Net Foreign Assets and External Market Structure: Evidence from the Middle East

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Abstract

Recent years have witnessed substantial changes in the composition of capital flows to developing countries, with FDI and equity flows playing an increasing role. Using a new cross-country dataset on external assets and liabilities, this paper discusses the implications of these trends for the level and composition of countries' external positions, with particular emphasis on the experience of Middle-Eastern countries. The study emphasizes three main findings: First, MENA countries present a very heterogeneous picture, with Gulf countries typically holding net external assets while the others display large external liabilities. Second, stocks of equity liabilities, in the form of direct investment and portfolio equity investment, are growing in importance with respect to debt liabilities, but are smaller in Middle-Eastern countries with respect to other developing countries. And finally, net external assets can be an important driving force of real exchange rates in the long run, as debtor countries have more depreciated exchange rates than creditor countries.

ملخص

شهدت السنوات الأخيرة تغيرات واضحة في طبيعة التدفقات الرأسمالية إلى الدول النامية، ومن أهم تلك التغيرات تزايد الأهمية النسبية لكل من تدفقات الاستثمار الأجنبي المباشر واستثمارات الحافظة. واعتمادا على قاعدة حديثة للبيانات الخاصة بالأصول والخصوم الخارجية لمجموعة من الدول، تقدم هذه الورقة تحليلا لانعكاسات التغيرات في طبيعة التدفقات الرأسمالية على حجم وتكوين المراكز الخارجية للدول محل الدراسة مع التركيز على مجموعة من دول الشرق الأوسط.

وتنتهي الورقة إلى ثلاث نتائج رئيسية: أولا، إن المراكز الخارجية لدول الشرق الأوسط وشمال إفريقيا تعكس أوضاعا غير متجانسة. فبينما تتمتع دول الخليج مثلا بأصول خارجية صافية، تعاني معظم الدول الأخرى من تراكم الخصوم الخارجية. ثانيا، تزايد أهمية أرصدة الخصوم التي تأخذ شكل استثمارات مباشرة واستثمارات الحافظة مقارنة بالديون الخارجية، وإن كانت بدرجة أقل في الدول الشرق أوسطية مقارنة بالدول النامية الأخرى. وأخيرا، يمكن للأصول الخارجية الصافية أن تؤدي على المدى الطويل إلى انخفاض أسعار الصرف الحقيقية في الدول المدينة على عكس الدول الدائنة.

I. Introduction

The past decade has witnessed important changes in the composition of capital flows to emerging markets and less developed countries. Flows of foreign direct investment (FDI) and portfolio investment (both in equity and debt instruments) have increased substantially in many countries, while flows of bank loans have correspondingly declined. What are the macroeconomic implications of such changes? And how do different structures of external liabilities affect the analysis of external sustainability? In order to answer such questions, it is necessary to rely on data on the level and composition of countries' external "portfolios". However, the increased importance of equity instruments poses a challenge for the analysis of a country's external position, as data on the stocks of direct investment and portfolio equity liabilities are not available for a large set of countries.

In a previous work (Lane and Milesi-Ferretti, 1999), we sought to address this shortcoming by constructing a dataset of countries' external assets and liabilities for the period 1970-1998, focusing in particular on the breakdown between debt, portfolio equity and FDI assets and liabilities. This paper makes use of that dataset. It highlights how the general patterns outlined above hide significant differences across countries and across regions, and it focuses in particular on the data for Middle-Eastern countries.

The period preceding the 1982 debt crisis was characterized by large capital flows to developing countries taking mainly the form of syndicated loans, and often used to finance government fiscal imbalances. After the debt crisis, capital flows to emerging markets slowed down markedly, and then started again in earnest at the beginning of the next decade. Their composition, however, changed significantly. The 1990s have been referred to as the "age of equity finance," (c.f. Eichengreen and Fishlow, 1998). Indeed, cross-border flows of portfolio equity and direct investment have increased dramatically during the past decade, both for industrial and for developing countries.

Several factors have contributed to these developments. On the supply side, restrictions on cross-border equity investment have been reduced—for example, pension funds and other institutional investors in industrial countries have been granted more freedom in the allocation of their assets, and improvements in communications have reduced the cost of acquiring information on assets of foreign origin. On the demand side, financial development in both industrial countries and emerging markets has been substantial, with dramatic increases in

world stock market capitalization and depth during the 1990s (c.f. Tesar and Werner, 1995; Tesar, 1999; and Stulz, 1999). Furthermore, the overall macroeconomic policy stance in developing countries has improved substantially, with lower inflation and public deficits, and barriers to cross-border flows have been reduced. Finally, the wave of privatizations in both industrial and developing countries has also encouraged cross-border acquisitions of equity stakes.

While portfolio equity investment is strongly connected to the degree of financial development of recipient countries, direct investment flows have also been directed to less developed economies.[1] In the remainder of this paper we examine, among other issues, whether there are systematic differences between the determinants of these two types of flows.

The structure of external debt flows has also changed substantially, as already highlighted above: portfolio debt flows have played an increasingly important role, substituting for a decline in the share of syndicated bank lending. In addition, the issuance of Brady bonds that marked the end of the debt crisis contributed to a change in the *stock* of outstanding debt liabilities, because it implied a conversion of outstanding syndicated loans liabilities into bonds. While the structure of debt flows and stocks is undoubtedly a crucial issue at the center of discussion on reforms of the international financial architecture, in this paper we will focus mostly on the distinction between debt and equity finance, rather than exploring shifts in the composition of debt finance.

Why should the composition of capital flows and external assets and liabilities matter? The extensive literature on determinants of currency crises has highlighted the importance of maturity and currency composition of external debt liabilities. More generally, different types of capital flows have different properties with regard to features such as risk, liquidity, "lumpiness", tradability, reversibility, expropriability, and tax treatment. In addition, the composition of capital flows may influence productivity growth in the recipient country. For example, direct investment in developing countries can involve a transfer of technology and entrepreneurial skills, as well as a financial operation, while international portfolio equity

[1] See the evidence in Hausmann and Fernández-Arias (2000a) and Albuquerque (2000). See also Borenzstein et al (1998).

flows may be useful in stimulating stock market development and improved corporate governance.

A key feature that is especially important for vulnerable developing countries is that foreign direct investment and portfolio equity flows entail different risk-sharing properties between domestic and foreign residents in comparison to external debt flows. For example, if negative shocks to the domestic economy result in a real exchange rate depreciation, the burden of servicing foreign-currency-denominated external debt will be counter-cyclical, while returns on FDI and equity will be pro-cyclical.

Notwithstanding the clear importance of these factors, international macroeconomic theory has not fully kept up pace with the evolution of international capital markets during the past decade. In the deterministic current account models of the 1970s and 1980s, the emphasis was on aggregate net flows under perfect or imperfect capital mobility. The debt crisis literature made advances in understanding the role played by sovereign risk and credit rationing in limiting debt flows, but had little to say about the alternatives of foreign direct investment and portfolio equity flows.[2] Rather, the foreign direct investment literature has typically abstracted from its financial dimension to focus on industrial organization and trade issues (eg the standard Organization-Location-Internalization paradigm) and international portfolio flows have been analyzed as an extension of the standard optimal portfolio choice problem. Although much has been learned by treating each kind of flow in isolation, existing theory has little to say on the optimal structure of capital flows in terms of the relative balance between debt, foreign direct investment and portfolio equity components.

We discussed the challenges that these questions pose for economic theory in Lane and Milesi-Ferretti (2000b); in this paper we focus more squarely on stylized facts associated with countries' external assets and liabilities, focusing in particular on countries in North Africa and the Middle East.

II. Net External Positions

A country's net external position is given by the difference between the claims held by domestic residents on foreigners minus the claims held by foreigners on domestic residents.

[2] See Eaton and Fernandez (1995), Cline (1995) and Lane (1999) on external debt.

For the purpose of this study, we divide these claims into three broad categories: debt instruments, portfolio equity instruments and foreign direct investment. Among the debt instruments we include as a separate sub-category the stock of net foreign exchange reserves, along side the stock of debt assets held by country residents abroad and the stock of external debt liabilities of the country. Hence:

$$NFA_t = FDIA_t^* + EQA_t^* + DEBTA_t^* + FX_t - FDIL_t^* - EQL_t^* - DEBTL_t^* \quad (1)$$

where *FDIA*(L)*, *EQA*(L)* and *DEBTA**(*L*) are the stocks of direct investment, portfolio equity and debt assets (liabilities) and *FX* are foreign exchange reserves. The FDI category reflects a "lasting interest" of an entity resident in one economy in an enterprise resident in another economy (IMF, 1993). This includes greenfield investment as well as equity participation giving a controlling stake (typically set at above 10%), while remaining equity purchases are classified under portfolio equity investment. This implies that in certain cases the distinction between these two categories can *de facto* be blurred, but the issue cannot be clarified further in the absence of detailed disaggregated data. The "debt" category includes portfolio debt assets and liabilities (such as bonds traded on international capital markets), syndicated loans, trade credits and other debt instruments.

How does the net external position of a country evolve over time? We can write a country's current account balance as follows:

$$CA = \Delta EQ + \Delta FDI + \Delta DEBTA - \Delta DEBTL - \Delta KA + \Delta FX \quad (2)$$

where ΔEQ and ΔFDI are net flows of portfolio equity and foreign direct investment, and the term ΔKA measures capital-account transfers (such as, for example, debt forgiveness). It follows that the current account—i.e. net of capital account transfer—is, at first approximation, an estimate of the change in the net external position (NFA).

But this is only a first approximation. As we show in Lane and Milesi-Ferretti (1999), the net external position of a country can change, at times very substantially, because of the effect of capital gains and losses on a country's external assets and liabilities. For example, a boom in the domestic stock market will, *ceteris paribus*, increase the value of foreigners' portfolio equity investment in the country and of listed companies in which foreigners have a direct investment stake. Changes in exchange rates can also generate swings in net external positions independently of the current account balance: for example, the dollar value of external debt denominated in euro goes down when the US dollar appreciates vis-à-vis the

euro and vice versa. Indeed, swings in the dollar/yen exchange rate during the 1990s implied substantial changes in the external debt burden of several East Asian countries, such as Indonesia, because a significant fraction of their debt was denominated in yen.

A final important issue concerns unrecorded capital flows. In several developing countries, capital flight has played an important role during periods of macroeconomic instability and/or external crisis, as domestic residents try to avoid the impact of devaluation (and taxation) by taking their money abroad. The large literature on measuring capital flight (c.f. Cuddington, 1986; Dooley, 1988; and Claessens, 1997) deals explicitly with this question.

III. The Data

The data presented in this paper is taken from Lane and Milesi-Ferretti (1999). The construction of the various stocks of external assets and liabilities is undertaken starting from balance of payments data, integrated with direct measures of stocks such as external debt and foreign exchange reserves. In the absence of direct stock measures, we have relied on cumulative flows, with appropriate valuation adjustments to reflect the impact of factors such as those discussed in the previous section. For example, the cumulative flows of portfolio equity are adjusted so as to reflect the impact of variations on stock market prices.

The sample includes 68 countries, listed in Table 1, for the period 1970-1998. We have three measures of net foreign asset positions. The first, available only for some industrial countries and a few developing countries and for a short time span, is the International Investment Position reported by the IMF's Balance of Payments Statistics. The second is the adjusted cumulative current account (*ACUMCA*)—a measure that includes all unrecorded capital inflows and outflows as changes in the country's external wealth. The third, *ACUMFL*, is a measure based on cumulative capital flows. The main difference between *ACUMCA* and *ACUMFL* consists in the treatment of flight capital, which is included in the former but only partially in the latter (only insofar as it is included in errors and omissions).

Table 1. List of Countries

United States*	South Africa	*Saudi Arabia*
United Kingdom*	Argentina	*Syrian Republic*
Austria*	Bolivia	*Egypt*
Belgium-Luxembourg*	Brazil	Sri Lanka
Denmark*	Chile	Taiwan province of China
France*	Colombia	India
Germany*	Costa Rica	Indonesia
Italy*	Dominican Republic	Korea
Netherlands*	Ecuador	Malaysia
Norway*	El Salvador	*Pakistan*
Sweden*	Guatemala	Philippines
Switzerland*	Mexico	Singapore
Canada*	Panama	Thailand
Japan*	Paraguay	*Algeria*
Finland*	Peru	Botswana
Greece*	Uruguay	Côte d'Ivoire
Iceland*	Venezuela	Mauritius
Ireland*	Jamaica	*Morocco*
Portugal*	Trinidad and Tobago	Zimbabwe
Spain*	*Israel*	*Tunisia*
Turkey	*Jordan*	China
Australia*	*Kuwait*	
New Zealand*	*Oman*	

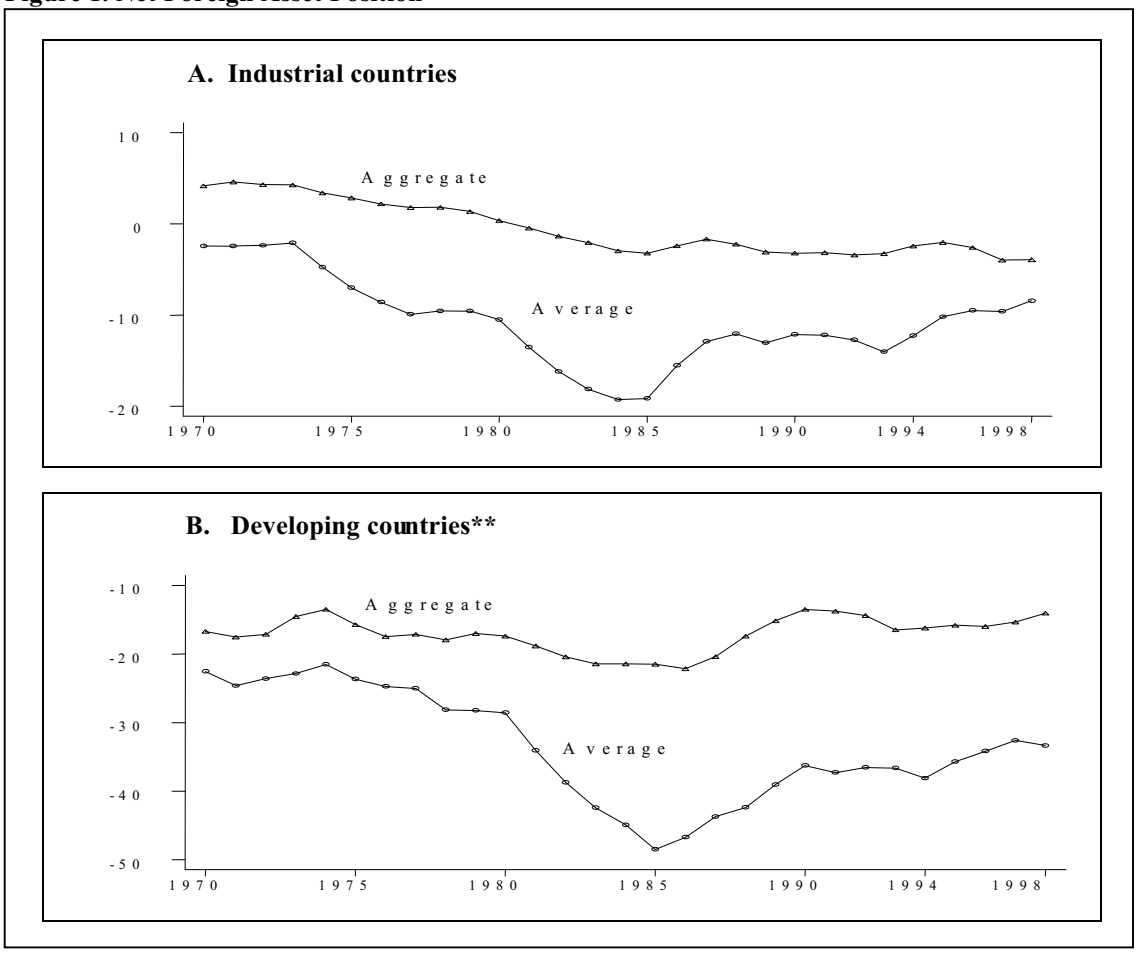
Notes: Countries are ordered by IFS code.
* = Industrial country; while "Middle Eastern" countries are indicated *in italics*.

In the following analysis, we first characterize broad trends in the time series and then characterize sources of cross-country variation.

Aggregate Trends

Figures 1A and B summarize the net external positions of the industrial and developing countries belonging to our sample. Each graph presents data for the aggregate net foreign asset position of the country group (relative to that group's total GDP) and the cross-country average NFA position. For both groups, the average position is worse than the aggregate one, indicating that, other things being equal, small countries tend to have larger net foreign liabilities. In terms of time trends, the worsening of developing countries' net external position during the debt crisis (in part due to real exchange rate depreciation) is clearly visible, and so is the recovery after 1985.

Figure 1. Net Foreign Asset Position*



Notes: * Aggregate position is the aggregate net foreign asset position (*ACUMCA*) divided by aggregate GDP. Average is the average ratio of net foreign assets to GDP among the countries in the group.
** Excludes Kuwait, Oman, Saudi Arabia and Singapore.
Source: Lane and Milesi-Ferretti (1999).

Another noticeable feature is that both the industrial and the developing country group have a negative net foreign asset position. This is a consequence of the fact that our data is constructed starting from reported current account balances and capital flows, and that there is systematic mismeasurement of the current account at the global level (the world has officially been running current account deficits for several years). The mirror image of this "current account discrepancy" is the fact that external assets are under-estimated with respect to external liabilities.

Table 2 summarizes the net external position of developing countries as of 1998 using both of our NFA measures. Most of the countries in our sample are debtors, the most notable exceptions being Botswana, Kuwait, Singapore and Taiwan. The countries with the largest

net external liabilities in our sample are Côte d'Ivoire, Jamaica and (with the *ACUMFL* measure) Indonesia. [3]

Table 2. Developing Economies: Net External Position as of 1998

1. *ACUMCA*

Creditors	Debtors (0 to 20%)	Debtors (20 to 40%)	Debtors (40 to 60%)	Debtors (over 60%)
Botswana	Algeria*	Argentina	Dominican R.	Bolivia
China	Egypt	Brazil	Guatemala	Costa Rica
Kuwait	El Salvador	Chile	Indonesia.	Côte d'Ivoire
Saudi Arabia	Israel	Colombia	Mexico	Ecuador
Singapore	Korea	India	Morocco	Jamaica
South Africa	Oman	Malaysia*	Pakistan*	Jordan
Syria	Turkey	Mauritius	Paraguay	Peru
Taiwan		Panama	Philippines	Sri Lanka
Venezuela		Uruguay	Trinidad and Tob.	Thailand
				Tunisia
				Zimbabwe**

2. *ACUMFL*

Creditors	Debtors (0 to 20%)	Debtors (20 to 40%)	Debtors (40 to 60%)	Debtors (over 60%)
Botswana	China	Argentina	Algeria	Bolivia
Israel	Korea	Brazil	Chile	Costa Rica
Kuwait	Oman	Colombia*	Dominican R.	Côte d'Ivoire
Singapore	Saudi Arabia	Egypt	Malaysia	Ecuador
South Africa	Venezuela	El Salvador	Mauritius	Indonesia
Taiwan pr. of Ch.		Guatemala	Mexico	Jamaica
Uruguay		India	Morocco	Jordan
		Paraguay	Pakistan*	Thailand
		Syria	Philippines	Trinidad and Tob.
		Turkey	Sri Lanka	Zimbabwe
			Tunisia	

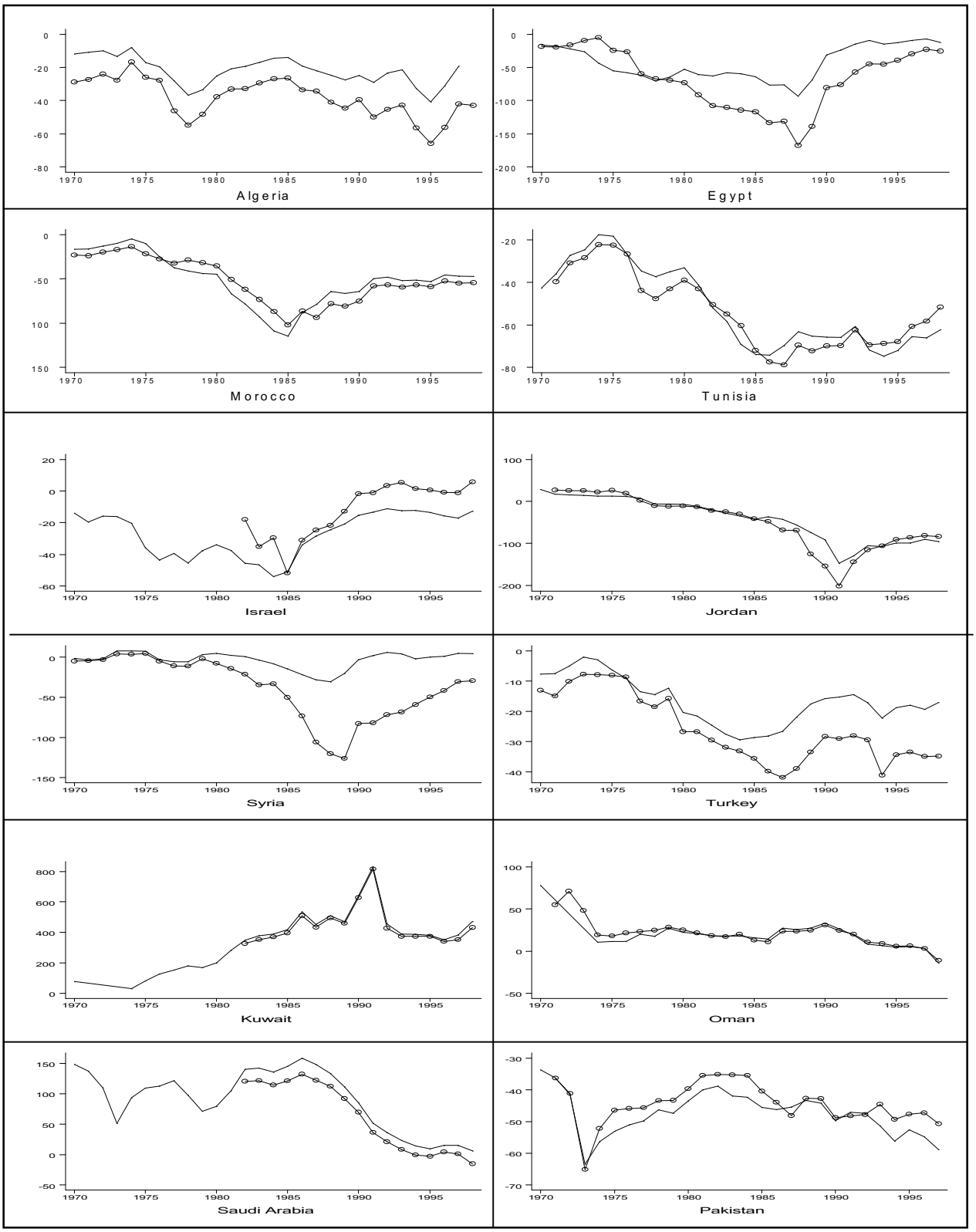
Notes: *ACUMFL*: net FDI+net equity+reserves+debt assets-external debt. *Data for 1997. ** Data for 1994
Source: Lane and Milesi-Ferretti (1999).

Developments in Middle-Eastern Countries

We classify 12 countries in our sample as belonging to the North Africa and Middle East region: Algeria, Egypt, Israel, Jordan, Kuwait, Morocco, Oman, Pakistan, Saudi Arabia, Syria, Tunisia and Turkey. Figure 2 plots two measures of the net external position for these countries:

[3] Jordan is also one of the countries for which measures of external assets differ most significantly: if the assets held by Jordanian residents in BIS-reporting banks were used instead of cumulative outflows, the country's NFA position would improve dramatically, with net liabilities of around 10 percent of GDP in 1997.

Figure 2. Net Foreign Asset Positions, MiddleEastern Countries



Cumulative current account (*ACUMCA*)
Cumulative capital flows (*ACUMFL*)

The figure highlights stark differences within these countries in the evolution of their net external positions. For Kuwait, Oman and Saudi Arabia, for example, the net external position has typically been positive, and in the latter two countries it has worsened during the 1990s, a development associated with the weakening of oil prices. In Israel, Morocco and Tunisia, the dynamics of the net external position follows the "average" pattern of developing countries, with a progressive worsening of the net external position until the mid-eighties and a steady improvement thereafter.

For Egypt, a turnaround in the trend of the net external position occurred in 1989 and especially in 1990, in conjunction with debt reduction agreements that reduced the external debt burden by close to a third of 1990 GDP. The improvement has continued over the following years, thanks to current account surpluses for the first half of the 1990s. Jordan's net external position deteriorated sharply in the late eighties and early nineties, reflecting current account imbalances, real depreciation and weak economic activity, but has since improved. Syria followed a similar pattern. Finally, Pakistan's net external position has steadily deteriorated since the period following the debt crisis.

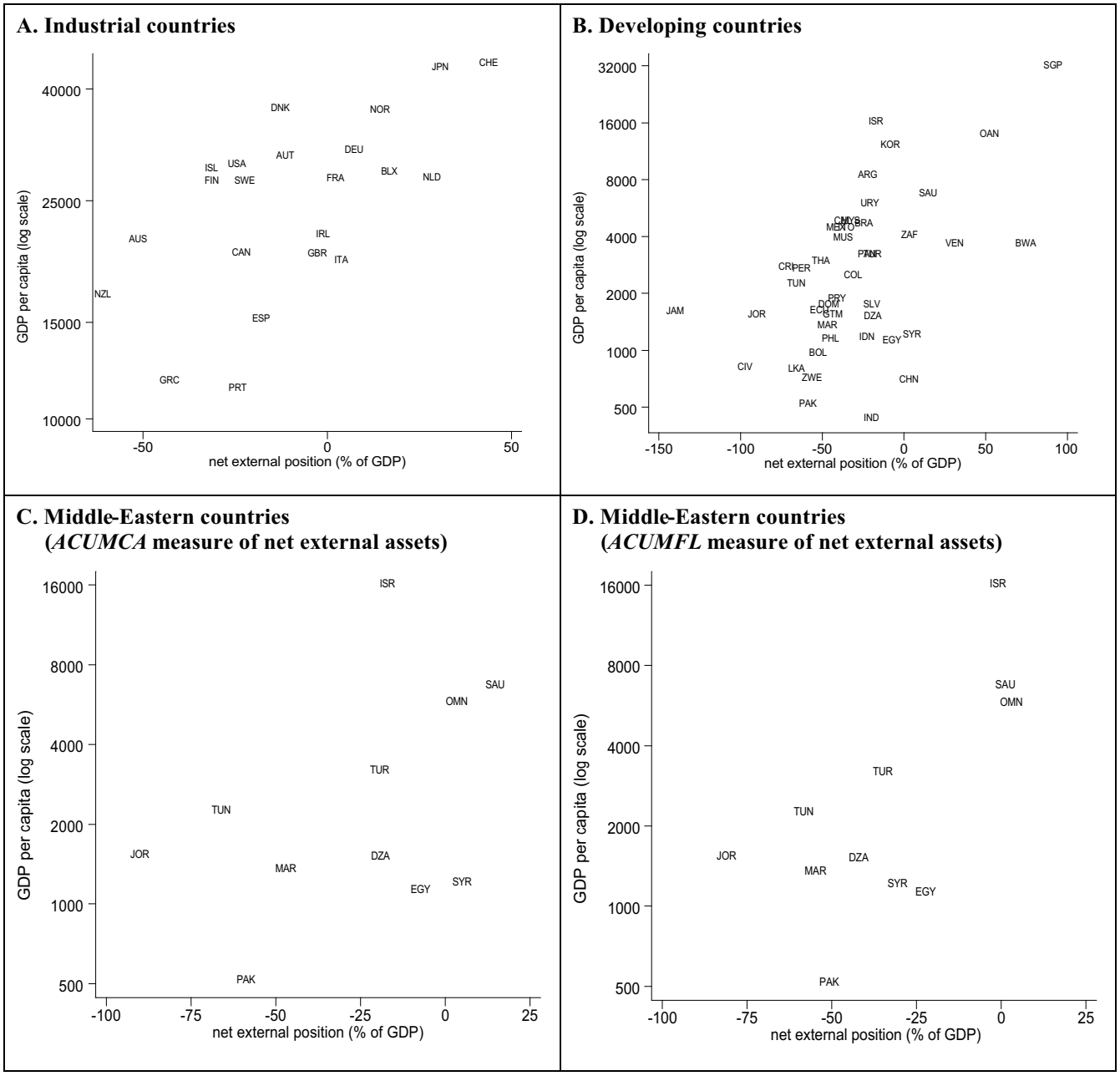
Explaining Net External Positions

There is a dearth of studies attempting to explain the evolution of net external positions, the main reason being the lack of data.[4] In Lane and Milesi-Ferretti (1999, 2000b) we present results of simple cross-sectional regressions, relating the net external position of countries in a given year or given time period to "fundamentals" such as GDP per capita, country size and trade openness. The clearest "stylized fact" is the positive relation between GDP per capita. This relation is illustrated in Figure 3, a scatter diagram plotting the net external position in 1997 (as a ratio of GDP) on the horizontal axis and the level of GDP per capita at constant prices the same year (using the measure reported in the World Bank's World Development Indicators database) on the vertical axis. The positive relation between GDP per capita and the ratio of net external assets to GDP is clearly visible for both industrial and developing countries (panels A and B). Panels C and D show that the relation holds for countries in the

[4] One exception is the paper by Masson, Horne and Kremers (1994). These authors find some evidence of a long-run relation between the ratio of NFA to GDP, the ratio of public debt to GDP and demographic variables for Germany, Japan and the United States.

Middle-East and North Africa region as well, regardless of whether we use the *ACUMCA* or the *ACUMFL* measure of net external assets.

Figure 3. Net External Position and GDP per Capita, 1997



But what drives the dynamics of net external positions *within* countries? In Lane and Milesi-Ferretti (2001) we show that the relation between net external assets and GDP per capita is strong, not only along the cross-sectional dimension, but also along the time series dimension. That is, countries that become richer than their trading partners tend to register an

improvement in their net external position, and vice versa. In other words, the evidence suggests that good economic performance goes together with an improvement in external accounts. In this respect, the evidence is stronger for industrial than for developing countries—indeed, for the latter, one can conjecture that there may be stages in development during which high investment needs may cause the relation between net external position and income per capita to become temporarily negative.[5]

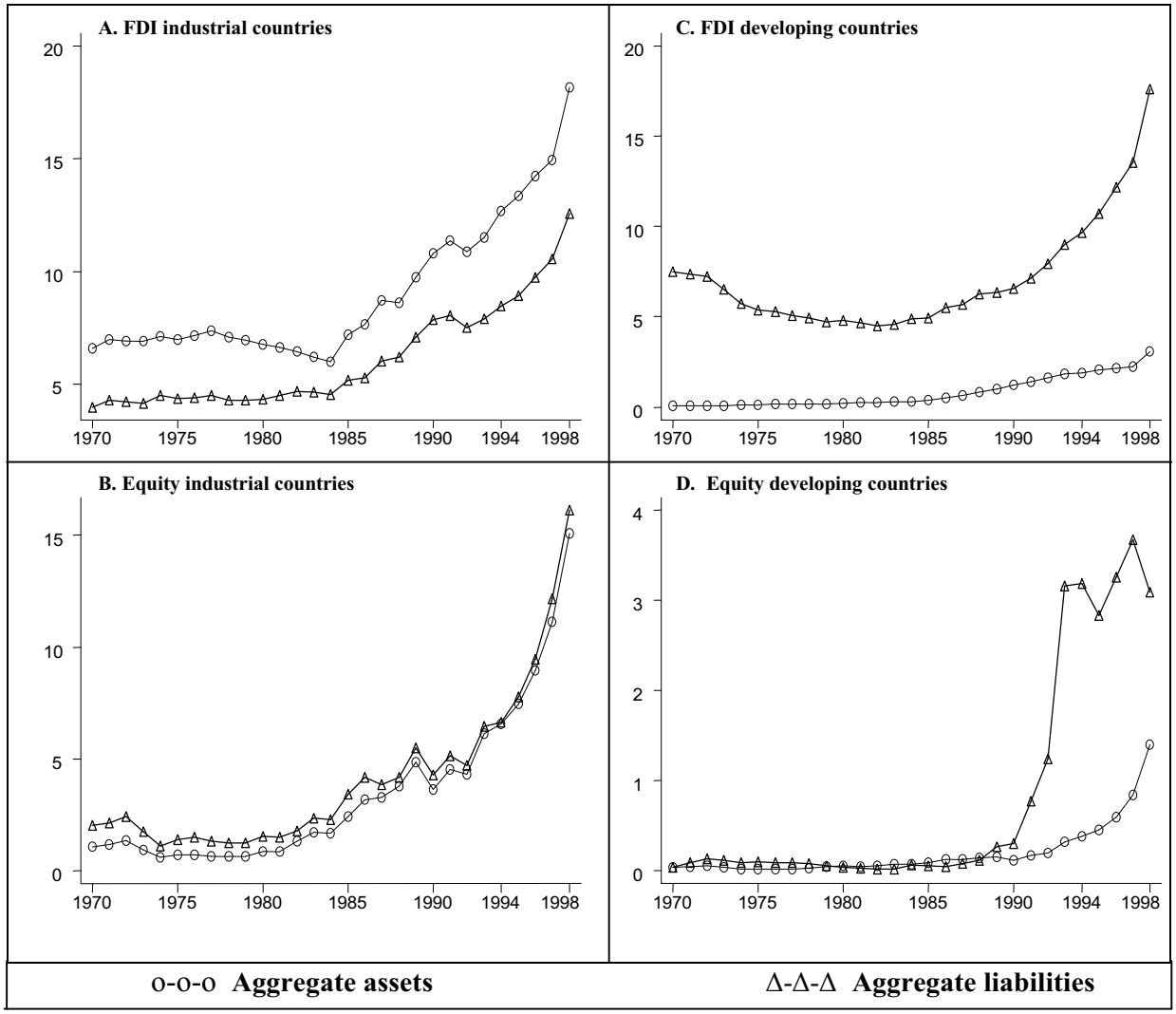
Other factors play important roles in shaping the dynamics of country's net external positions: fiscal policy and demographic factors. The data show, in particular for developing countries, a strong relation between the dynamic of net external liabilities and government debt—a finding which is very reasonable given that for many less developed countries the sovereign is the primary borrower on international capital markets and that private sector assets to those markets is limited (Lane and Milesi-Ferretti, 2001). Demographic factors have been shown to have effects on national saving and domestic investment (c.f. Higgins, 1998; and Herbertsson and Zoega, 1999), with countries having a predominantly young population having higher investment and lower savings, and hence larger current account deficits and an accumulation of external liabilities.

IV. The Composition of Net External Positions

As highlighted in the introduction, the last decade has seen a sharp increase in direct investment and portfolio equity flows to developing countries, as well as among industrial countries. Figure 4 summarizes these broad trends. In particular, Panels A and B highlight the boom in FDI and equity stocks in industrial countries, starting in the mid-1980s. As widely documented, most equity and direct investment flows take place within industrial countries, and have resulted in a very sharp increase in international portfolio diversification (larger gross assets and liabilities). The stock of direct investment and portfolio equity liabilities have increased sharply in developing countries as well, in particular during the 1990s.

[5] We thank Mahmoud El-Gamal for suggesting a non-linear relation between income and net foreign assets for developing countries.

Figure 4. Aggregate FDI and Portfolio Equity Stocks, 1970-98 (ratios of GDP)*



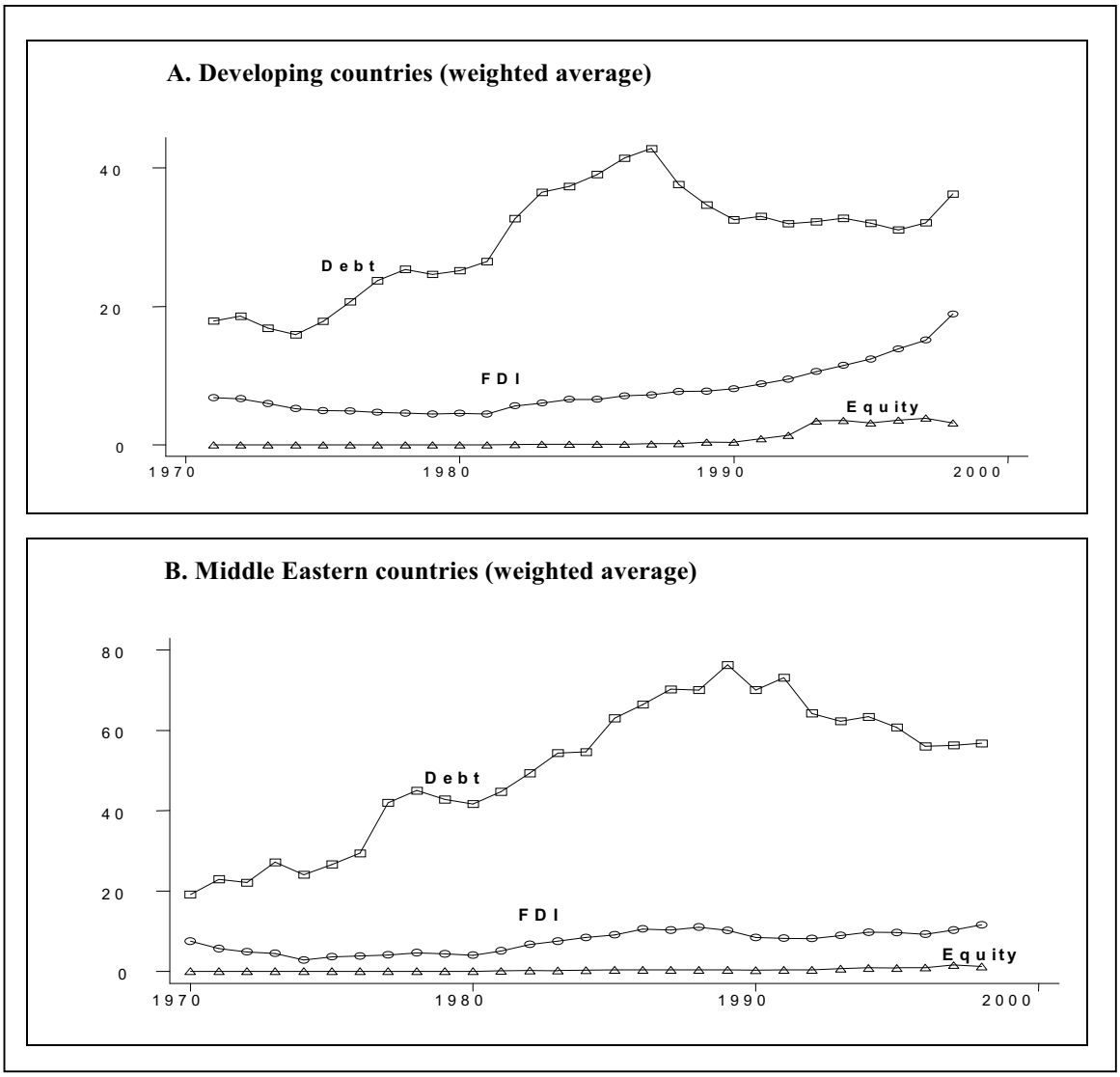
Note: * The developing country sample excludes Kuwait, Oman, Saudi Arabia and Singapore.
Source: Lane and Milesi-Ferretti (1999).

In Panel A of Figure 5, we compare the evolution of FDI and equity stocks for the group of developing countries in our sample with the evolution of external debt. Even though the size of debt stocks is clearly higher, the increased importance of FDI and equity flows relative to debt flows emerges quite clearly from this picture. Panel B presents the same data for the Middle-Eastern countries in our sample, where the data are calculated as aggregate "regional" stocks as a ratio of regional GDP.[6] Taken together, these pictures show clearly that in Middle-

[6] The trends would be similar if we were to simply average the ratios of FDI, equity and debt stocks to GDP across the countries in the region.

Eastern countries, FDI and equity stocks are less important, relative to debt, than they are in developing countries more generally.

Figure 5. Debt, FDI and Equity Liabilities (ratios of GDP)



Clearly these averages tend to mask some heterogeneity across countries. Tunisia had the largest stock of foreign direct investment liabilities relative to its GDP at the end of 1998 (over 23 percent), with Egypt's stock of FDI liabilities not far behind (around 20 percent). At the other end, the stock of FDI liabilities is below 5 percent of GDP in Algeria, Syria and Turkey. The country in the region with the largest share of portfolio equity liabilities is Israel (over 6 percent of GDP), followed by Morocco, Pakistan, Tunisia and Turkey (around 3

percent of GDP). One should note here that we estimate the stock of FDI liabilities at book value, but the stock of portfolio equity liabilities at market value. Hence, portfolio equity liabilities decline when the stock market index of the country (in US dollar terms) declines and vice versa.

What are the factors that can help explain cross-country differences in debt, FDI and equity stocks? As we show in Lane and Milesi-Ferretti (2000b), the stock of external debt tends to be higher in countries with lower GDP per capita. The stock of debt is also negatively correlated with population size and positively correlated with the degree of trade openness of the country.[7]

Are the factors explaining cross-country differences in FDI and equity stocks different from those explaining debt stocks? The answer is yes. The most important factor associated with the stock of foreign direct investment liabilities is trade openness, as measured by the sum of imports and exports as a ratio of GDP: countries more open to international trade tend to receive more FDI. In addition, FDI tends to be higher in countries with a larger share of natural resources (measured as exports of fuel and ore as a ratio of GDP) and those who have relied more heavily on privatization. All these findings are reasonable: historically, FDI has been associated with the exploitation of natural resources, and privatization of public enterprises has often attracted the interest of foreign investors. Once we control for these factors, the level of development is not strongly correlated with FDI liabilities.

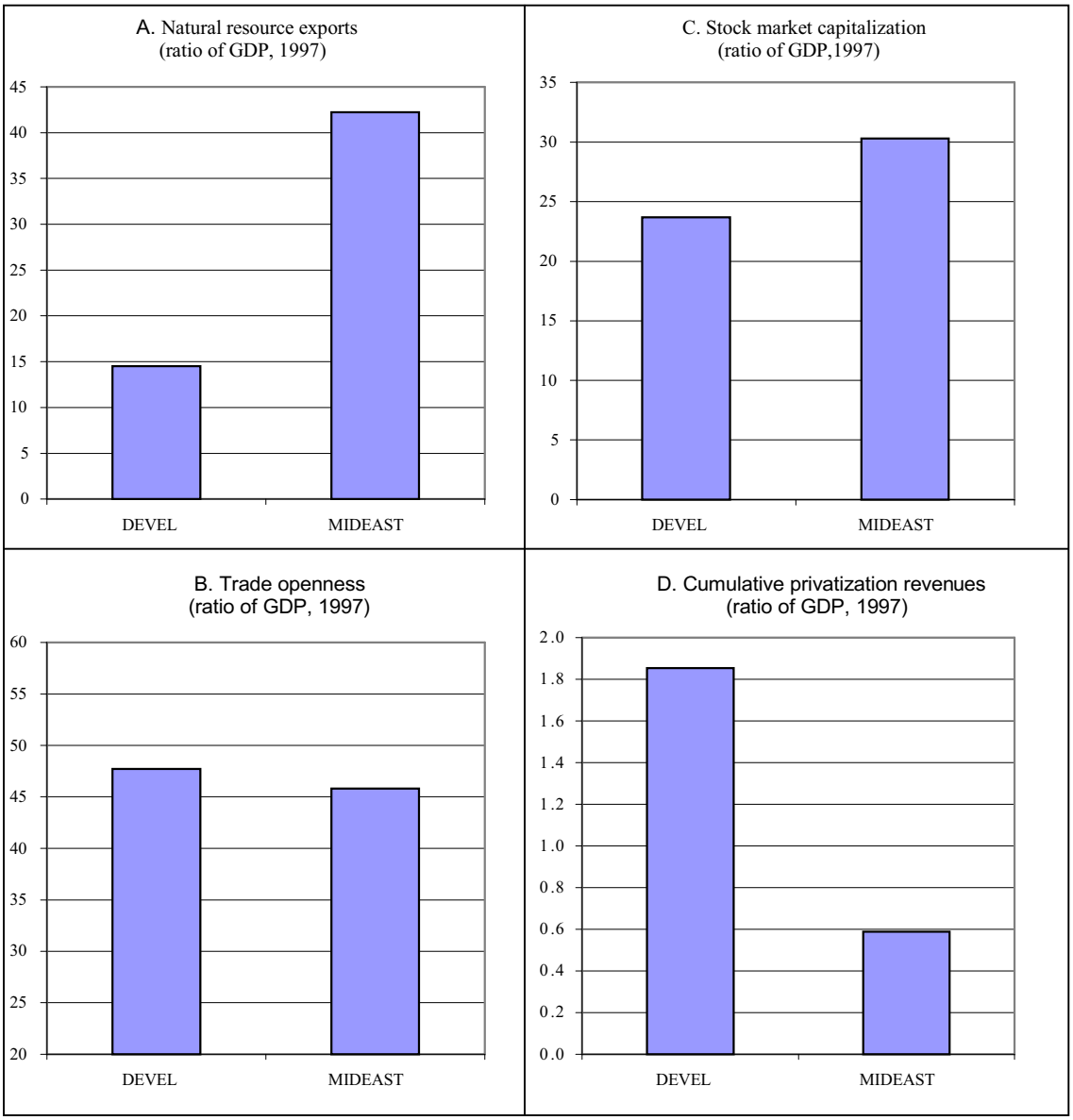
The primary factors explaining cross-sectional differences in portfolio equity investment among developing countries are country size and the degree of stock market capitalization (measured as a ratio of GDP). Clearly, larger and more financially developed countries can attract the interest of foreign portfolio investors more easily.

How do Middle-Eastern countries compare with other developing countries with regard to the factors explaining cross-country differences in FDI and equity stocks? Figure 6 shows the median values of natural resources' exports, trade openness, stock market capitalization and cumulative privatization proceeds for developing countries as a whole and for Middle-Eastern countries. Two stark differences emerge from this Figure. Not surprisingly, the first is that

[7] See Lane (2000) for a more comprehensive theoretical and empirical discussion of external debt trends in developing countries.

the share of natural resource exports as a ratio of GDP in Middle-Eastern countries is much higher than for the whole sample of developing countries. Second, Middle-Eastern countries have a lower share of privatization proceeds relative to the sample of developing countries. There are smaller differences in the degree of trade openness and stock market capitalization.

Figure 6. Factors Associated with FDI and Equity Liabilities



How can we reconcile these factors with the evidence on the lower share of FDI and equity stocks in Middle-Eastern countries? With regard to FDI, the correlation between the stock of direct investment liabilities and the share of natural resources' exports is actually negative. The same holds for the correlation between stock market capitalization (which is high in countries such as Jordan and Kuwait) and the stock of portfolio equity liabilities. Hence, while it is clear that factors such as financial development and privatization tend to encourage capital flows in the form of equity and FDI, other factors, such as political risk and controls on these types of flows obviously play an important role as well. Indeed, while it is becoming more and more difficult to impose effective controls on capital outflows and on some type of inflows, foreign direct investment, by its own nature, can be more easily restricted.

V. Net External Positions: Implications for Real Exchange Rates

In this section, which draws on Lane and Milesi-Ferretti (2000a), we discuss the implications of the dynamics of net external positions for real exchange rates. The relationship between international payments and the real exchange rate—the "transfer problem"—is one of the classic questions in international economics, brought to the fore by the debate in the 1920s between Keynes (1929) and Ohlin (1929) on the impact of German war reparations. Several theoretical approaches predict that real appreciations should be associated with accumulation of net foreign assets in the long run. In a simple Keynesian setting, countries with large external liabilities need to run large trade surpluses in order to service them, and achieving these trade surpluses requires (by assumption) a more depreciated level of the real exchange rate (c.f. Mussa, 1984). In intertemporal optimizing models, the transfer effect can operate in the presence of a home preference for domestic tradables (c.f. Buiter, 1989), or through the impact of wealth effects on labor supply. (c.f. Obstfeld and Rogoff, 1995).[8]

[8] Another alternative, presented in Obstfeld and Rogoff (1996), is a Ricardian model where a range of goods is not traded, due to transport costs. In this setting, a transfer from the home to the foreign country raises spending on foreign nontradables: foreign wages rise, the foreign export sector declines and the home export sector expands. The foreign terms of trade improve and the foreign real exchange rate appreciates.

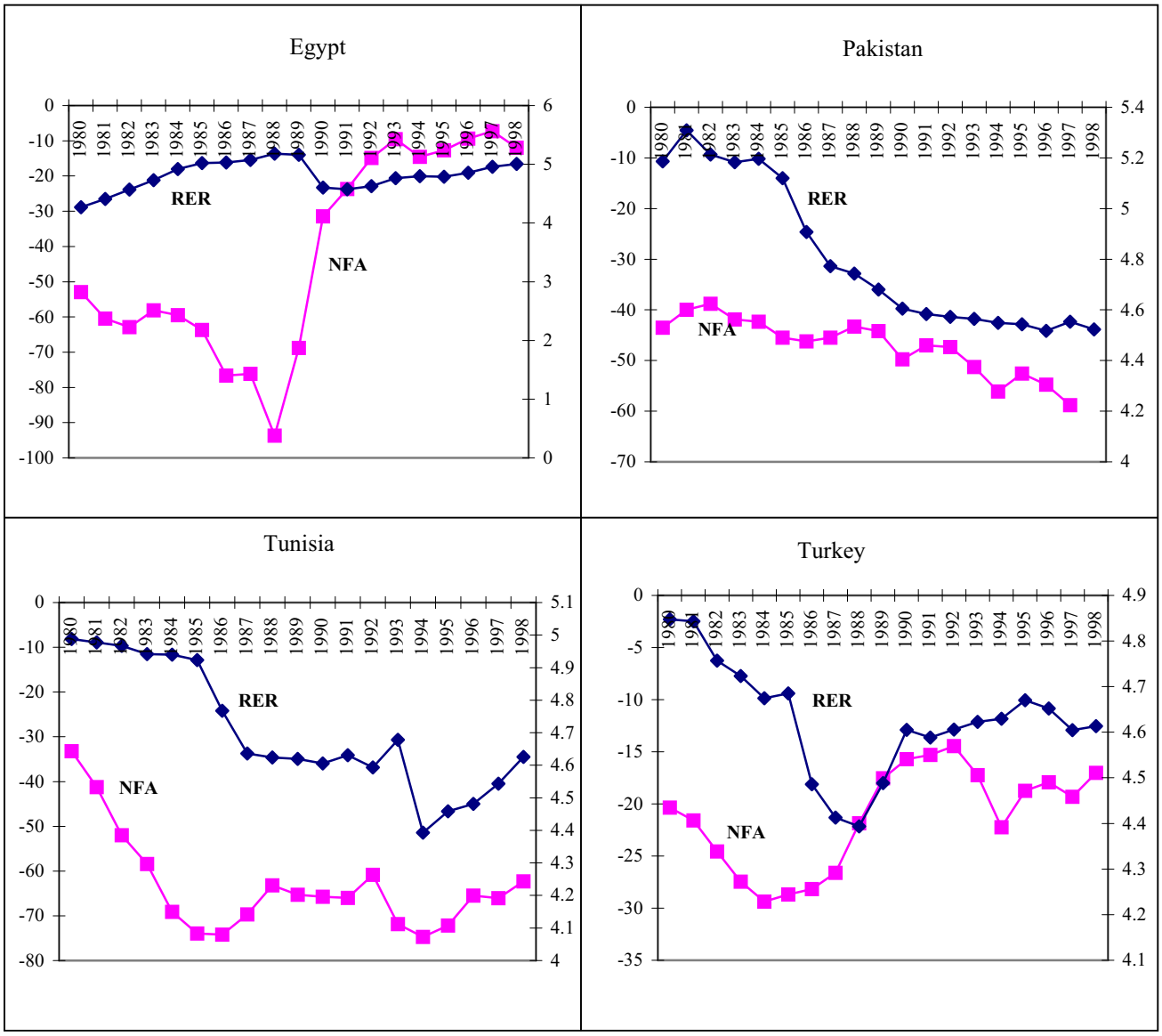
In Lane and Milesi-Ferretti (2000a) we present empirical results showing a strong cross-sectional correlation between changes in real exchange rates and changes in net foreign assets, in both industrial and developing countries. A significant long-run transfer effect of remarkably similar magnitude is also found in the fixed-effects panel estimation: in the long run, improving net external positions are associated with appreciating real exchange rates.[9] The elasticity of the real exchange rate with respect to net external assets is around 0.25, implying that a country with external balance would have to have a real exchange rate depreciation of around 12 percent to service external liabilities of 50 percent of GDP, other things equal.

The evidence for Middle-Eastern countries is very much in line with the evidence for other developing countries: real exchange rates and net external positions tend to move together, and the size of the "transfer coefficient" for the group of countries as a whole is of the same order of magnitude. In Figure 7, we plot data on the CPI-based real effective exchange rate (in natural logarithms) and the net external position as a ratio of GDP for 4 countries: Egypt, Pakistan, Tunisia and Turkey from 1980 to 1998. The co-movement between real exchange rates and net external assets is very strong for the latter three, but not for Egypt.

More generally, the long-run equilibrium relation between net foreign assets and real exchange rate presupposes market-determined exchange rates. Clearly, an overvalued exchange rate supported by capital controls can artificially reduce the share of net external liabilities to GDP by reducing the domestic-currency value of external liabilities. In this case, a nominal devaluation would then raise the ratio of external liabilities to GDP, artificially generating a positive co-movement between net foreign assets and real exchange rates. An indication that this factor is at play in some developing countries is the absence of a strong relation between real exchange rates and productivity growth relative in developing countries as a whole. This result may be due to the fact that real exchange rate overvaluation is clearly bad for growth.

[9] Of course, the relation between net external position and real exchange rates can be of the opposite sign in the short run: a shock causing a temporary exchange rate depreciation may be reflected in net accumulation of external assets as hence an improvement in the net external position. But in the long run, the need for debtor countries to service their external liabilities will tend to induce a positive co-movement between net external assets and real exchange rates.

Figure 7. Net External Position and Real Exchange Rate



Note: Net foreign assets measured on left scale, logarithm of the real exchange rate on the right scale.
Source for date: Lane and Milesi-Ferretti (2000a).

VI. Concluding Remarks

In this paper, we briefly discussed net external positions in developing countries in general, and in Middle-Eastern countries in particular, using a new cross-country dataset on external assets and liabilities. In sum, the countries in the region present a very heterogeneous picture, with Gulf countries typically holding net external assets and other countries in the region with large external liabilities. Stocks of equity liabilities, in the form of direct investment and

portfolio equity investment, are growing in importance with respect to debt liabilities, but are smaller in Middle-Eastern countries with respect to other developing countries.

Finally, net external assets can be an important driving force of real exchange rates in the long run, as debtor countries have more depreciated exchange rates than creditor countries.

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