

# Financial Reforms and Capital Flows to Emerging Europe\*

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## Abstract

Analysis of 21 emerging European economies reveals a substantial role for domestic financial reforms in attracting net capital flows. Controlling for standard determinants of capital flows, we find in particular banking sector reforms to be consistent with larger current account deficits and net financial inflows, whereas opposite or no effects are found for security market reforms as well as for indicators of financial depth. Additional net inflows are reaped by the EU accession countries. Banking reforms are found to have a significant impact on FDI and “other” investment net inflows; they have a significant effect on gross financial inflows, but not on outflows.

**Keywords:** current account, capital flows, financial reforms, financial development

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# 1 Introduction

Over the last decade, emerging European economies were able to run persistent current account deficits, whereas emerging Asian and the oil exporting countries ran current account surpluses. This has invoked different hypotheses as to global current account imbalances: a frequently mentioned explanation is the inefficiency of the financial systems in emerging economies (Prasad, Rajan, and Subramanian, 2007; Ju and Wei, 2006). A related argument is that emerging economies seek high quality assets of industrial countries (Caballero, Farhi, and Gourinchas, 2006; Mendoza, Quadrini, and Rios-Rull, 2008). Both arguments support the ‘saving’s glut hypothesis’ (Bernanke, 2005, 2007) and explain the persistent current account surpluses of financially underdeveloped emerging countries; they also give reason to why the United States are the main recipient of international capital flows. However, studies such as Lane (2008) and Hermann and Winkler (2008) report that the new EU accession countries were able to receive substantial net financial inflows in recent years.

This paper examines the role of financial development for this unique European experience. More specifically, we analyse if countries with more developed financial systems attract net capital inflows, that is, are able to run bigger current account deficits.<sup>1</sup> While the standard (medium-term) determinants of current account patterns have been prominently established by Chinn and Prasad (2003) and Gruber and Kamin (2007), there is no consensus yet on the role of domestic financial systems for international capital flows.

Financial development comprises two crucial concepts: financial liberalisation and financial deepening (Agca, De Nicolo, and Detragiache, 2007). Financial liberalisation refers to a lower degree of government involvement, and a subsequently more market based financial system. Financial deepening, on the other hand, refers to increases in volumes of markets (such as increases in market capitalisation and liquidity). Both can move hand in hand, but Agca et al. (2007) mention examples where the two are independent.<sup>2</sup>

This paper, in a novel approach to the international capital flows literature, will not only consider volume-based measures of financial deepening, but also financial liberalisation as a result of financial policy reforms. The rationale for this is two-fold: financial reforms, implying enhanced, market based financial systems, may attract higher financial flows contemporaneously; furthermore financial reforms can be regarded as a promise for larger and deeper capital markets in the future. Detragiache and Tressel (2008) find that reforms have indeed led to more financial deepening in the banking sector provided that the legal and institutional framework is functioning. Both dimensions of financial development matter for international as well as for domestic investors, hence affecting gross and net financial flows.

In order to analyse the role of financial development for net capital inflows in Emerging Europe in a comprehensive way, we include measures of financial reforms, financial depth, and various indicators of financial integration. In particular, we consider two categories of

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<sup>1</sup>The standard measure for net financial inflows is the current account balance. See Section 2.2 for potential differences between current account balances and net financial inflows.

<sup>2</sup>France in the 1970s had deep, but repressed financial markets, whereas Argentina exhibited liberalised, but shallow markets in the 1990s.

financial reforms: banking sector and security market reforms. Moreover, heterogeneous effects of financial development on different investment categories (in particular on FDI) as well as on gross inflows and outflows are examined. Our paper uses an index maintained by the European Bank for Reconstruction and Development (EBRD, 2007), focusing on the years 1989 - 2007 and including 29 countries from Central and Eastern Europe (CEE), South-Eastern Europe (SEE), and the Commonwealth of Independent States (CIS).

The driving forces behind financial reforms (these are for example liberalisations in credit or interest controls and the privatisation of the banking sector) were analysed by Abiad and Mody (2005), who developed a new index on financial reforms which was subsequently extended by Abiad, Detragiache, and Tressel (2008).<sup>3</sup> Abiad and Mody (2005) find balance of payments crises, falling global interest rates, path dependency, regional leaders, and trade openness (for the least developed countries) to be positive factors towards financial reforms, whereas banking crises are a negative influence. Additionally, financial reforms have a political economy dimension as government action is needed to implement them. Mishkin (2007) suggests that governments have a self-interest in a state-owned banking sector.<sup>4</sup>

Campos and Kinoshita (2008) find that gross FDI inflows are strongly affected by financial sector reforms. But theoretically the effect on *net* capital flows is *a priori* ambiguous. For example, reforms rendering an economy more attractive to domestic as well as foreign investors can lead to increased inflows and less outflows, thereby lowering the current account. On the other hand, reforms promoting financial sector development may foster domestic savings and domestic investment. This could reduce the need for foreign funds by encouraging sufficient domestic savings, thereby reducing net inflows.

For a sample of European and Asian emerging economies, Hermann and Winkler (2008) report that deeper and more integrated financial markets are beneficial in order to receive net capital inflows. In particular, the CEE countries were able to run large current account deficits over the last decade, leading to rapid convergence with the EU countries in output and living standards. Brezigar-Masten et al. (2007) find non-linear growth effects of financial development for less developed European countries, whereas the effects of international financial integration are only significant beyond a threshold level of financial development. Lane and Milesi-Ferretti (2007b) point out the importance of FDI inflows for the CEE countries. Hermann and Winkler suggest that predominantly high levels of FDI in the banking sectors of the CEE group are a key factor for receiving high levels of capital inflows.

The IMF's World Economic Outlook (October 2008) presents evidence closely related to our research: the authors' analysis concludes that the importance of financial liberali-

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<sup>3</sup>Past advances in measuring financial liberalisation include Edison and Warnock (2003), who construct an "investable" equity index as a measure for intensity of capital controls, Kaminsky and Schmukler (2003) who develop an index focusing on stock market regulations as well as international transactions, and Bekaert, Harvey, and Lundblad (2005), who determine dates of equity market liberalisations and find a subsequent positive effect on economic growth.

<sup>4</sup>Rajan and Zingales (2003) state that incumbents in financial and industrial sectors oppose financial reforms (which only changes if the economy is open to trade *and* capital flows). Bartolini and Drazen (1997) come to the conclusion that reforms are likely if access to international capital is facilitated.

sation (as measured by the reforms index of Abiad et al.) is highest for the CEE countries, which they attribute to the strong presence of foreign banks in the region. Abiad, Leigh, and Mody (2007) show that for the sub-sample of new European Union member states, increasing financial integration leads to receiving *down-hill* capital flows from the richer European countries, thereby facilitating convergence in European income levels. Lane (2008) attributes this to the multi-dimensional character of the institutional anchor provided by European Union membership, which has eliminated many of the barriers to international capital flows that are still faced by other emerging market economies.

The remainder of the paper is organised as follows: in Section two the dataset is presented, followed by the empirical strategy in Section three. The results are presented in Section four, and Section five concludes.

## 2 Data

### 2.1 EBRD Data On Financial Reforms

The European Bank for Reconstruction and Development (EBRD) publishes data on financial sector reforms as part of its annual Transition Report (EBRD, 2008). This report assesses emerging economies against the standards of industrialised market economies, and provides reform scores to reflect the assessments of EBRD country economists.<sup>5</sup>

For this paper, two scores are relevant: 1. banking reforms and interest rate liberalisation and 2. securities markets and non-bank financial institutions. In both of these categories, scores range from one to four (where four implies the highest degree of implemented reforms).<sup>6</sup> This allows use of an unweighted financial reforms index as well as separate component-indices.

Regarding banking reforms, the lowest scores are allocated to countries with little progress beyond the establishment of a central bank and commercial banks, whereas high scores imply the (full) adoption of BIS standards as well as functioning banking competition and supervision.

Reforms of securities markets and non-bank financial institutions refer to working, private security exchanges as well as the emergence of private investment and pension funds, and regulation that meets the International Organization of Securities Commissions's (IOSCO) standards.<sup>7</sup>

### 2.2 Other Data Sources

In this paper we use both current account and financial account data in order to determine net financial inflows. These data were retrieved from the IMF's International Financial

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<sup>5</sup>See Appendix A2 for a list of countries captured in the Transition Report.

<sup>6</sup>The EBRD economists also use incremental scores of 0.33 and 0.66 (for example 2.33 to indicate 2+). As can be seen in the Appendix, full adoption of highest international standards would result in a 4+, thus a value of 4.33. However, the highest score given for our sample of countries is four.

<sup>7</sup>See Appendix A1 for a detailed description by the EBRD about its way of scoring.

Statistics (IFS) and Balance of Payments Statistics (BOPS).<sup>8</sup> In the multilateral international capital flows literature, focus is almost exclusively put on current accounts to measure net financial inflows. The reason is the Balance of Payments Identity, which states that the current account is equal (with sign reversed) to the capital and financial account (provided that there are no errors and omissions, IMF, 1993).<sup>9</sup> As it is our goal to consider financial inflows and outflows separately as well as net balances from the different investment categories, we also analyse financial account data. In the IMF's (1993) definition, the financial account is the net change in foreign ownership of investment assets. It is divided into direct investments, portfolio investments, other investments, and reserve assets transactions. Thus, given the above stated identity, the difference between the current and financial accounts is the capital account, which reports the transfer of capital goods and other capital transfers such as debt forgiveness.

In order to explore the role of foreign direct investments (FDI) further, we use BOPS data which distinguishes between equity capital, reinvested earnings, and other direct investment capital. Another source of FDI data is the UNCTAD database. It not only publishes overall FDI figures, but also data on cross-border mergers and acquisitions (M&As).

Updated data from the External Wealth of Nations dataset (Lane and Milesi-Ferretti, 2007a) provide information on the external financial positions of our sample countries. The World Bank's World Development Indicators supply us with data on exports and imports, the age-dependency ratio, and GDP per capita. From the EBRD transition dataset, we obtain data on fiscal balances and GDP growth. Data on stock market capitalisation are retrieved from Datastream and Standard and Poor's, whereas banking deposits data come from IFS.

Data on measures of financial openness are employed, namely the ratio of the sum of foreign assets and liabilities to GDP (Lane and Milesi-Ferretti, 2007a) as a *de-facto* measure and updated *de-jure* data by Chinn and Ito (2008). Furthermore, we include BIS data on consolidated foreign claims of Euro Area banks on the respective transition country as a percentage of GDP of the recipient countries. We use the share of foreign banks (and the share of banking assets held by foreign banks) as provided by Claessens et al. (2008). Banking and currency crisis indicators are obtained from Laeven and Valencia (2008).

In a set of estimations on net capital inflows (with a particular focus on FDI), we use further transition indicators from the EBRD (2008). We construct a measure of privatisation (as an unweighted average of large scale and small scale privatisation scores), and use an overall infrastructure indicator (covering electric power, railways, roads, and telecommunications) and a corporate governance and enterprise restructuring indicator. The scoring system used by the EBRD is the same as for the financial reform variables.<sup>10</sup>

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<sup>8</sup>For an overview of the other variables used in the analysis, refer to Appendix A3.

<sup>9</sup>In general, the term capital account is often used to describe what the IMF defines as the combined "capital and financial account".

<sup>10</sup>See the methodology of the EBRD Transition Report 2007 for details about these scores.

## 3 Empirical Strategy

### 3.1 Econometric Specifications

#### 3.1.1 Medium-term Analysis

As is common in this literature (for example, Chinn and Prasad, 2003; Gruber and Kamin, 2007), we focus on medium-term fluctuations of current accounts. The main purpose of this is to avoid short-term cyclical factors blurring the estimations.

We employ panel data techniques with non-overlapping three-year averages for each country and variable. By least squares we run the following reduced form model

$$CAY_{it} = \alpha + \delta_t + \beta X_{it} + \gamma Y_{it} + \phi Z_{it} + e_{it} \quad (1)$$

where  $CAY_{it}$  is the current account to GDP ratio,  $X_{it}$  includes standard current account determinants,  $Y_{it}$  includes financial reforms indicators, and  $Z_{it}$  comprises financial deepening and integration variables.<sup>11</sup> Furthermore, we run regression specifications employing gross inflows and outflows, and net inflows as dependent variables, respectively. This allows for analysis of capital flows across different investment categories and disentangling potential differences in the investment behaviour of foreign and domestic agents.

We include heteroskedasticity-robust standard errors as well as time dummies to allow the average current account position to vary over time and to control for global factors influencing all countries in our sample. In the main specifications, we abstain from using country fixed effects, as our focus is on explaining cross-country variations.

In order to work with a balanced panel of appropriate country coverage in both the time and cross-sectional dimensions, we average over three-year periods. Our panel comprises the years 1995 to 2006, such that we include 19 countries and four time periods. With regard to our particular sample of transition countries, this time frame is appropriate as it follows much of the convergence process of these economies, but without including a potential transition bias due to the strong impact of shifting from planned to market economies (in the period from 1990 to 1994).

#### 3.1.2 Annual Data

As a robustness analysis, we also employ annual data. As shown by Chinn and Prasad (2003), results at annual frequency are comparable to medium-term results, but tend to be less precise. Similar to the medium-term analysis, we estimate

$$CAY_{it} = \alpha_i + \delta_t + \beta X_{it} + \gamma Y_{it} + \phi Z_{it} + e_{it} \quad (2)$$

where  $e_{it} = \rho e_{it-1} + z_{it}$ . Thus, we include an AR(1) correction term and heteroskedasticity-robust standard errors as well as country and year dummies. As such, we put more emphasis on within-country developments over time.

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<sup>11</sup>See Section 3.2 for details about these variables.

### 3.1.3 Cross-Section

Additionally, we consider pure cross-sectional results in order to capture long-term effects on current account positions. In the cross-section, we use full-sample averages of each country over the time period 1996 to 2006. Hence, we run

$$CAY_i = \alpha + \beta X_i + \gamma Y_i + \phi Z_i + e_i \quad (3)$$

where we employ heteroskedasticity-robust standard errors. This cross-sectional approach allows for comparing structural influences on net capital flows by smoothing short-term fluctuations. Furthermore, by capturing countries which are at different stages of economic development, we are able to make inferences about changes in the response to, for example, the financial development variables over time.

## 3.2 Theoretical Issues

Our method follows the approaches of Chinn and Prasad (2003) and Gruber and Kamin (2007). These papers establish standard medium-term determinants of current account balances: an important factor is a country's fiscal balance. Overlapping generations models as in Obstfeld and Rogoff (1996) suggest a redistribution of future income to current generations by means of fiscal deficits, thus leading to increased current account deficits. Non-Ricardian behaviour implies that economic agents do not off-set government budget surpluses by less private savings (particularly in liquidity-constrained developing countries, as shown by Bussiere, Fratzscher, and Mueller, 2004).

Chinn and Prasad (2003) also find that a country's net foreign asset (NFA) position affects its net investment position and hence the current account. Thus, the lagged value of the NFA position is used in regression analysis in order to avoid correlation with the present current account balance. In order to account for a life-cycle theory of consumption and savings, we use the age-dependency ratio, implying that relatively young and old countries are more likely to run current account deficits. Following Chinn and Prasad (2003), we include real GDP per capita in the estimations in order to capture the dynamics of relatively poorer countries needing more foreign capital, whereas richer countries are able to export capital.<sup>12</sup> The degree of trade openness (defined as the sum of exports and imports over GDP) might be seen as a signal of being better equipped to generate export revenue in order to pay off external debt (Chinn and Prasad, 2003). The (lagged) GDP growth rate is included because it might trigger increased capital inflows from foreign investors who want to reap benefits (higher returns) from economic growth periods.

Various papers have extended these standard estimations by including measures of financial development in order to contribute to the current account imbalances literature. Considering evidence of the medium-term impact of domestic financial development on international capital flows, the focus of research has been foremost on the financial deep-

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<sup>12</sup>Specifically, countries that are below their steady state output are expected to be net importers of capital.

ening dimension. Chinn and Ito (2005) point out that the effect of financial deepening on current accounts is ambiguous: theoretically, it can induce higher savings through more developed financial markets, but on the other hand there could be less savings due to a decrease in the precautionary savings rate. Furthermore it could lead to increased financial inflows by attracting more foreign savings and thus stimulating domestic investments.

There is no conclusive empirical evidence to date on the impact of financial deepening indicators on current account balances.<sup>13</sup> Commonly used indicators of financial depth are stock market capitalisation as well as private credit measures (Gruber and Kamin, 2007; Chinn and Ito, 2005). In line with Lane and Milesi-Ferretti (2008), we include bank deposits (as a ratio to GDP) in order to capture the size of a country's banking system.

The role of domestic financial reforms is also not clear *a priori*. A more developed financial system might improve access to foreign funds (thus lowering the current account) and enhance allocative efficiency (Abiad, Oomes and Ueda, 2004), thereby leading to better investment opportunities. Alternatively, there could be a decreased need for foreign funds as better intermediation opportunities arise from a reformed financial system (IMF, 2008). The IMF's World Economic Outlook (October 2008) finds a significant negative impact of financial reforms (however, without disentangling the effect of entry barriers to foreign investors) on current account balances for a sample of countries from Emerging Europe, whereas no significant role for financial depth is found.

We also run estimations including measures of financial openness, both *de-facto* (Lane and Milesi-Ferretti, 2007a) and *de-jure* (Chinn and Ito, 2008). We expect more financial openness to be associated with larger current account deficits to reflect better borrowing opportunities abroad.

In line with Hermann and Winkler (2008), we measure the degree of financial integration with the Euro Area countries (proxied by the consolidated foreign bank claims of Euro Area reporting banks on the respective countries in Emerging Europe) and include the share of foreign-owned banks and foreign-owned banking assets from Claessens et al. (2008). Again, one expects more financial integration to be negatively correlated with the current account balance. Moreover, we include a banking and currency crisis indicator (Laeven and Valencia, 2008) as the risk of financial crises is expected to lead to lower levels of financial inflows.<sup>14</sup>

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<sup>13</sup>Chinn and Prasad (2003) find an increase in current account balances due to financial deepening (as measured by M2), Chinn and Ito (2005) report larger current account deficits due to financial deepening (measured as private credit) interacted with legal system indicators, while Gruber and Kamin (2008) find no evidence of a financial deepening effect (as measured by bank assets and stock market variables) on current account balances. Employing annual data, Hermann and Winkler (2008) report evidence of larger current account deficits due to financial deepening (as measured by M2 and private credit) as well as measures of financial integration and openness for Emerging Asia and Emerging Europe.

<sup>14</sup>To be more specific, we use a dummy variable which has a value of one when the country experiences a systemic financial crisis and zero otherwise.

## 4 Results

### 4.1 Medium-term

#### 4.1.1 Current Account

The medium term analysis reveals that among the standard determinants of current accounts, the fiscal balance stands out (Table 1): in all estimations it significantly increases current account surpluses. Thus, as usually observed in the literature, we see non-Ricardian behaviour of the transition countries. Furthermore, we find significant evidence that the level of international trade raises current account deficits (columns 1 to 3), hence contributing to higher net capital inflows. Among the other standard determinants, only modest evidence is found: initial net foreign asset positions do not influence current accounts, whereas richer countries exhibit higher current account positions (columns 3 and 5).

Turning to the aggregate unweighted financial reforms index, we find a significant decline of current account balances (at the 10% level) implying a beneficial role of more liberalised financial systems in attracting net financial inflows. In column (2), we disentangle the effects of banking and security market reforms. Strikingly, these reforms have opposing effects on current account balances. Banking sector reforms significantly increase net financial inflows (as indicated by the negative sign), whereas security market reforms point in the opposite direction (significant at the 1% level and 5% level, respectively).

As a next step, we examine what effect financial deepening, thus a volume-increase in the financial system, has on current account balances. For the banking sector, we use the ratio of banking deposits to GDP, but find no significant evidence (column 3); for security markets, we use stock market capitalisation (as a ratio to GDP), and again find no significant effect on current account balances.<sup>15</sup> The inclusion of stock market capitalisation renders the security reform coefficient insignificant.

Finally, we use the complete set of financial variables in column (5): the previously obtained results persist, reinforcing the important role of banking sector reforms in running larger current account deficits.

In all estimations, we employ an EU membership dummy for the respective countries and time periods after EU accession. In columns (4) and (5), we find a beneficial effect on the EU dummy indicating that those transition countries which joined the European Union received additional net inflows. This finding is in line with Lane (2008) who suggests that the “multi-dimensional institutional anchor” associated with EU membership has facilitated access to international capital flows.

Table 2 shows results for further potential determinants of current account balances. The variables used in this part of the analysis primarily reflect international financial integration and were partially also employed in recent studies by Hermann and Winkler (2008) and the IMF (2008).<sup>16</sup> In column (1), we use a measure of *de-facto* international

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<sup>15</sup>It is crucial to include a measure of country size (in our case the log of population) in the estimations including stock market capitalisation, as small countries are less likely to have sizeable stock markets.

<sup>16</sup>Due to data availability for the financial integration indicators, the number of observations varies by

financial integration (as defined by Lane and Milesi-Ferretti, 2007a), but find no significant effect on the current account balance. The same holds true for the Chinn-Ito index of *de jure* financial openness in column (2). In the next three columns, we include measures of (regional) financial integration, namely the share of foreign banks, the share of foreign owned bank assets, and the ratio of Euro Area owned banking claims to GDP, respectively. Among these variables, we find the share of foreign bank ownership to lower current account balances significantly (at the 10% level). In all of these regressions, the main results of Table 1 persist; in particular, the banking reform index proves to be robust to the inclusion of any other financial integration measures.<sup>17</sup>

#### 4.1.2 Net Inflows

In Table 3, we examine net inflows of different investment categories with respect to the set of standard determinants and financial development indicators as defined above. Considering the number of observations, we observe that data availability is slightly less complete for financial flows than for current account balances. In column (1), we report our findings of Table 1 again, whereas we present in column (2) the same current estimation but only for those countries that also have data available on overall net inflows.<sup>18</sup> The results in both columns are very consistent in terms of significance levels and signs (with the exception of stock market capitalisation leading to significantly larger current account surpluses in column 2). In the next column, we use net financial inflows as the dependent variable. In theory, results in columns (2) and (3) should be equivalent (having the opposite signs). However, as described in section 2.2, there are definitional differences between current account balances and financial flows.

Comparing columns (2) and (3), we still obtain consistent results. Thus, a higher level of implemented banking reforms and EU membership imply a higher level of net financial inflows, whereas higher GDP per capita is associated with less net inflows. Moreover, for net financial inflows, the coefficients on the lagged net foreign asset position and on international trade are significant (with a positive sign), whereas the coefficient on banking deposits has a negative sign (significant at the 1% level).

In columns (4) to (7), we deal with differences across investment categories: strikingly, we do not find evidence of a significant role of either the standard nor the financial variables for portfolio equity. For FDI, there is some evidence that richer countries and countries with a higher stock market capitalisation receive lower FDI net inflows, whereas countries with a more liberalised and larger banking sector and more openness to trade receive significantly higher net inflows. This could reflect the participation of foreign banks in the Eastern European banking system through direct investments. An alternative explanation

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specification.

<sup>17</sup>We run additional robustness tests including systemic financial crisis dummies (Laeven and Valencia, 2008) which are not found to be significant. We also test a more refined demographic specification following Fair and Dominguez (1991) and Higgins (1998) which leaves our findings unchanged. Moreover, we drop Russia (as a potential outlier) from all estimations, use country fixed effects, and private credit as a ratio to GDP (instead of banking deposits), but find the results to be unaffected in each case.

<sup>18</sup>In terms of data availability, the difference arises from the fact that Uzbekistan does not provide data on financial flows.

is that banking reforms might signal an improved general investment environment. We will revisit this point in the next subsection. Portfolio debt investments are significantly and negatively affected by the fiscal balance, which can be explained by less need of governments to sell bonds to foreign investors when the fiscal position is relatively high. In the other investment category, we find the opposite result for the fiscal balance. Crucially, the banking reform index has a positive impact on net inflows in this category. We can interpret this as a direct effect, since many of the other flows are in the form of banking loans.

Overall, we find evidence that banking reforms work best in attracting FDI and other investment net inflows, whereas we do not find security market reforms or stock market capitalisation to play an important role for any of the investment sub-categories.

### 4.1.3 Net Inflows and Additional Transition Indicators

As can be seen in Figure 1, FDI plays a crucial role for the sample of transition countries: overall net FDI inflows to the sample of countries are persistently above 2% of overall GDP. Net positions for portfolio equity and portfolio debt fluctuate around zero, whereas the other investment category is rather volatile, with relatively high net inflows in recent years.

The analysis in the previous subsection showed the importance of banking sector reforms for net FDI inflows. Campos and Kinoshita (2008) confirm for Eastern European and Latin American emerging countries that financial sector reforms have a strong positive effect on gross FDI inflows. They suggest that financial development is seen as a precondition for maximising the benefits of a foreign investment. Next to the direct benefits of raising capital in the host countries, foreign investors might benefit indirectly from more developed financial markets, as local suppliers can avail of better investment opportunities. Thus, banking reforms can be a signal for a functioning supply chain and an overall sophisticated economic environment. In the same vein, Alfaro et al. (2004) suggest that financial development helps countries to exploit FDI more efficiently.

We consider different components of FDI in order to gain additional insights. Using Balance of Payments data by the IMF allows for the classification of FDI into equity capital, reinvested earnings and other direct investment capital. Figure 2 shows FDI equity (which is the combined value for equity capital and reinvested earnings) and the residual classified as “other”. Overall, one can see the dominant role of FDI equity (with two lows in 2003 and 2006), and a marked increase in the other category, that is, in other direct investment capital transactions such as intercompany debt.

Another source of FDI data is the UNCTAD database. It not only publishes overall FDI flows data, but also data on cross-border mergers and acquisitions (M&As). This allows to distinguish between M&As and other (or greenfield) investments. M&As refer to a change in ownership from domestic to foreign investors, while greenfield investments include all financial transfers from a multinational’s headquarters to its foreign subsidiary, which may be in the form of equity and loan financing. In Figure 3 we see a significant increase in mergers and acquisitions net inflows from 1998 to 2000 before they fall to around zero in 2003. After this, there is also an increase in the other category, hinting at

more greenfield investments.<sup>19</sup>

In Table 4, we show the same regression specification as for net inflows in the previous subsection, but now separate the aforementioned components of net FDI inflows. Strikingly, the results suggest that the impact of a more liberalised banking sector is homogeneous across the different components. As these estimations are still guided by our extended current account determinants, we use a different approach for Table 5. In line with recent studies on gross FDI inflows (among others, Campos and Kinoshita, 2008), we include structural determinants of FDI flows in order to observe their effects on net FDI inflows and the coefficients of the financial variables.

In contrast to the previous estimation, we drop the lagged net foreign asset position and the age-dependency ratio from the model and incorporate three structural indicators from the EBRD (2008) instead. We use a measure of privatisation, an overall infrastructure indicator, and a corporate governance and enterprise restructuring indicator.<sup>20</sup> A high degree of private ownership and sufficient infrastructure are potentially important factors in attracting foreign investors. The effect of improved corporate governance is not that clear *a priori*; due to the hold-up problem, firms might choose FDI instead of outsourcing if the institutional quality in the host country is low (Antras, 2003), whereas improved institutional quality can of course also increase FDI inflows.

The results in Table 5 show a more diverse picture: overall net FDI inflows (column 1) are still higher for countries with lower GDP per capita and more openness to international trade. We observe a positive effect of banking sector reforms and larger banking sectors, whereas the opposite effect is found for stock market capitalisation. Among the newly included structural determinants of FDI, we see that the effect of corporate governance reforms is significantly negative (at the 5% level), hinting at the existence of the hold-up problem. In column (2), where we only include the countries for which a disentangling between equity and other FDI is possible, the results are equivalent. Comparing columns (3) and (4), it stands out that banking sector reforms have a significant positive impact on both categories.

In column (5), considering overall FDI data from the UNCTAD database and including 52 observations, we see a highly positive effect of banking sector reforms and deeper banking sectors on net FDI inflows. Also, the effect of privatisation is positive and significant (at the 1% level). Comparing columns (6) and (7), it is striking that the banking sector reform coefficient is only significant for the other (thus greenfield) component of FDI. Thus, banking sector reforms might be more beneficial in the long-run as they not only lead to changes of ownership from domestic to foreign investors, but also encourage greenfield investments, leading to the development and expansion of new enterprises in the host countries.

Given the well-known presence of foreign banks in the region, it would be interesting to further distinguish between banking FDI and non-banking FDI flows. However, these data are not available for our sample of countries. Campos and Kinoshita (2008), using a different methodology and an approximative approach in order to distinguish between

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<sup>19</sup>Due to data availability, this graph runs only until 2005.

<sup>20</sup>See Section 2.2 for details.

gross financial and non-financial FDI inflows, report that financial liberalisation has a uniformly positive effect on gross FDI inflows in the transition economies of Eastern Europe.

Overall, our findings (once we control for FDI-specific structural indicators) show that banking sector reforms tend to work best in attracting greenfield net inflows, and to a lesser extent M&A transactions.

Although the inclusion of additional structural transition indicators stems from the FDI literature, it is possible that these factors also have an impact on net financial flows in the other investment categories. We examine this issue in Table 6. As for FDI, we observe for overall net inflows a significantly negative (at the 10% level) effect of corporate governance reforms. Apart from this, the only significant effect of the transition indicators is found for infrastructure reforms, with a positive sign on portfolio equity. Moreover, the main results of Table 3 persist. Additionally, the respective  $R^2$ s of the estimations used for Table 3 are higher than in Table 6 (except for FDI), suggesting that the specification is indeed more appropriate only for FDI.

#### 4.1.4 Gross Flows

Importantly, net inflows are merely the difference between capital inflows and outflows. Hence, we analyse these separately in Table 7.

We observe that the fiscal balance affects both inflows and outflows positively. The existing stock of foreign liabilities plays a negative role implying that countries which have already accumulated a high foreign liability position receive less inflows. A higher dependency ratio and international trade affect inflows and outflows positively.

Turning to the financial variables, we find that banking reforms significantly increase financial inflows, but not financial outflows, hence explaining the overall positive impact on net inflows. For security market reforms, we find that a higher level of reforms implies less inflows (significant at the 5% level). Stock market capitalisation has a positive impact on gross inflows and outflows, hinting at complementarity of investing domestically and abroad if the domestic stock market is more developed.

To conclude the medium-term analysis, we find that current account balances decrease with banking sector reforms (and consequently, net financial inflows increase). Moreover, we observe FDI and other investment inflows to be significantly affected by banking sector reforms. Gross financial inflows are positively affected by banking sector reforms, whereas there is no significant effect on outflows.

## 4.2 Annual Data

In our annual data estimation, we use the same set of regressors as in the medium-term analysis. However, it is important to note that next to the NFA position, we include GDP growth as well as the reform variables in lagged form. This is in particular relevant for the reform variables since the political economy perspective on financial reforms suggests that more financial inflows can trigger financial reforms. While this is less of a problem over

medium-term horizons, we include the lag of the reforms index in these annual estimations in order to avoid potential endogeneity issues.

Looking at the standard determinants of current accounts, the fiscal balance again significantly increases current account surpluses. In contrast to other findings in the literature (for example Chinn and Prasad, 2003), we find the lagged NFA position to decrease current account balances significantly. This indicates that countries which already have relatively high net liability positions are still able to run persistent current account deficits. This could be a result of the transition process of these countries as they need more external financing in their catching-up process. Also, GDP per capita has a negative sign, indicating that countries attract more financial inflows with increasing economic development.

The overall financial reforms index significantly lowers current account balances (at the 1% level). Thus our previous finding is also confirmed at the annual level: a higher level of financial reforms attracts more foreign capital. Distinguishing between banking sector and security market reforms, we find significant values only for banking reforms. We find some evidence that financial deepening in the banking sector contributes to lower current account balances, whereas no significant effect is found for stock market capitalisation. Furthermore, we observe a strong residual effect for the countries that joined the European Union in all estimations.

As in the medium-term estimations, we include a set of additional variables in Table 9. However, the only significant effect is found for the Euro Area banking claims variable (column (5)). This result - consistent with Hermann and Winkler, who estimate annual regressions - could indicate the beneficial role of financial integration of the transition countries with their core, which is represented by the Euro Area.

In all estimations, the significant negative coefficient on the lagged net foreign asset position stands out. Crucially, the banking reform index has a very significant (at the 1% level) impact on the current account balance in all estimations. Moreover, the residual effect for the European Union member countries persists, which is further evidence that the EU provides an institutional system which facilitates additional financial integration beyond what is captured by the variables used in our analysis.<sup>21</sup>

### 4.3 Cross-Section

In Table 10, we report the results of the cross-sectional analysis of the current account equations. We use the same determinants as in the previous sections. In order to gain two additional countries, we use the years 1996 to 2006 (thus we take averages over the same period for all countries and variables).

The results are again indicative of the prominent role of the fiscal balance; the coefficients almost suggest an equi-proportionate response of the current account balance to the fiscal balance. We do not find evidence of a significant role of the initial net foreign asset position (that is from the year 1995). The same holds true for the age-dependency ratio,

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<sup>21</sup>As in the medium-term analysis, we run additional robustness tests including systemic financial crisis dummies, a more refined demographic specification, and dropping Russia from the sample. These do not affect any of the main results.

which is only significant in column (5). However, we find evidence that more developed countries (in terms of output per capita) receive less net capital flows. Countries with faster average GDP growth and more openness to international trade, on the other hand, run larger current account deficits.

Additionally, we find a role for the financial variables in the cross-sectional dimension: while the overall reform index is insignificant in (1), we clearly observe larger current account deficits for countries with more reformed banking systems, whereas countries with more security market reforms tend to run larger current account balances (column 2). This is also suggested in (5) for countries with larger stock markets.

All things considered, we find strong evidence of an important role of banking reforms when analysing the data in a cross-section.

## 5 Conclusion

This paper contributes to the ongoing debate about global current account imbalances. We analysed the role of financial sector developments in generating net capital inflows for Emerging Europe. In a novel approach to the literature on international capital flows, we include measures of financial reforms, financial depth, and various indicators of financial integration - thus making it possible to distinguish between various dimensions of financial development. This is of high relevance for understanding why Emerging Europe was able to receive *downhill* capital flows, making a faster convergence to the industrial countries possible.

Our findings demonstrate the importance of financial reforms - banking sector reforms in particular - in attracting net capital inflows for our sample of European transition countries. In the medium-term analysis, there is no convincing evidence of an impact of financial deepening and integration indicators on net capital inflows. We observe very persistent additional capital flows to the new EU members, hinting at the unique institutional set-up inside the European Union.

Among the different investment categories, the importance of FDI and other investments stands out. For both of these investment classes, we observe beneficial effects of banking sector reforms. A further in-depth analysis of FDI shows that the banking reform effect is robust to the inclusion of FDI-specific variables and works better for greenfield investments than for mergers and acquisitions.

Distinguishing between gross financial inflows and outflows, we find banking sector reforms to have a positive effect on gross inflows. The main medium-term results are strongly confirmed in annual and cross-sectional estimations.

For future research in this area, it will be worth exploring the separate effects of financial sector reforms and financial deepening on net capital flows for other emerging and developing countries. In particular, Emerging Asia might be an interesting case for comparison as this region is running - in contrast to Emerging Europe - persistent current account surpluses. A related approach could be pursued by a further disaggregation of the data - for example, by employing industry level data - in order to find out more about the different channels of financial reforms.

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# Appendix

## A1 EBRD Financial Reform Scores

### Banking reform and interest rate liberalisation

- 1 Little progress beyond establishment of a two-tier system.
- 2 Significant liberalisation of interest rates and credit allocation; limited use of directed credit or interest rate ceilings.
- 3 Substantial progress in establishment of bank solvency and of a framework for prudential supervision and regulation; full interest rate liberalisation with little preferential access to cheap refinancing; significant lending to private enterprises and significant presence of private banks.
- 4 Significant movement of banking laws and regulations towards BIS standards; well-functioning banking competition and effective prudential supervision; significant term lending to private enterprises; substantial financial deepening.
- 4+ Standards and performance norms of advanced industrial economies: full convergence of banking laws and regulations with BIS standards; provision of full set of competitive banking services.

### Securities markets and non-bank financial institutions

- 1 Little progress.
- 2 Formation of securities exchanges, market-makers and brokers; some trading in government paper and/or securities; rudimentary legal and regulatory framework for the issuance and trading of securities.
- 3 Substantial issuance of securities by private enterprises; establishment of independent share registries, secure clearance and settlement procedures, and some protection of minority shareholders; emergence of non-bank financial institutions (for example, investment funds, private insurance and pension funds, leasing companies) and associated regulatory framework.
- 4 Securities laws and regulations approaching IOSCO standards; substantial market liquidity and capitalisation; well-functioning non-bank financial institutions and effective regulation.
- 4+ Standards and performance norms of advanced industrial economies: full convergence of securities laws and regulations with IOSCO standards; fully developed non-bank intermediation.

**Source:** European Bank for Reconstruction and Development (2008)

## A2 Country Sample

Country	Group	Data Availability
Bulgaria	CEE	12 years
Czech Republic	CEE	12 years
Estonia	CEE	12 years
Hungary	CEE	12 years
Latvia	CEE	12 years
Lithuania	CEE	12 years
Poland	CEE	12 years
Romania	CEE	12 years
Slovak Republic	CEE	12 years
Slovenia	CEE	12 years
Belarus	CIS	12 years
Kazakhstan	CIS	12 years
Kyrgyz Republic	CIS	12 years
Moldova	CIS	12 years
Russia	CIS	12 years
Ukraine	CIS	12 years
Uzbekistan	CIS	12 years
Albania	SEE	12 years
Macedonia	SEE	12 years
Azerbaijan	CIS	11 years
Georgia	CIS	11 years
Armenia	CIS	insufficient
Mongolia	CIS	insufficient
Tajikistan	CIS	insufficient
Turkmenistan	CIS	insufficient
Bosnia and Herzegovina	SEE	insufficient
Croatia	SEE	insufficient
Montenegro	SEE	insufficient
Serbia	SEE	insufficient

## A3 Other Data & Sources

Variables	Source
Current Account Balance	IMF-IFS
Financial Inflows and Outflows	IMF-IFS and IMF-BOPS
Fiscal Balance	EBRD
FDI Flows	UNCTAD
(Net) External Position	Lane and Milesi-Ferretti (2007)
Age-Dependency Ratio	WDI
GDP per Capita	WDI
Trade	WDI
GDP Growth	EBRD
Bank Reform Index	EBRD
Security Markets Reform Index	EBRD
Structural Transition Indicators	EBRD
Stock Market Capitalisation	Datastream, S&Ps
Bank Deposits	IFS
Capital Account Openness	Chinn and Ito (2008)
Foreign Banking	World Bank (Claessens et al. (2008))
Bank Claims	BIS
Financial Crises	Laeven and Valencia (2008)

# Figures

Figure 1: Net Financial Inflows (ratio to GDP)

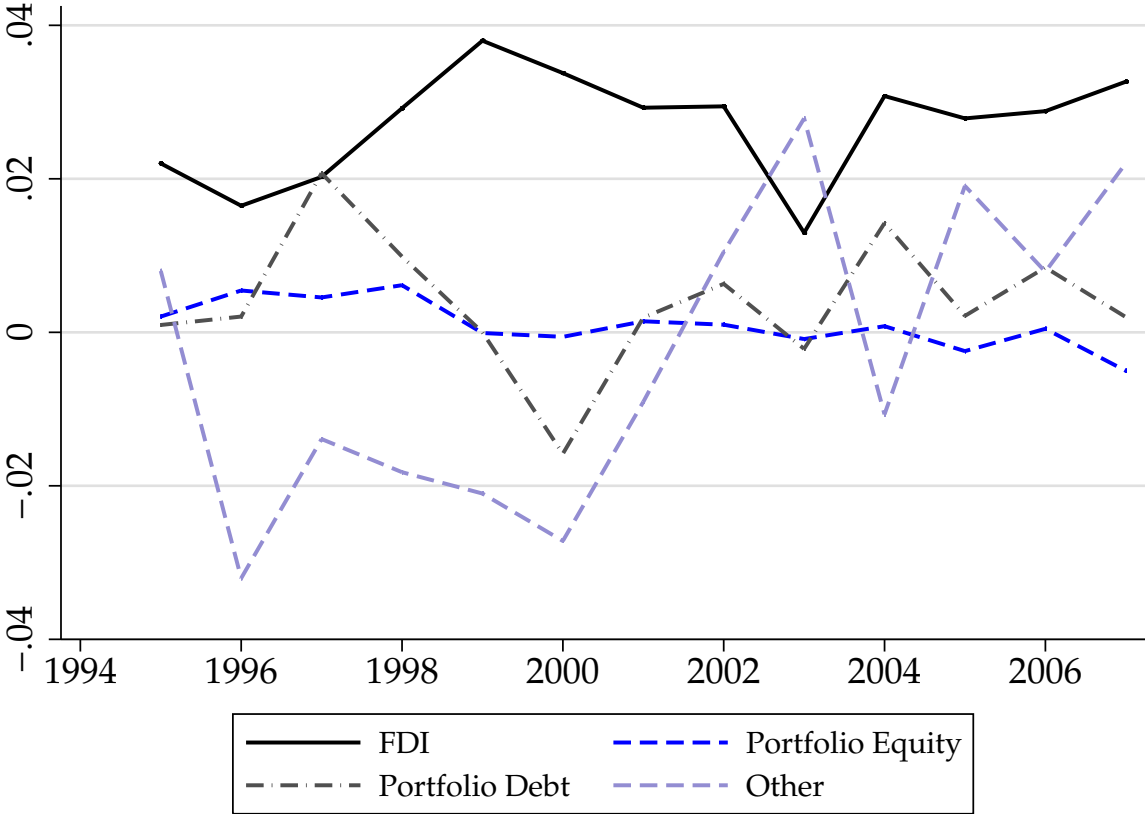


Figure 2: Net FDI Inflows (ratio to GDP)

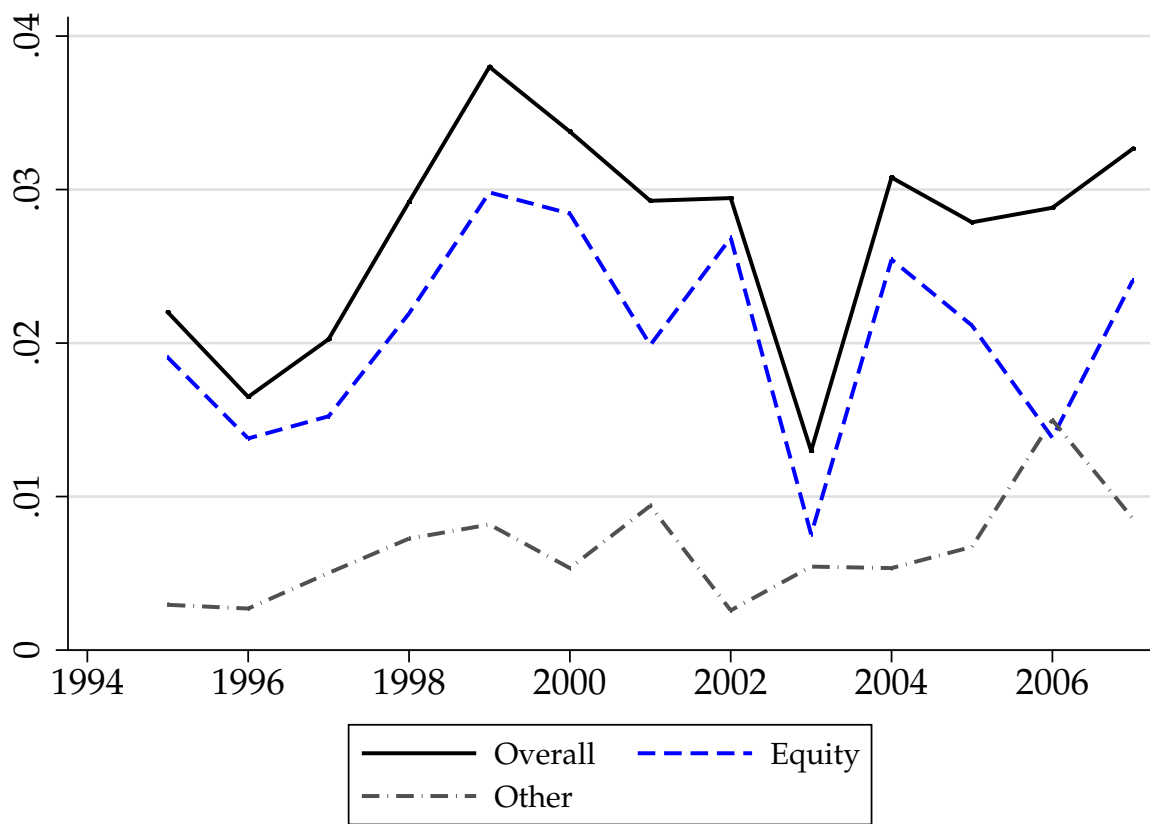
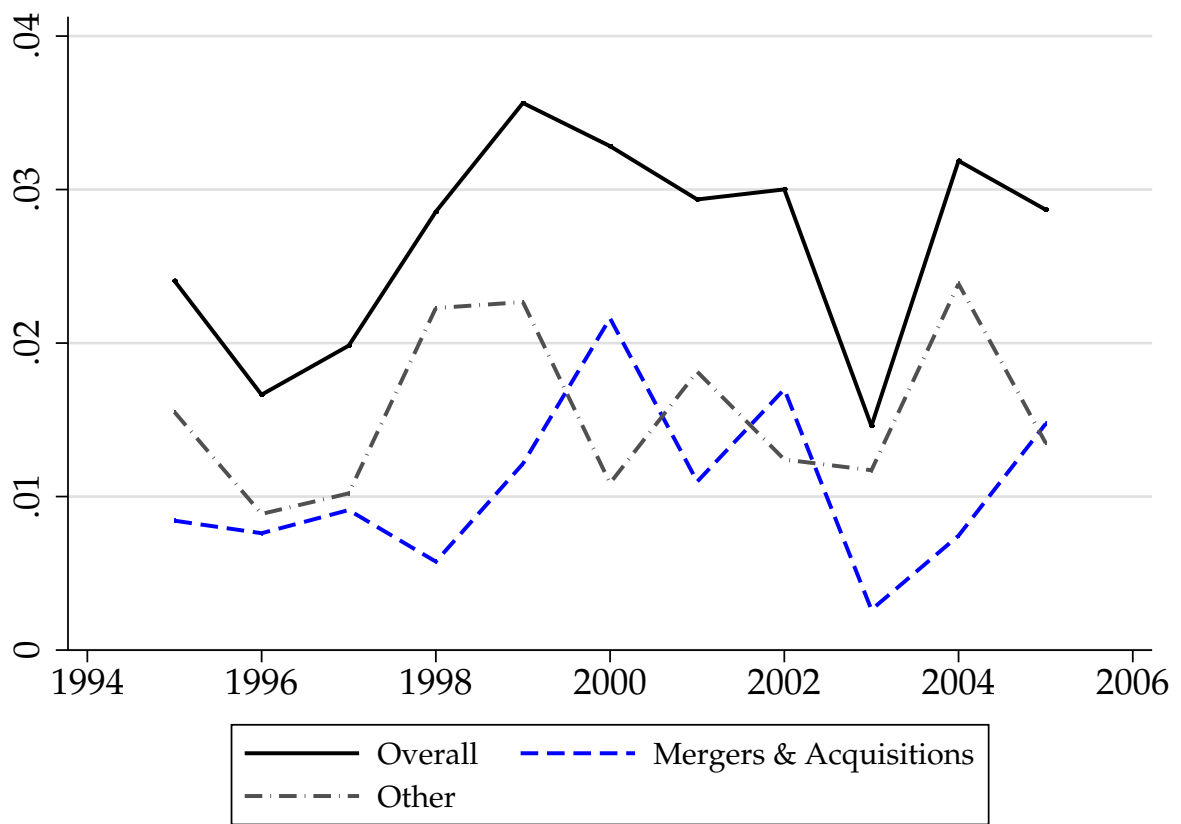


Figure 3: Net FDI Inflows (ratio to GDP)



# Tables

Table 1: Medium-term Current Account Determinants

	(1)	(2)	(3)	(4)	(5)
<b>Fiscal Balance</b>	0.499 [0.192]**	0.492 [0.171]***	0.557 [0.210]**	0.457 [0.166]***	0.593 [0.186]***
<b>L. NFA</b>	0.030 [0.032]	0.028 [0.028]	-0.001 [0.029]	0.032 [0.026]	0.000 [0.028]
<b>Dependency Ratio</b>	-0.042 [0.122]	-0.061 [0.109]	0.000 [0.111]	0.111 [0.119]	0.133 [0.114]
<b>Log GDP per Capita</b>	0.018 [0.021]	0.021 [0.019]	0.038 [0.017]**	0.018 [0.017]	0.032 [0.018]*
<b>Trade</b>	-0.065 [0.020]***	-0.056 [0.018]***	-0.061 [0.019]***	-0.012 [0.020]	-0.021 [0.020]
<b>GDP Growth</b>	-0.291 [0.207]	-0.268 [0.184]	-0.293 [0.192]	-0.120 [0.181]	-0.168 [0.172]
<b>Reform Index</b>	-0.116 [0.064]*				
<b>Bank Reform Index</b>		-0.219 [0.052]***	-0.207 [0.056]***		-0.159 [0.055]***
<b>Security Markets Reform Index</b>		0.120 [0.053]**		-0.074 [0.061]	-0.018 [0.061]
<b>Bank Deposits</b>			0.030 [0.051]		0.059 [0.046]
<b>Stock Market Cap</b>				0.073 [0.062]	0.080 [0.059]
<b>Size (log Population)</b>				0.024 [0.005]***	0.018 [0.006]***
<b>EU membership</b>	-0.040 [0.024]	-0.036 [0.022]	-0.034 [0.023]	-0.048 [0.021]**	-0.039 [0.020]*
<b>R-squared</b>	0.47	0.59	0.56	0.62	0.67
<b>Observations</b>	76	76	76	76	76

Notes: Heteroskedasticity-robust standard errors (in parentheses) and time fixed effects. Time period: 1995-2006.  
\* significant at 10% level; \*\* significant at 5% level, \*\*\* significant at 1% level.

Table 2: Additional Medium-term Current Account Determinants

	(1)	(2)	(3)	(4)	(5)
<b>Fiscal Balance</b>	0.569 [0.204]***	0.517 [0.200]**	0.436 [0.186]**	0.497 [0.185]***	0.598 [0.194]***
<b>L. NFA</b>	0.008 [0.028]	0.000 [0.035]	-0.020 [0.033]	-0.005 [0.031]	-0.001 [0.028]
<b>Dependency Ratio</b>	0.121 [0.094]	0.323 [0.141]**	0.150 [0.103]	0.143 [0.104]	0.139 [0.106]
<b>Log GDP per Capita</b>	0.031 [0.015]**	0.045 [0.020]**	0.027 [0.016]	0.025 [0.016]	0.033 [0.015]**
<b>Trade</b>	-0.023 [0.018]	0.001 [0.023]	-0.011 [0.018]	-0.004 [0.018]	-0.020 [0.019]
<b>GDP Growth</b>	-0.160 [0.161]	-0.208 [0.213]	-0.063 [0.164]	-0.100 [0.170]	-0.171 [0.166]
<b>Bank Reform Index</b>	-0.164 [0.055]***	-0.133 [0.067]*	-0.111 [0.049]**	-0.104 [0.052]*	-0.159 [0.056]***
<b>Security Markets Reform Index</b>	-0.011 [0.056]	-0.055 [0.083]	-0.033 [0.056]	-0.031 [0.062]	-0.017 [0.061]
<b>Bank Deposits</b>	0.053 [0.047]	0.048 [0.055]	0.099 [0.049]**	0.058 [0.043]	0.061 [0.045]
<b>Stock Market Cap</b>	0.067 [0.071]	0.138 [0.072]*	0.006 [0.073]	0.042 [0.068]	0.079 [0.068]
<b>Size (log Population)</b>	0.018 [0.006]***	0.020 [0.008]**	0.027 [0.006]***	0.025 [0.006]***	0.018 [0.006]***
<b>EU membership</b>	-0.040 [0.023]*	-0.036 [0.022]	-0.042 [0.023]*	-0.045 [0.023]*	-0.037 [0.025]
<b>IFI</b>	0.007 [0.016]				
<b>Chinn-Ito Index</b>		-0.007 [0.006]			
<b>Foreign Bank Share</b>			-0.069 [0.040]*		
<b>Foreign Bank Asset Share</b>				-0.021 [0.030]	
<b>EU Bank Claims</b>					-0.006 [0.034]
<b>Observations</b>	0.67	0.69	0.71	0.70	0.67
<b>R-squared</b>	76	60	72	72	76

Notes: Heteroskedasticity-robust standard errors (in parentheses) and time fixed effects. Time period: 1995-2006.  
\* significant at 10% level; \*\* significant at 5% level, \*\*\* significant at 1% level.

Table 3: Medium-term Net Financial Flows

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Current Account		Net Inflows				
			Overall	P. Equity	FDI	P. Debt	Other
<b>Fiscal Balance</b>	0.593	0.256	-0.137	-0.037	0.200	-0.313	0.367
	[0.188]***	[0.149]*	[0.178]	[0.058]	[0.121]	[0.112]***	[0.170]**
<b>L. NFA</b>	0.000	-0.037	0.053	0.013	0.005	0.002	0.020
	[0.027]	[0.026]	[0.026]*	[0.011]	[0.023]	[0.017]	[0.026]
<b>Dependency Ratio</b>	0.133	-0.113	0.179	0.003	0.070	-0.081	0.421
	[0.098]	[0.107]	[0.132]	[0.023]	[0.076]	[0.050]	[0.122]***
<b>Log GDP per Capita</b>	0.032	0.048	-0.038	-0.005	-0.024	0.005	0.010
	[0.015]**	[0.013]***	[0.014]***	[0.005]	[0.010]**	[0.008]	[0.013]
<b>Trade</b>	-0.021	-0.024	0.047	0.003	0.030	0.007	0.010
	[0.017]	[0.017]	[0.018]**	[0.004]	[0.010]***	[0.008]	[0.019]
<b>GDP Growth</b>	-0.168	-0.022	-0.071	-0.019	0.048	-0.026	0.129
	[0.160]	[0.140]	[0.160]	[0.032]	[0.109]	[0.072]	[0.118]
<b>Bank Reform Index</b>	-0.159	-0.156	0.191	0.014	0.162	-0.004	0.063
	[0.055]***	[0.045]***	[0.042]***	[0.012]	[0.031]***	[0.028]	[0.036]**
<b>Sec. Mark. Ref. Index</b>	-0.018	-0.071	0.066	0.015	-0.050	0.030	-0.016
	[0.059]	[0.052]	[0.052]	[0.012]	[0.036]	[0.024]	[0.047]
<b>Bank Deposits</b>	0.059	0.036	-0.108	-0.008	0.056	-0.026	-0.047
	[0.042]	[0.039]	[0.040]***	[0.011]	[0.029]*	[0.025]	[0.037]
<b>Stock Market Cap</b>	0.080	0.118	-0.026	0.012	-0.070	-0.020	0.039
	[0.067]	[0.045]**	[0.048]	[0.015]	[0.030]**	[0.028]	[0.042]
<b>Size (log Population)</b>	0.018	0.015	-0.008	-0.001	0.011	0.001	-0.009
	[0.006]***	[0.005]***	[0.005]*	[0.001]	[0.004]***	[0.003]	[0.004]*
<b>EU membership</b>	-0.039	-0.037	0.051	-0.011	0.003	-0.008	0.036
	[0.023]*	[0.017]**	[0.021]**	[0.005]**	[0.013]	[0.010]	[0.020]*
<b>R-squared</b>	0.67	0.74	0.67	0.32	0.51	0.31	0.58
<b>Observations</b>	76	72	72	66	72	66	72

Notes: Heteroskedasticity-robust standard errors (in parentheses) and time fixed effects. Time period: 1995-2006.

\* significant at 10% level; \*\* significant at 5% level, \*\*\* significant at 1% level.

Table 4: Medium-term Net FDI Flows

	(1)	(2)	(3)	(4)	(5)	(6)
	Overall	Equity	Other	Overall	M&A	Other
<b>Fiscal Balance</b>	0.283 [0.138]**	0.087 [0.118]	0.195 [0.109]*	0.247 [0.160]	0.127 [0.143]	0.120 [0.140]
<b>L. NFA</b>	-0.008 [0.025]	0.015 [0.024]	-0.015 [0.014]	-0.010 [0.033]	0.002 [0.020]	-0.012 [0.026]
<b>Dependency Ratio</b>	0.050 [0.084]	-0.032 [0.072]	0.082 [0.061]	0.476 [0.240]*	0.506 [0.317]	-0.030 [0.278]
<b>Log GDP per Capita</b>	-0.016 [0.011]	-0.021 [0.011]*	0.001 [0.006]	-0.061 [0.028]**	0.011 [0.028]	-0.072 [0.025]**
<b>Trade</b>	0.034 [0.011]**	0.026 [0.011]**	0.011 [0.006]*	-0.008 [0.015]	-0.005 [0.011]	-0.003 [0.013]
<b>GDP Growth</b>	-0.101 [0.134]	-0.162 [0.102]	0.032 [0.114]	0.090 [0.125]	-0.218 [0.162]	0.308 [0.153]*
<b>Bank Reform Index</b>	0.170 [0.034]**	0.108 [0.026]**	0.063 [0.016]**	0.218 [0.068]**	0.091 [0.048]*	0.127 [0.047]**
<b>Sec. Mark. Ref. Index</b>	-0.078 [0.040]*	-0.020 [0.030]	-0.044 [0.026]	-0.102 [0.057]*	-0.092 [0.053]*	-0.010 [0.052]
<b>Bank Deposits</b>	0.039 [0.030]	0.043 [0.026]	-0.007 [0.015]	0.215 [0.046]**	0.096 [0.042]**	0.120 [0.038]**
<b>Stock Market Cap</b>	-0.078 [0.032]**	-0.069 [0.028]**	-0.014 [0.022]	-0.043 [0.043]	-0.050 [0.047]	0.008 [0.043]
<b>Size (log Population)</b>	0.013 [0.004]**	0.005 [0.003]*	0.007 [0.003]**	0.010 [0.006]	0.009 [0.005]*	0.001 [0.005]
<b>EU membership</b>	0.001 [0.014]	0.003 [0.013]	-0.002 [0.009]	-0.001 [0.017]	-0.003 [0.016]	0.002 [0.017]
<b>R-squared</b>	0.53	0.52	0.32	0.68	0.40	0.58
<b>Observations</b>	64	64	64	52	52	52

*Notes:* Heteroskedasticity-robust standard errors (in parentheses) and time fixed effects. Time period: 1995-2006. FDI data retrieved from the IMF's Balance of Payments Statistics (columns 1 to 3) and from UNCTAD (columns 4 to 6). \* significant at 10% level; \*\* significant at 5% level, \*\*\* significant at 1% level.

Table 5: Medium-term Net FDI Flows

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Overall	Overall	Equity	Other	Overall	M&A	Other
<b>Fiscal Balance</b>	0.138 [0.103]	0.199 [0.125]	0.109 [0.123]	0.102 [0.088]	0.268 [0.145]*	0.061 [0.133]	0.207 [0.114]*
<b>Log GDP per Capita</b>	-0.023 [0.007]***	-0.020 [0.007]***	-0.014 [0.006]**	-0.007 [0.005]	-0.122 [0.019]***	-0.037 [0.025]	-0.085 [0.022]***
<b>Trade</b>	0.029 [0.009]***	0.032 [0.011]***	0.027 [0.010]**	0.008 [0.006]	-0.027 [0.016]*	-0.015 [0.014]	-0.013 [0.016]
<b>GDP Growth</b>	0.044 [0.093]	-0.050 [0.136]	-0.163 [0.111]	0.078 [0.100]	-0.177 [0.182]	-0.287 [0.164]*	0.111 [0.189]
<b>Bank Reform Index</b>	0.133 [0.046]***	0.160 [0.059]***	0.081 [0.039]**	0.079 [0.043]*	0.189 [0.058]***	0.036 [0.053]	0.153 [0.046]***
<b>Sec. Mark. Ref. Index</b>	-0.010 [0.044]	-0.031 [0.050]	-0.041 [0.040]	0.013 [0.029]	-0.010 [0.055]	-0.030 [0.050]	0.020 [0.050]
<b>Bank Deposits</b>	0.073 [0.029]**	0.059 [0.032]*	0.051 [0.029]*	0.004 [0.018]	0.205 [0.039]***	0.082 [0.037]**	0.123 [0.032]***
<b>Stock Market Cap</b>	-0.101 [0.031]***	-0.095 [0.032]***	-0.071 [0.032]**	-0.027 [0.022]	-0.051 [0.046]	-0.056 [0.050]	0.005 [0.047]
<b>Size (log Population)</b>	0.008 [0.003]**	0.009 [0.004]**	0.006 [0.003]*	0.004 [0.002]*	-0.003 [0.003]	-0.003 [0.005]	0.000 [0.005]
<b>Infrastructure</b>	0.018 [0.011]	0.013 [0.014]	0.007 [0.010]	0.005 [0.008]	0.002 [0.013]	0.009 [0.010]	-0.007 [0.011]
<b>Privatisation</b>	0.074 [0.049]	0.059 [0.054]	0.001 [0.037]	0.052 [0.040]	0.306 [0.083]***	0.149 [0.084]*	0.158 [0.072]**
<b>Corporate Governance</b>	-0.037 [0.017]**	-0.032 [0.018]*	-0.001 [0.015]	-0.029 [0.015]*	-0.024 [0.018]	-0.009 [0.015]	-0.015 [0.017]
<b>EU membership</b>	0.007 [0.013]	0.006 [0.013]	0.000 [0.013]	0.004 [0.010]	0.003 [0.018]	-0.007 [0.016]	0.009 [0.018]
<b>R-squared</b>	0.57	0.56	0.52	0.36	0.76	0.40	0.62
<b>Observations</b>	72	64	64	64	52	52	52

*Notes:* Heteroskedasticity-robust standard errors (in parentheses) and time fixed effects. Time period: 1995-2006. FDI data retrieved from the IMF's Balance of Payments Statistics (columns 1 to 4) and from UNCTAD (columns 5 to 7). \* significant at 10% level; \*\* significant at 5% level, \*\*\* significant at 1% level.

Table 6: Medium-term Net Financial Flows

	(1)	(2)	(3)	(4)	(5)
	Overall	P. Equity	FDI	P. Debt	Other
<b>Fiscal Balance</b>	-0.244 [0.189]	-0.035 [0.054]	0.138 [0.103]	-0.234 [0.095]**	0.100 [0.209]
<b>Log GDP per Capita</b>	-0.024 [0.011]**	0.000 [0.002]	-0.023 [0.007]***	0.011 [0.005]**	0.001 [0.011]
<b>Trade</b>	0.034 [0.016]**	0.002 [0.004]	0.029 [0.009]***	0.011 [0.008]	-0.013 [0.017]
<b>GDP Growth</b>	-0.012 [0.172]	-0.016 [0.033]	0.044 [0.093]	-0.080 [0.061]	0.305 [0.146]**
<b>Bank Reform Index</b>	0.192 [0.060]***	-0.005 [0.016]	0.133 [0.046]***	-0.012 [0.039]	0.074 [0.066]
<b>Sec. Mark. Ref. Index</b>	0.076 [0.059]	0.001 [0.017]	-0.010 [0.044]	0.026 [0.037]	0.012 [0.062]
<b>Bank Deposits</b>	-0.082 [0.041]*	-0.004 [0.010]	0.073 [0.029]**	-0.024 [0.025]	-0.071 [0.039]*
<b>Stock Market Cap</b>	-0.044 [0.049]	0.008 [0.018]	-0.101 [0.031]***	-0.013 [0.030]	-0.003 [0.052]
<b>Size (log Population)</b>	-0.011 [0.005]**	-0.001 [0.002]	0.008 [0.003]**	0.002 [0.003]	-0.013 [0.005]***
<b>Infrastructure</b>	0.004 [0.016]	0.005 [0.002]*	0.018 [0.011]	-0.004 [0.008]	-0.012 [0.018]
<b>Privatisation</b>	0.050 [0.078]	0.010 [0.016]	0.074 [0.049]	0.020 [0.040]	0.028 [0.074]
<b>Corporate Governance</b>	-0.037 [0.020]*	-0.003 [0.006]	-0.037 [0.017]**	0.001 [0.014]	-0.004 [0.023]
<b>EU membership</b>	0.054 [0.019]***	-0.013 [0.005]**	0.007 [0.013]	-0.008 [0.010]	0.038 [0.019]*
<b>R-squared</b>	0.65	0.30	0.57	0.30	0.48
<b>Observations</b>	72	66	72	66	72

Notes: Heteroskedasticity-robust standard errors (in parentheses) and time fixed effects. Time period: 1995-2006.  
\* significant at 10% level; \*\* significant at 5% level, \*\*\* significant at 1% level.

Table 7: Medium-term Financial Inflows and Outflows

	(1)	(2)
	Inflows	Outflows
<b>Fiscal Balance</b>	0.652 [0.272]**	0.466 [0.239]*
<b>L. Foreign Liabilities</b>	-0.045 [0.022]**	
<b>L. Foreign Assets</b>		-0.029 [0.034]
<b>Dependency Ratio</b>	0.819 [0.163]**	0.498 [0.147]**
<b>Log GDP per Capita</b>	-0.005 [0.015]	0.020 [0.014]
<b>Trade</b>	0.054 [0.022]**	0.036 [0.018]*
<b>GDP Growth</b>	0.194 [0.200]	-0.012 [0.132]
<b>Bank Reform Index</b>	0.312 [0.053]**	0.064 [0.048]
<b>Security Markets Reform Index</b>	-0.128 [0.058]**	-0.073 [0.069]
<b>Bank Deposits</b>	0.038 [0.053]	-0.002 [0.038]
<b>Stock Market Cap</b>	0.133 [0.072]*	0.217 [0.079]**
<b>Size (log Population)</b>	0.004 [0.006]	0.005 [0.006]
<b>EU membership</b>	0.020 [0.030]	0.008 [0.024]
<b>R-squared</b>	64	65
<b>Observations</b>	0.76	0.52

*Notes:* Heteroskedasticity-robust standard errors (in parentheses) and time fixed effects. Time period: 1995-2006.  
\* significant at 10% level; \*\* significant at 5% level, \*\*\* significant at 1% level.

Table 8: Annual Current Account Estimations

	(1)	(2)	(3)	(4)	(5)
<b>Fiscal Balance</b>	0.239 [0.104]**	0.234 [0.102]**	0.216 [0.101]**	0.226 [0.110]**	0.205 [0.102]**
<b>L. NFA</b>	-0.074 [0.025]***	-0.069 [0.025]***	-0.065 [0.024]***	-0.068 [0.026]***	-0.066 [0.024]***
<b>Dependency Ratio</b>	-0.174 [0.227]	-0.215 [0.223]	-0.187 [0.211]	-0.139 [0.238]	-0.092 [0.218]
<b>Log GDP per Capita</b>	-0.120 [0.036]***	-0.122 [0.036]***	-0.107 [0.037]***	-0.110 [0.038]***	-0.090 [0.038]**
<b>Trade</b>	-0.027 [0.025]	-0.027 [0.025]	-0.025 [0.024]	-0.030 [0.026]	-0.026 [0.025]
<b>L. GDP Growth</b>	0.003 [0.057]	0.009 [0.057]	0.020 [0.056]	0.021 [0.059]	0.033 [0.058]
<b>L. Reform Index</b>	-0.160 [0.046]***				
<b>L. Bank Reform Index</b>		-0.129 [0.037]***	-0.134 [0.036]***		-0.120 [0.037]***
<b>L. Security Markets Reform Index</b>		-0.035 [0.035]		-0.050 [0.036]	-0.041 [0.035]
<b>Bank Deposits</b>			-0.092 [0.051]*		-0.092 [0.050]*
<b>Stock Market Cap</b>				0.024 [0.041]	0.025 [0.040]
<b>Size (log Population)</b>				0.246 [0.176]	0.146 [0.163]
<b>EU membership</b>	-0.049 [0.014]***	-0.048 [0.014]***	-0.051 [0.014]***	-0.048 [0.014]***	-0.050 [0.014]***
<b>R-squared</b>	0.68	0.69	0.70	0.66	0.71
<b>Number of countries</b>	19	19	19	19	19
<b>Observations</b>	228	228	228	228	228

*Notes:* Panel estimation with AR(1) correlated disturbances, panel-corrected heteroskedasticity-robust standard errors (in parentheses), and involving country and time fixed effects. R-squared refers to the within-group measure. Time period: 1995-2006. \* significant at 10% level; \*\* significant at 5% level, \*\*\* significant at 1% level.

Table 9: Additional Annual Current Account Estimations

	(1)	(2)	(3)	(4)	(5)
<b>Fiscal Balance</b>	0.205 [0.101]**	0.141 [0.114]	0.214 [0.106]**	0.275 [0.105]***	0.174 [0.104]*
<b>L. NFA</b>	-0.053 [0.026]**	-0.111 [0.028]***	-0.065 [0.024]***	-0.056 [0.024]**	-0.094 [0.027]***
<b>Dependency Ratio</b>	-0.017 [0.221]	-0.600 [0.273]**	-0.132 [0.234]	-0.233 [0.240]	0.004 [0.219]
<b>Log GDP per Capita</b>	-0.093 [0.038]**	-0.079 [0.057]	-0.090 [0.038]**	-0.086 [0.040]**	-0.054 [0.040]
<b>Trade</b>	-0.022 [0.024]	0.016 [0.030]	-0.036 [0.026]	-0.031 [0.026]	-0.023 [0.024]
<b>L. GDP Growth</b>	0.029 [0.058]	-0.107 [0.068]	0.035 [0.060]	0.016 [0.058]	0.007 [0.058]
<b>L. Bank Reform Index</b>	-0.116 [0.037]***	-0.208 [0.047]***	-0.115 [0.038]***	-0.123 [0.037]***	-0.108 [0.037]***
<b>L. Security Markets Reform Index</b>	-0.043 [0.034]	-0.081 [0.050]	-0.023 [0.038]	-0.020 [0.039]	-0.025 [0.035]
<b>Bank Deposits</b>	-0.090 [0.053]*	-0.108 [0.065]*	-0.113 [0.054]**	-0.053 [0.055]	-0.058 [0.053]
<b>Stock Market Cap</b>	0.026 [0.039]	0.050 [0.042]	0.008 [0.044]	-0.055 [0.054]	-0.003 [0.042]
<b>Size (log Population)</b>	0.071 [0.165]	-0.052 [0.213]	0.102 [0.171]	-0.031 [0.180]	0.144 [0.161]
<b>EU membership</b>	-0.050 [0.014]***	-0.048 [0.013]***	-0.049 [0.014]***	-0.047 [0.014]***	-0.035 [0.014]**
<b>IFI</b>	0.013 [0.013]				
<b>Chinn-Ito Index</b>		-0.006 [0.004]			
<b>Foreign Bank Share</b>			-0.013 [0.031]		
<b>Foreign Bank Asset Share</b>				-0.016 [0.014]	
<b>EU Bank Claims</b>					-0.068 [0.023]***
<b>R-squared</b>	0.69	0.80	0.72	0.72	0.72
<b>Number of countries</b>	19	19	18	18	19
<b>Observations</b>	226	177	216	198	228

*Notes:* Panel estimation with AR(1) correlated disturbances, panel-corrected heteroskedasticity-robust standard errors (in parentheses), and involving country and time fixed effects. R-squared refers to the within-group measure. Time period: 1995-2006. \* significant at 10% level; \*\* significant at 5% level, \*\*\* significant at 1% level.

Table 10: Cross-Sectional Current Account Estimation

	(1)	(2)	(3)	(4)	(5)
<b>Fiscal Balance</b>	0.917 [0.387]**	0.843 [0.284]**	1.183 [0.705]	0.785 [0.337]**	1.330 [0.464]**
<b>L. NFA</b>	0.005 [0.069]	-0.012 [0.049]	-0.053 [0.075]	0.029 [0.039]	-0.046 [0.046]
<b>Dependency Ratio</b>	0.196 [0.221]	0.140 [0.165]	0.284 [0.214]	0.389 [0.213]*	0.423 [0.148]**
<b>Log GDP per Capita</b>	0.047 [0.026]*	0.045 [0.019]**	0.061 [0.025]**	0.036 [0.014]**	0.040 [0.014]**
<b>Trade</b>	-0.065 [0.035]*	-0.058 [0.031]*	-0.059 [0.026]**	-0.002 [0.034]	-0.029 [0.028]
<b>GDP Growth</b>	-1.234 [0.416]**	-1.145 [0.231]**	-1.192 [0.328]**	-0.943 [0.364]**	-0.907 [0.263]**
<b>Reform Index</b>	-0.154 [0.105]				
<b>Bank Reform Index</b>		-0.288 [0.107]**	-0.267 [0.084]**		-0.256 [0.057]**
<b>Security Markets Reform Index</b>		0.152 [0.070]*		-0.121 [0.058]*	0.033 [0.067]
<b>Bank Deposits</b>			0.094 [0.122]		0.151 [0.086]
<b>Stock Market Cap</b>				0.198 [0.144]	0.209 [0.078]**
<b>Size (log Population)</b>				0.023 [0.008]**	0.010 [0.008]
<b>R-squared</b>	0.61	0.80	0.76	0.79	0.91
<b>Observations</b>	21	21	21	21	21

Notes: Cross-sectional estimation with heteroskedasticity-robust standard errors (in parentheses) using country averages over 1996-2006. \* significant at 10% level; \*\* significant at 5% level, \*\*\* significant at 1% level.