***	-1.34***
	(0.68)	(0.40)	(0.36)
R^2	0.75	0.67	0.74
N	454	434	445

Note: The dependent variables are reported above the columns. All independent variables are lagged. Country and time fixed effects are also included. The symbols *, **, *** denote statistical significance of 10%, 5% and 1%.

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Table A1

Summary Statistics

Variable	*Mean*	*Minimum*	*Maximum*	*Standard Dev*
Assets/GDP	53.01	5.52	256.43	37.74
Capital Openness	53.09	0.00	100.00	15.66
Direct Inv Assets/GDP	10.98	0.00	187.40	23.03
Direct Inv Income Credits/GDP	0.49	-0.24	10.74	1.12
Direct Inv Income Debits/GDP	2.48	-5.39	14.99	2.60
Direct Inv Liabilities/GDP	32.46	2.15	245.69	31.63
Δ Ln(Exchange Rate)	0.05	-0.33	1.23	0.15
Financial Development	39.99	10.00	86.00	14.26
Financial Institutions	43.19	15.00	82.00	15.21
Financial Markets	35.91	3.00	89.00	10.02
Domestic Income Growth	4.16	-14.81	18.29	3.99
GDP Per Capita	7.94	0.62	24.97	5.09
Inv Income Credits/GDP	1.60	0.06	12.20	1.42
Inv Income Debits/GDP	4.38	-1.02	18.50	2.81
Investor Profile	8.21	2.42	12.00	2.09
Law & Order	3.60	1.00	6.00	1.11
Liabilities/GDP	83.44	26.24	381.01	50.76
Net Direct Inv Income/GDP	-1.99	-12.38	5.27	2.00
Net Inv Income/GDP	-2.77	-12.11	3.16	2.08
NIIP/GDP	-0.30	-1.60	0.61	0.29
Net Portfolio Inv Income/GDP	-0.55	-5.85	1.31	0.71
Net Other Inv Income/GDP	-0.48	-4.87	2.69	0.98
Other Inv Assets/GDP	17.10	1.27	96.49	16.54
Other Inv Credits/GDP	0.77	0.00	5.71	0.80
Other Inv Debits/GDP	1.26	0.15	6.87	1.13
Other Inv Liabilities/GDP	32.03	4.40	148.51	24.80
Portfolio Inv Assets/GDP	7.01	0.02	57.07	9.55
Portfolio Inv Credits/GDP	0.32	0.00	1.56	0.34
Portfolio Inv Debits/GDP	0.86	0.00	5.94	0.73
Portfolio Liabilities/GDP	17.79	0.20	66.37	21.21
Reserves/GDP	17.16	0.64	50.95	10.72
Reserves Income/GDP	0.30	0.00	1.32	0.29
Trade Openness	75.06	15.64	220.41	43.09