Things are different when you open up: Economic openness, domestic economy, and income

Beja, Edsel Jr.

Ateneo de Manila University

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THINGS ARE DIFFERENT WHEN YOU OPEN UP: ECONOMIC OPENNESS, DOMESTIC ECONOMY AND INCOME

Edsel L. Beja, Jr.

Abstract

"What is the contribution of economic openness and the domestic economy to income?" is tested using quantity measures of trade, finance, and domestic economic base. The short answer is: "It depends". Africa and the Americas lose from both trade and financial openness. Asia gains from trade openness but not from financial openness. The industrialized region benefits from both trade and financial openness. In all regions, the domestic economic base compensates for any adverse effects of economic openness. The overall experience with openness could still be enhanced with healthier external and domestic engagements, especially with the latter increasing its relative role in economies. The case study on the Philippines finds that its economy gains from trade and financial openness but not from its domestic economic base. In this case, economic progress is difficult because the gains from external engagement are wiped out by the losses from domestic economy disengagement.

INTRODUCTION

The nature of trade and financial flows has dominated economic debates since the 1970s, with the end of the Bretton Woods system and thus began the period deregulation and financial liberalization. The argument is that unrestricted and unprecedented growth of trade and finance validated the (re)emergence of economic globalization. Resources can be obtained from the world economy and, when these are applied in the domestic economy, they would enlarge productive possibilities, generate economic activities, and increase incomes. Economic objectives are thus

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realized without the need for socio-political struggles. Therefore relatively open economies can achieve economic progress much more easily relative to the closed ones.

Literature on the relationship between (some measures of) trade openness and economic progress exists is available, with Dollar (1992), Sachs & Warner (1995), Edwards (1998), Frankel & Romer (1999), and Wacziarg & Welch (2003) as notable works. There is no need to go into a discussion of this literature, except to note that they find a positive correlation between trade openness and income. Some reasons for such correlation include greater access to a large external market that induces scale economies, efficiency through specialization, etc. But there are indirect benefits, too, such as increased investment and technology flows, diversification of production structures, etc., that help sustain economic expansion and induce cumulative advancement toward economic prosperity.

Levine & Renelt (1992), Harrison (1996), Pritchett (1996), Rodriguez & Rodrik (1999), Wacziarg & Welch (2003), and Rodriguez (2007) have challenged the above view. They show empirical results that do not confirm or get results that refute the positive relationship between trade openness and income. Rodrik et al. (2002), Dollar & Kraay (2003), Chang et al. (2005), and Rigobon & Rodrik (2005), on the other hand, have found that institutions are important for trade openness to bring about its expected outcome. What these latter studies show is that trade flows (in themselves) play little, if any, role in raising incomes. Rather, the benefits of trade openness are contingent on the level of economic progress. In short, the complementary factors that support trade openness are important in transforming potential gains into actual increases in income.

There is also literature on the relationship between (some measure of) financial openness and economic progress like King & Levine (1993), Quinn (1997), Edwards (2001), Beck et al. (2000), Edison et al. (2002), and Prasad et al. (2007). Financial openness can address problems like limited capital and investments. Financial repression or similar restrictive arrangements make funds unnecessarily expensive and misallocated, and thus constrain economic activities. As with trade openness, there are indirect benefits from financial openness, of which the introduction of

(some sort of a) disciplining mechanism that rewards the adoption of more sensible economic policies, the enhancement of domestic competition that improves resource allocation, and the diversification of domestic production that induces industrial deepening are the most important. As the economy matures, it mobilizes more funds to support further economic expansion. As the economy builds up capacity, it deploys funds more effectively. Robust economic performance is thus attained through a circular process of continuous expansion fueled by finance. As such, financial openness is an important component of economic progress.

Griffin & Enos (1970) and Kaminsky & Reinhart (1999) find that financial openness results in contrary, if not perverse, outcomes. Rather than experiencing financial inflows, what has happened in many regions is financial outflow (see, e.g., Boyce and Ndikumana 2001; Esptein 2005; Beja 2006). Financial instabilities after financial openness resulted in economic problems, especially in developing economies (see, e.g., Eatwell 1996; Kaminsky & Reinhart 1999; Reinhart and Tokatlidis 2005). Rodrik (1998), Prasad et al. (2003), and Kose et al. (2007) point out that the positive relationship between financial openness and income are obtained with better empirical techniques, but the results cannot support strong arguments about the impact of financial openness. Henry (2007) and Rodriguez (2007) point out that the purported relationship is rejected because the empirics could not capture the small, even temporary, gains from financial openness. But Obstfeld (2008) argues that even such small positive relationship between financial openness and income is difficult to find.

However, studies generally find a positive relationship between financial openness and income exists once an economy reaches a threshold of institutional and organizational advancement (see, e.g., Prasad et al. 2003; Kose et al. 2007). The empirics suggest that structural transformation and policies that result in economic stability, strengthen competitiveness, and enhance governance are crucial to get a positive experience with financial openness. Opening up is thus not a one-shot action but it is a serious engagement that requires hard work and sustained effort. Otherwise, short-term benefits are easily reversed because of the medium- or long-term

problems generated by financial openness.

The notion that a solid domestic economic base – that is, robust productive structure, adequate infrastructure and human capital, effective institutional and organizational systems, etc. – is fundamental for economic progress was established in earlier literature, such as Myrdal (1957), Hirschman (1958), Gerschenkron (1962), Rosenstein-Rodan (1961), List (1966), Kaldor (1967), and Chenery et al. (1986). Recent literature like Johnson (1982), Gold (1986), Amsden (1989), Haggard (1990), Wade (1990), Evans (1995), Weiss & Hobson (1995), Chang (1996; 2002), Lall (1996), and Reinert (2007) have renewed the argument about the importance of ensuring the integrity of the domestic base before and during economic opening in order to realize and sustain economic progresses. In short, economies that have weak or weakened domestic base fail in the end to reap the benefits of economic openness.

This paper as: "*What is the contribution of economic openness and the domestic economy to income?*"[1] The answer is obtained by taking the response of income to changes trade flows, financial flows, and domestic economic base, respectively; that is, solving the income elasticities. The next section discusses the methodology. Then the results are presented, firstly, on the cross-country study and, secondly, a Philippines case study. Cross-country analysis presents the general tendencies but it is not as useful to appreciate the country-level experience. The case study allows for a closer exploration of the results but it is not useful for generalizations. Juxtaposing the two results gives a deeper appreciation of the issue under consideration. The last section concludes the discussion. The study covers the period 1980 to 2005 and 71 economies, distributed across Africa, Asia, Americas, and industrialized regions.[2] Raw data are from the *World Development Indicators* (2007) and Lane & Milesi-Ferretti (2007).

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[1] Economic openness covers both trade and financial openness. Trade openness is the state of low barriers to the flow of goods across borders. In contrast, trade liberalization is the process of lowering the barriers to ease trade flows. Correspondingly, financial openness is the state of low barriers to the flow of capital across borders. Thus financial liberalization is the process of lowering the barriers to ease financial flows.
[2] Only countries that are relatively large in terms of population and with consistent data series over the 26 years period are included. See Appendix for list of countries.

METHODOLOGY

In this paper, "economic openness" means external engagements that have effects on income, which covers the flows of trade and finance.[3] Domestic economic base is also important because of its effects on income. Economic openness interacts with domestic conditions thus producing further effects on income. How authorities participate in the economy is not covered in the paper for practical reasons. Income distribution is also excluded to have a manageable model specification. Needless to say, the results are to be interpreted as "best case" scenarios if income inequality is significant in a particular region.

The external and domestic conditions plus their interactions are modeled as follows: Y =

$$\Phi_T \sum_m \sum_n X_T \cdot R_m T_n + \Phi_K \sum_m \sum_n X_K \cdot R_m T_n + \Theta \sum_m \sum_n Z \cdot R_m T_n + \Omega \sum_m \sum_n X_T X_K Z \cdot R_m T_n + u + v + e, \text{ where Y}$$

is average income; X_T and X_K are trade and financial flows, respectively; Z is domestic economic base; R is regional dummy; T is decadal dummy; u and v are fixed effects; and e is the residual. Average income is gross domestic product (GDP) per capita, which is a "direct" measure of economic welfare.

Trade openness is defined as the state of low barriers to the flow of goods across borders. It is operationalized as the share of gross trade (i.e., exports plus imports) to GDP and the share of net trade (i.e., exports minus imports) to GDP. The former captures the overall effect of openness, while the latter is for the directional effect.

In similar fashion, financial openness is defined as the state of low barriers to the flow of capital across borders. It is operationalized as the share of gross capital flows (i.e., assets plus liabilities) to GDP and the share net capital flows (i.e., assets minus liabilities) to GDP. As with trade, the former captures the overall effect of openness, while the latter is for the directional effect.

Gross flows may mean positive (negative) effects on income, while net flows may have

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[3] If the focus is policy, "economic openness" would be interpreted using policy-based definitions like tariff rates and capital controls.

non-trivial negative (positive) effects on income. Most analyses ignore this aspect between gross and net flows. As such, there is the possibility that results overestimate (underestimated) the impact of openness. The setup controls for the contradictory effects generated by gross and net flows. The strategy is to use the net flows results as adjustments on the gross flows results.

Domestic economic base is operationalized as the ratio of population to total land area. There are other measures but not enough data are available for large cross-country empirics. The rationale of the setup is from home-bias effect argument in Tinbergen (1962) and McCallum (1995), who found that the big economies are "distant" from the external economy with regards to trade since transactions are relatively secure within their borders plus the large domestic market serves as a "captured" market for domestic producers. Small economies, on the other hand, need to engage the external economy to make domestic production and industrialization viable. With regards to finance, "distance" may be less obvious given advances in technology and computing. Still, domestic size is an important factor in, say, investment decisions. Feldstein & Horioka (1980) and French & Poterba (1991) found that the big economies are typically "distant" from the external economy since they tend to rely on domestic rather than foreign savings.

Because of the gross and net specifications for openness, there are also two sets of results for domestic size. Taking off from Mundell (1957) and Markussen (1983), the results from the empirics with gross flows are used as the adjustments on the results from the empirics with the net flows. The setup controls for hazards like threat-effects due to race-to-the-bottom competition, production and/or capital pullout, or social safety nets or public support elimination that come with economic openness and undermine the domestic economic base.

The fourth term model is the interaction term of X_T, X_K, and Z. It acknowledges the possibility that trade and financial flows complement in some way. How their interactions work out depends on specific domestic conditions. The strategy is to introduce the interaction term with the expectation that it has a positive effect on income.

Region-related factors are captured by a dummy variable, R, covering Africa, Asia,

Americas, and industrialized regions. R takes the value of one if the region is, say, Africa; zero otherwise. The setup controls for idiosyncratic region characteristics independent of economic openness, domestic economic base, and time. Thus it is known that many high performing developing economies are clustered in Asia, while many poor performing economies are clustered in Africa. It is also known that spillover effects from regional expansion pulls up other economies in the region, say, in a "flying geese" fashion (see, e.g., Akamatsu 1961). Commonalities in infrastructure, institutions and organizations, human capital, etc., are also relevant (see, e.g., Acemoglu et al. 2001). That is, R attempts to even out the specific economy variations to extract the regional trends.

The period dummy, T, covers the 1980s, 1990s, and 2000s. T takes the value of one if the period is the 1980s; zero otherwise. The setup controls for idiosyncratic period characteristics independent of economic openness, domestic economic base, and region. It is known, for instance, that economies share expansions and contractions in, say, an economic synchronization fashion (see, e.g., Kose et al. 2003; Kose et al. 2008). T attempts to even out the specific economy variations to extract the secular trends.

The use of R and T anticipates potential endogeneity issues that the setup might bring. There are studies that employ distance between the country or capital and the equator to control for potential endogeneity. Putting distance in the model transforms the setup to a gravity model of economic openness, which creates complications in the estimation. In addition, a gravity model would not allow an interpretation of results that the model in this paper tries to accomplish.

There are cross-interaction terms for economic openness, domestic economic base, and region-period dummies to (indirectly) control for factors like infrastructure, institutions and organizations, human capital, etc., including (possible) endogeneity associated with such factors. Obviously, the stages of development are relevant in that they affect the way the changing factors (i.e., economic openness and domestic economic base) interact with the unchanging (i.e., region and time) or slow changing factors (i.e., infrastructure, institutions and organizations, and human

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capital). The strategy makes the results not useful for policy. However, they remain suggestive on how the variations in policies and/or conditions affect income (Frankel & Romer 1999).

To address (possible) endogeneity problem associated economic openness and domestic economic base the model is estimated using Two Stage Least Squares procedure. The regression results are in the Appendix. Then the last step is to calculate income elasticities due to trade and financial openness and domestic economic base: $\varepsilon_{\Gamma} = \hat{\Phi}_{\Gamma} \cdot \dfrac{\overline{X}_{T}}{\overline{Y}}$, $\varepsilon_{\kappa} = \hat{\Phi}_{\kappa} \cdot \dfrac{\overline{X}_{K}}{\overline{Y}}$, and $\varepsilon_{Z} = \hat{\Theta} \cdot \dfrac{\overline{Z}}{\overline{Y}}$, respectively, where $\hat{\Phi}_{\Gamma}$, $\hat{\Phi}_{\kappa}$ and $\hat{\Theta}$ are the regression coefficients (Table X), and $\overline{X}_{T}$, $\overline{X}_{K}$, $\overline{Z}$ and $\overline{Y}$ are the standard means of the indicators (Table 1).

CROSS-REGIONAL EXPERIENCE

Trade Openness and Income

Table 1 reveals that Africa's gross income elasticities due to trade flow have declined between the 1980s and the 2000s. The figures adjusted for the trade balance indicate that Africa has not benefited from trade openness, especially since the 1990s. They show a shift in the way trade flows have affected income: from a positive effect in the 1980s to a negative one afterwards. The recent figures suggest contractions in income despite increases in trade openness.[4] Therefore a positive relationship between trade openness and income is not defensible in Africa.

There is no question that African economies have been opened to trade. The problem, however, is not whether the region has embarked on opening up; rather, the nature of its external engagement has been problematic. For instance, Africa has remained specialized in primary and low technology goods production, and so its trade does not generate large income effects. Second, African trade has, on the whole, been directed to African economies instead to the world

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[4] 10 units increase in trade openness implies 41units decrease in income (or 7.1 per cent of average income in the 2000s); at 15 units, 61.5 units decrease in income (or 10.7 per cent of average income in the 2000s).

economy. They compete with each other since they have similar goods and go to the same market. Moreover, African problems like inadequate infrastructure, limited institutional and organizational systems, poor human capital, unsteady macroeconomic and political conditions, and so on have impeded structural transformation. These problems have become severe especially since the 1990s. Technology advancement and innovation have been limited as well, especially because of a premature shift to trade openness after colonial independence in the 1960s and 1970s. Thus industrialization has not taken root in the region. The industrial base that existed at the time of their independence simply withered in the 1980s and, by the 1990s, clunked out. In short, Africa has not been able to evolve from the same production structure it had in the 1980s; consequently, it has not succeeded in capitalizing on trade. The condition today has become very serious that Africa would need significant support to revive its productive structure. In the mean time, trade contractions in the 2000s, together with the vicious domestic constraints, have generated economic stagnation in Africa.

The figures for Asia in Table 1 are strikingly different to those of other developing regions. For Asia, gross income elasticities due to trade flows suggest encouraging results. The trend has been robust even with trade balance adjustments. Indeed, the figures corroborate the view that Asia has persistently experienced increases in income with trade openness.[5] Thus, at least in Asia, a positive relationship between trade openness and income has been validated.

Asia demonstrates the effectiveness of trade openness for economic progress. Its approach to external engagement, despite its unease with it because of economic crises in the 1990s, has remained viable. This approach has been characterized by domestic protection of strategic industries to drive economic expansion, technology advancement, productivity increase, etc., with the goal of gaining greater trade shares in the world economy. In the process, its productive structure has enjoyed scale economies and succeeded in competing with other regions.

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[5] 10 units increase in trade openness implies 50 units increase in income (or 4.4 per cent of average income in the 2000s); at 15 units, 75 units increase in income (or 6.5 per cent of average income in the 2000s).

Even with the recent shifts in trade flows toward the Asian region, the region has remained steadfast with its external engagement backed by a strategic, even practical, approach to industrial deepening and trade complementarities. It is an approach that has put great importance on continuous innovation, technology advancement, and search of new markets thereby push the productive structure away from atrophy or rigidity due to complacency. Despite on-going changes at the global economy, Asia remains poised to enjoy the positive effects from trade openness.

[Insert Table 1 about Here as Stand Alone Pages]

The results for the Americas are interesting to some extent. First, as in the African experience, the Americas have experienced deteriorations in gross income elasticities due to trade flows. The figures have been poor throughout the period of the study; they are actually worse with the trade balance adjustments. The figures suggest that the region has, on balance, not gained at all from trade openness.[6] In short, a positive relationship between trade openness and income has not been found in the Americas.

Perhaps during the 1980s, as the Americas moved away from import-substitution-inspired strategies of the 1960s and 1970s to a more market-focused approach, there were some gains from trade. Over time, however, the economic adjustments were not sustained partly because of the crises in the 1980s and partly because the adjustments were simply shifts in orientation and not disposition. Still, trade has remained directed to the domestic consumer markets rather than to the world economy, an approach that characterized the strategies of the 1960s and 1970s. There has been no real structural transformation like in the Asian experience. The external engagement has not been able to induce scale economies. Meanwhile, the market-

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[6] 10 units increase in trade openness implies 8 units decrease in income (or 0.3 per cent of average income in the 2000s); at 15 units, 12 units decrease in income (or 0.5 per cent of average income in the 2000s).

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focused approach has undermined the remaining productive structure and institutional capacity. The ensuing poor infrastructure, degraded institutions and organizations, and macroeconomic problems, etc., have in turn accentuated the economic weaknesses of the region. In the end, trade openness has provided avenues for large trade leakages instead of income injections that the Americas fail to achieve robust economic expansions despite greater trade openness.

The gross income elasticities due to trade flows of the industrialized region have been negative in the 1980s to the 2000s. The overall elasticities after adjustments for the trade balance uncover neutral effects of trade openness. In short, it is not easy to confirm a positive relationship between trade openness and income in the industrialized region.

The industrialized region has traditional confronted a weak trade balance with the rest of the world economy. Increases in trade openness in turn have contributed to their trade imbalances. On balance, however, the industrialized region has traded more within rather than with other regions. This trade pattern has come up partly because the developing regions have not been able to absorb trade from the industrialized region and partly because trade within the latter has been complementary. Thus while greater trade within the region has produced adverse effects on incomes elsewhere, it has actually enhanced economic activities within. Technology leadership and innovation have secured their dominant position. Another explanation concerns spillover effects that have come with greater trade. Expansion in the industrialized region has basically induced secondary effects in terms of enhanced domestic linkages, which have sustained long-term factors for economic expansion like productivity growth and agglomeration. In other words, the industrialized region has benefited from trade openness but only through the indirect consequences of trade within the region, which still produces increases in income.

Financial Openness and Income

What is evident in Table 2 is that the developing regions have a common downward trend in gross income elasticities due to financial flows. After adjusting for the net external position,

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the figures suggest that the developing regions have been hurt by financial openness, as the trend reversals into the negative zone suggest.[7] There is therefore evidence to challenge the view of a positive relationship between financial openness and income.

The commonality of experience among the developing regions point to a requisite for successful financial openness: real industrialization and robust economic expansion. The figures for Africa and Asia during the 1980s suggest that an effective application of finance was not hindered by limited financial openness. But limited structural transformations and poor macroeconomic conditions because of weak institutions, infrastructure and organizations, human capital, etc., help explain why Africa and the Americas were unable to take advantage of finance in the 1990s and 2000s. In Africa, the abject domestic conditions repelled finance, including those that were generated within the region. In the end, Africa was burdened by the costs of finance. In the Americas, financial flows were unable to support economic adjustment introduced in the 1980s. In the end, the region did not have the capacity to absorb finance. As these regions de-industrialized, finance was frustrated from supporting economic activities. Of course, the debt crises of the 1980s and the 1990s have had far-reaching consequences on their productive structures. In short, the economic troubles throughout the 1980s to the 2000s explain why financial openness has not contributed to economic progress.

[Insert Table 2 about Here as Stand Alone Page]

Asia is an interesting case. Basically, Table 2 suggests that initially region was able to utilize finance to support economic activities but has now found it increasingly difficult to sustain

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[7] In Africa, 10 units increase in financial openness implies 82 units decrease in income (or 14.2 per cent of average income in the 2000s); at 15 units, 123 units decrease in income (or 21.3 per cent of average income in 2000). In Asia, 10 units increase in financial openness implies 67 units decrease in income (or 5.8 per cent of average income in the 2000s); at 15 units, 100.5 units decrease in income (or 8.8 per cent of average income in the 2000s). In the Americas, 10 units increase in financial openness implies 17 units decrease in income (or 0.6 per cent of average income in the 2000s); at 15 units, 25.5 units decrease in income (or 0.9 per cent of average income in the 2000s).

that ability. Deregulation and financial liberalization programs have accelerated in the 1990s, which explains why financial openness has reduced income. The robust economic expansion in the 1980s and in most of the 1990s was thus the result of a sound capacity to channel finance to support the productive structure. By the 2000s, however, Asia was already constrained from deploying finance, first, because its capacity to do so was weakened with deregulation and financial liberalization and, second, deeper industrialization cannot be had because of the change in the nature of finance. Indeed, the figures suggest that financial openness has led to a serious erosion of income in the region.

Financial openness in the developing regions has encouraged more of liabilities-creating finance instead of wealth-creating finance. With deregulation and liberalization entrenched, the developing regions have been unable to direct the flows into long-term and productive economic activities because short-term and speculative exposures are preferred. Whenever interventions are contemplated to change the direction of the economy, threats of financial pullout have been effective to upset the authorities. The expansion of liabilities, in turn, has undermined financial depth, which has enlarged risks for defaults, thereby enhancing the threats of financial pullout. Meanwhile, the capacity to absorb finance has reduced because the productive structure has deteriorated. It thus becomes clear why financial inflows have flown out quickly from the developing region despite greater financial openness. Of course, successive economic troubles in the 1990s and the 2000s due to financial openness have contributed the reduction of incomes.

For the industrialized region, the gross income elasticities due to financial flows are positive, but small, throughout the period. Incorporating adjustments for net external position, the figures reveal a steady positive trend. The figures confirm the purported relationship between financial openness and incomes, at least for the industrialized region.

One possible explanation for the experience of the industrialized region concerns the nature of financial flows, which have remained concentrated within the region. Financial structures there have already reached maturity that they can accommodate financial innovations

to support economic activities. If unfavorable developments arose elsewhere, financial flows would simply consolidate or regroup into the industrialized region. When stability has been regained, financial flows then reemerge to resume operations. Of course, finance has flowed to the developing regions, but these have on the whole been driven by a search for quick profits that can be drawn into the industrialized region to be deployed on the economic activities of the latter. Moreover, financial flows between the developing and industrialized regions generate adverse effects on incomes in the former so, in the end, finance is drawn back to the latter. There is little prospect for a change in this nature of flows.

Another explanation involves the complementary nature of financial flows within the industrialized region. As noted above, financial flows have reinforced the reapplication of finance to support the enlargement of economic activities in the industrialized region. There are therefore secondary effects from financial flows to the region in the form of enhanced domestic linkages, which help sustain factors like technology advancement, greater productivity, and agglomeration economies. Despite the apparent small effects of financial flows, what is evident is that the industrialized region has enjoyed direct and indirect benefits from financial openness. The sheer momentum effect of a large economy guarantees the continued rise of income in the region.

Domestic Economic Base and Income

In Africa, gross income elasticities due to domestic economic base have dramatically fallen over time. Adjusting for economic openness, the figures in Table 3 reveal that the domestic economic base still has some capacity to support economic activities but not large enough to suggest that it can pull the region up from economic stagnation.[8] Still, the figures indicate that the domestic base can help lessen the negative effects of economic openness on income. There is at least the possibility that a revival of Africa's domestic base would support economic expansion in

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[8] 10 units increase in domestic size implies 19 units increase in income (or 3.3 per cent of average income in the 2000s); at 15 units, 28.5 units increase in income (or 4.9 per cent of average income in the 2000s).

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the region.

Evidently, the small domestic base of Africa has translated into small effects on income. The region is unable to induce large domestic demand. Low income further dampens domestic demand. Poor human capital, complicated by a combination of domestic socio-political factors, has contributed to aggravate an already depressed situation in the region, thus weakening an already weak domestic base. What was left of the domestic base cannot reverse stagnation or overturn the negative effects of economic openness. Meanwhile, emigration has intensified the difficult situation in an emaciated region because those left behind do not have the capacity to generate economic activities. Such problems haunt Africa today and explain why the domestic base has a trivial role in the region. Of course, economic openness has contributed to smash the domestic base.

Asian gross income elasticities due to the domestic size are the largest across regions. Even with adjustments for economic openness, the figures remain large to suggest that the domestic base has an important role in the economic strength of the region.[9] In short, these figures highlight how a robust domestic base cushions any adverse impact from economic openness.

At the least, the findings for Asia support the view that a large domestic base generates large income effects from economic activities supported by, say, scale economies and market size. Fundamentally, the domestic base has to have the capacity to transform potential into actual changes in income. The decreasing trend, however, indicates some problems. Rapid population expansion has strained the capacity of the domestic base. There is a related problem with the provision of infrastructure, which has lagged, if not remained stagnant, after the economic troubles of the 1990s. Robust economic activities limit the strained infrastructure from supporting the domestic base. Institutional and organizational systems have to be upgraded as well to create

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[9] 10 units increase in domestic size implies 71 units increase in income (or 6.2 per cent of average income in the 2000s); at 15 units, 106.5 units increase in income (or 9.2 per cent of average income in the 2000s).

additional space for future expansions. Even if Asia enjoys over the medium term a momentum effect from the existing domestic base, the constraints have strengthened to break it up slowly. Of course, the reduction of the contribution of the domestic base has been subdued by out-migration, which has helped improve the productivity of resources. But it needs to be pointed out that openness has contributed to the deterioration of the domestic base. What is needed for the long-term is a reversal of a tightening domestic capacity through the expansion of infrastructure, improvement of institutions and organizations, improvements in human capital, etc. Meanwhile, the domestic base has enough capacity over the medium term to offset the negative effects of economic openness.

[Insert Table 3 about Here as Stand Alone Page]

For the Americas, gross income elasticities due to the domestic base are found to be small in magnitude. They are smaller after adjustments for economic openness have been included.[10] The intriguing finding is that the Americas have smaller figures than Africa's, suggesting that the domestic base does not drive economic activities in the region.

A small domestic base and subdued domestic demand in a region that is well-off relative to Africa and Asia suggest some serious internal problems. An issue that comes up immediately is the disparity in income distribution. The domestic base has lost its role as a source of domestic demand because of inequality, the impact of which is larger than anywhere among developing regions. Another issue concerns the limited shift from import-substitution-inspired strategies. Economic activities have contributed little because of the inadequate utilization as well as creation of opportunities because the domestic base cannot develop. Economic openness has also restricted the domestic base from playing a more meaningful role in the region. Again, problems

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[10] 10 units increase in domestic size implies 11 units increase in income (or 0.4 per cent of average income in the 2000s); at 15 units, 16.5 units increase in income (or 0.6 per cent of average income in the 2000s).

with infrastructure, institutional and organizational systems, and human capital, etc., enhance the constraints and weaken the domestic base. In the Americas, at least, the domestic base has not delivered sufficient stimulus for economic expansion.

The estimated domestic size elasticities of the industrialized region reveal a steady trend from the 1980s to the 2000s even after adjusting the figures for economic openness. Despite the small figures, they are still sufficient to show that the domestic base generates large increases in income.

The industrialized region has enjoyed a robust domestic base. It strength has been drawn from the solid infrastructural, institutional and organizational systems, and human capital base, etc., which have supported economic activities and economic openness. The synergy between external and internal forces has been important for economic expansion in the region, such that even a small stimulus on the domestic base translates into large effects on income. In the end, an already high level of income is enhanced with further expansions. The synergy has also supported the creation of new economic activities. More importantly, the synergy has enabled the domestic base to accommodate changes in domestic demand and/or economic openness. Table 3 suggests that this scenario is not likely to change in the short- to medium-term as an advanced domestic base generating momentum effects. Diminishing returns, however, can easily occur. Thus stronger economic expansions would be possible in the region if there are discrete additions to infrastructure, institutional and organizational systems, and human capital, etc. What is evident in the industrialized region is that the domestic base has sustained economic expansion to complement economic openness.

Economic Openness and Domestic Economic Base

The next step is to put together overall trade and financial openness with domestic economic base to see their net effect on income. Table 4 suggests that the developing regions have progressively been at the disadvantage with economic openness. Africa has not benefited

from it since the 1990s. Figures for the Americas show that the region has not had positive experience with it since the 1980s. Not surprisingly, Asia has the best results among the regions. The changes in their trends coincide with the dramatic opening of the developing regions as deregulation and liberalization became entrenched. This finding corroborates the view that, in those junctures, openness became an end goal rather than a means to economic expansion. Despite the challenges with openness, the industrialized region basically has gained from it. Table 4 suggests that there is something amiss in the manner by which external engagement has been pursued by the developing regions.

[Insert Table 4 about Here as Stand Alone Page]

The overall economy picture can be obtained by putting together net openness and net domestic economic base. First, Table 4 illustrates how the domestic base can counter some of the adverse effects of openness. But notice that Africa and the Americas have the same downward trend – although the former has a dramatic decline – suggesting that, on balance, there has been an erosion of income in these two regions. Their situations quickly worsen as the domestic base deteriorates. As they pursue aggressive openness, therefore, there are smaller gains to be had. In contrast, the figures for Asia attest to the important role of the domestic base as a counterbalancing force to openness. Even though there has been a decline in the strength of its domestic base, the figures suggest that it continues to function relatively well. Thus economic expansion occurs in Asia despite of openness. Finally, the industrialized region has enjoyed an upward trend in the overall economy precisely because of a solid domestic base and gains from openness.

One conclusion from Table 4 is that the developing regions have experienced reductions in their incomes with aggressive external engagement, while the industrialized region has been able to at least maintain its income. As such, income divergence occurs between the developing

and industrialized regions despite convergence in economic openness. Second, the developing regions have not achieved economic progress through openness alone. In Asia, for instance, the domestic base plays an important role in pulling up income. However, elsewhere in the developing region, the domestic base has fallen back, and consequently it has played a relatively small role in economic expansion. Because the domestic base has weakened or deteriorated, there have been problems in transforming openness into increases in income. Even Asia, where income convergence with the industrialized region has been observed, now finds it increasingly difficult to sustain its robustness because the domestic base has been weakening. The conclusion is that openness does not make increases in income inevitable since economic progress is contingent on the nature of and the prevailing domestic conditions when external engagement is pursued.

PHILIPPINE EXPERIENCE

The Philippines' gross income elasticity due to trade openness is positive throughout the 1980s to the 2000s. Adjusting for trade balance, the figures suggest that the country has gained from trade openness, with moderate increases in magnitudes over time.[11] These figures are comparable to the Asian region. Gross income elasticity due to financial openness is positive but has fallen steadily. After adjustments for net external position, the figures suggest that the country has also gained from financial openness, albeit the magnitudes are small.[12] In short, there has been an encouraging experience with financial openness. These figures contrast those for the Asian region. Lastly, gross income elasticities due to domestic economic base are positive, but after adjustments for gross openness, they reveal a progressively deteriorating domestic base.[13] In short, the problem for the Philippines has been its weak domestic base.

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[11] 10 units increase in trade openness implies 35 units increase in income (or 3.4 per cent of average income in the 2000s); at 15 units, 52.5 units increase in come (or 5.2 per cent of average income in the 2000s).

[12] 10 units increase in financial openness implies 11 units increase in income (or 1.1 per cent of average income in the 2000s); at 15 units, 16.5 units increase in income (or 1.6 per cent of average income in the 2000s).

[13] 10 units increase in domestic size implies 38 units decrease in income (or 3.7 per cent of average income in the 2000s); at 15 units, 57 units decrease in income (or 5.6 per cent of average income in the 2000s).

[Insert Table 5 about Here as Stand Alone Page]

Table 6 combines trade and financial elasticities to see the net openness scenario, and the result is straightforward: the Philippines has had a better experience with external engagement than the Asian region in general. The positive picture, however, is reversed when net openness is combined with net domestic elasticities. The weakened domestic base overwhelms the gain from economic openness, thus pushing the figures into the negative zone starting in the 1990s. Even in the 1980s, the overall economy figures suggest little change in income. Consequently, there has been a progressive deterioration in income in the Philippines.

[Insert Table 6 about Here <u>within</u> Text]

The Philippines has been aggressive with external engagement. Economic openness was pursued starting in the late 1970s, albeit in a stop-and-go manner because of the domestic economic problems in the 1970s and early 1980s. Significant economic opening really began in the late 1980s, and by the 1990s, openness was entrenched as a guiding principle in economic management.

As the country embraced economic openness, it did not institute an industrialization program fundamental to successful external engagement. Instead, a non-interventionist position towards economic management was instituted, making planning a token procedure and lacked vision and direction. There was a profound faith in openness as *the* answer to the developmental problems in the country. In the process, the productive structure was allowed to deteriorate and, in due course, the weakened domestic base was blamed for the economic doldrums and neglected.

Meanwhile, changes were made on the domestic base even as the Philippines disengaged from it. One of these was the rapid reorganization of the economy, shifting the structure from industrial and agriculture activities to services activities. There was also an assault on production

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that, by the 1990s, the productive base was disseminated. This reorganization happened in the context of nascent industrialization, and so the rise of service activities pushed the economy into premature, but permanent, deindustrialization. Rather than pull the domestic base up on the production ladder, the country was made to jump into openness as the easy way out to its underdevelopment even when the requisites for effective external engagement were absent. Naturally, the authorities considered the productive structure as detrimental to economic progress and that it needed to be abolished; still, the withdrawal from the domestic base was not necessary.

Furthermore, the country embarked on aggressive deregulation and liberalization of the domestic base. As in other developing regions, financial openness meant more liabilities-creating rather than asset-creating flows, which contributed to the demolition of the productive structure. Rules on financial flows were relaxed. The authorities in the end did not have control on what funds to allow and where to deploy them. Neither did they have control over outflows. In the end, financial inflows flowed out in a revolving door fashion because the domestic base was unable to absorb the funds. Risks of default thus remained high throughout the 1980s to the 2000s. Likewise, trade flows were relaxed. Initially, easing of import flows was used as a disciplining mechanism against entrenched interests in the domestic base. But, in time, it accelerated the demolition of the productive structure. Precisely because of these developments that economic openness resulted in the hollowing out of the domestic base.

Because economic openness has become the only course to sustain the residual economic activities in the Philippines, the economy naturally gains from openness. Such scenario is not surprising where the domestic base has been destroyed. Unfortunately, the result would be fleeting and not have any impact on structural transformation.

To some degree, economic mismanagement also contributed to the decimation of the domestic base in the Philippines. The persistent tightness of public finance has constrained the authorities from supporting the domestic base. Poor finances have meant that they enjoyed little autonomy in maneuvering resources. Efforts to boost economic activities have been quickly

exhausted. Of course, poor tax collection performance has been an important factor to the difficulty but so, too, the introduction of deregulation and liberalization. At the managerial level, most public officials blindly embrace external engagement and, with no second thoughts, dismiss domestic engagement.

Needless to say, population expansion has compounded the problem in the Philippines. Income disparities have complicated the economic distress. People have been pushed to seek jobs elsewhere and glorified by the authorities as heroes on whom the burden of economic progress has been bestowed. The irony, of course, is that these people were pushed abroad because the domestic base has not produced economic opportunities.

The disintegration of the economy has reached a severe stage that it now requires a serious turnaround in attitudes toward positive domestic re-engagement. Since external engagement was executed by removing constraints on trade and financial flows, the re-introduction of regulations is critical to change the current configuration. Of course, sound management of external engagement is important. The domestic base needs to be rebuilt to avoid the progression of scale diseconomies and the entrenchment of economic stagnation. In the short-term, it is urgent to stop the further shrinkage of the productive structure and income.

The more serious problem in the Philippines is the singular focus of the authorities on economic openness as a goal in itself. Relinquishing their control over the domestic economy has produced the economic malaise in the country. With no viable domestic base, the country is vulnerable to external shocks. With a weak domestic base, there is no countervailing force to the adverse effects of openness. External engagement is presented as the viable option for the country if it wants to achieve economic progress. No doubt, it is an easy route compared to salvaging the domestic base that would require genuine hard work to reverse years of neglect and assault. This rejection makes the authorities culpable for a betrayal of the economic interests of the country and the welfare of the people. Again, the problem for the Philippines is its weak domestic base despite wide-ranging openness.

CONCLUSION

What is the contribution of economic openness and the domestic economy to income? The cross-country results showed that the developing regions experience lower incomes with openness. In fact, Africa and the Americas did not gain from trade and financial openness. Asia initially benefited from trade openness but lost from financial openness, but subsequently lost in both accounts. As such, there is no support for the purported positive relationship between economic openness and income. Only the industrialized region experienced a positive relationship between openness and income.

The cross-country results also showed that domestic economic base played an important role in cushioning the impact of economic openness, in turn supporting economic expansion. In the developing region, this role has weakened over time. In the industrialized region, the domestic base has remained stable.

The results for the Philippines showed that economic openness has increasing benefits to the country. Sadly, its domestic economic base has notably deteriorated to an extent that it has become an economic concern. The country analysis stressed that the deterioration is a consequence of domestic disengagement even as the Philippines embarked on aggressive external engagement. In a way, the country has resorted to external engagement to make up for the domestic weakness. Thus openness is offered as a solution to economic malaise even as it has also contributed to the demolition of the domestic base. If the base is not rebuilt soon, there are serious risks that the Philippines would fall into scale diseconomies and economic stagnation because, even today, the gains from openness are not sufficient to offset the domestic hemorrhage.

There are valuable lessons from the findings of this paper. First, effective regulation of economic openness is very important to a successful external engagement. Trade and financial flows are also opportunities for extend economic activities but they need to support structural transformation, too. Government plays a crucial role in this context especially with regard to

overall economic management to ensure that opportunities are available to trade and finance. It is vital that government has the capacity to address demands for unregulated trade and finance as well as the ability to guide the economy towards a healthy expansion.

Second, economic openness requires more than opening up. Hard work is needed to build the capacity of the domestic economic base in order to be successful in transforming the economic possibilities presented by openness into actual gains in terms of increased incomes. Hard work is also needed to construct the capability of government to discipline trade and finance as well as the domestic base. In short, a robust external engagements demand parallel robust domestic engagements. Regrettably, governments in the developing regions face threats against serious domestic re-engagement. Of course, for some, external engagement is a necessary route because, say, their economies are too small in size to be viable for scale economies and competition. Nevertheless, that state of affairs is not a sufficient reason for serious domestic disengagement. Government needs to be careful not to abandon the domestic base. Domestic rigidities and distortions have to be addressed, for example, in order to ease the creation of domestic capacity and enhancement of external engagement. What the findings suggest is that those that have made the necessary adjustments in their domestic base have turned out to be also the ones who have succeeded the most with openness. In addition, successful external engagement provides a second-stage thrust that reinforces the complementarity of domestic and external engagements.

Third, sustaining the domestic economic base is important; it is needed to support the structural transformation and to maintain a positive experience with economic openness. In due course, solid domestic and external engagements would result in a synergy that, while unique to a particular context, necessary for economic progress. Government has a crucial role in this context, especially in facilitating the process through broad participation and providing the environment conducive for its emergence.

Finally, a robust domestic economic base is indispensable to cushion the negative effects

of economic openness and to, in turn, support the formation of a synergy between domestic and external forces. Government needs to function well – not perfectly though it needs to learn to not repeat the same errors – because it needs to maintain some degree of effectiveness in steering the economy away from economic decay or stagnation. It is for this reason that Asia and the industrialized regions have been able to realize increases in their incomes despite openness, while the Philippines has had the reverse experience because of openness.

Appendix 1: *Basic Regression Results*

Table A: *Cross-country regression using the Two Stage Least Squares procedure*

Dependent variable: GDP per capita	Gloss Flows		Net Flows	
	Coefficient	p-value	Coefficient	p-value
Dummy 1980s	3,901.2	0.000	2,751.6	0.000
Dummy 1990s	7,185.8	0.000	7,355.0	0.000
Dummy 2000s	10,183.8	0.000	9,888.6	0.000
Population	-29.9	0.000	-65.7	0.000
Trade flows	-15.2	0.328	-69.5	0.029
Capital flows	-15.6	0.013	-17.1	0.079
African region	-5,462.1	0.000	-4,697.2	0.000
Asian region	-5,996.7	0.000	-4,932.3	0.000
American region	-1,615.1	0.012	-2,687.9	0.000
Industrialized region	14,701.7	0.000	15,674.8	0.000
Africa*population*1980s	38.0	0.000	76.6	0.000
Africa*population*1990s	25.0	0.003	56.9	0.000
Africa*population*2000s	15.2	0.078	35.5	0.000
Africa*trade flow*1980s	40.4	0.010	57.3	0.661
Africa*trade flow*1990s	15.2	0.361	109.5	0.001
Africa*trade flow*2000s	-5.3	0.764	242.0	0.000
Africa*capital flow*1980s	25.6	0.000	17.2	0.467
Africa*capital flow*1990s	7.9	0.198	30.4	0.002
Africa*capital flow*2000s	-8.1	0.280	49.6	0.000
Africa*trade flow*capital flow*population*1980s	0.0	0.000	0.0	0.000
Africa*trade flow*capital flow*population*1990s	0.0	0.110	0.0	0.000
Africa*trade flow*capital flow*population*2000s	0.0	0.000	0.0	0.000
Asia*population*1980s	34.0	0.000	73.1	0.000
Asia*population*1990s	28.6	0.000	63.0	0.000
Asia*population*2000s	26.2	0.001	58.3	0.000
Asia*trade flows*1980s	60.9	0.000	185.8	0.941
Asia*trade flows*1990s	44.4	0.005	125.1	0.001
Asia*trade flows*2000s	67.5	0.000	222.6	0.000
Asia*capital flows*1980s	10.0	0.218	-24.0	0.033
Asia*capital flows*1990s	-5.5	0.443	31.5	0.002
Asia*capital flows*2000s	-41.9	0.000	74.8	0.000
Asia*trade flow*capital flow*population*1980s	0.0	0.338	0.0	0.000
Asia*trade flow*capital flow*population*1990s	0.0	0.257	0.0	0.112
Asia*trade flow*capital flow*population*2000s	0.0	0.875	0.0	0.000

Table A: *Continued…*

Dependent variable: GDP per capita	Gloss Flows		Net Flows	
	Coefficient	p-value	Coefficient	p-value
Americas*population*1980s	23.5	0.007	72.9	0.000
Americas*population*1990s	13.4	0.127	56.0	0.000
Americas*population*2000s	5.9	0.491	42.6	0.000
Americas*trade flows*1980s	10.8	0.520	101.4	0.023
Americas*trade flows*1990s	-13.3	0.434	146.2	0.000
Americas*trade flows*2000s	-25.4	0.132	118.6	0.032
Americas*capital flows*1980s	11.7	0.083	22.1	0.824
Americas*capital flows*1990s	2.4	0.704	43.4	0.000
Americas*capital flows*2000s	-6.7	0.385	69.7	0.000
Amer.*trade flow*capital flow*population*1980s	0.0	0.604	0.0	0.019
Amer.*trade flow*capital flow*population*1990s	0.0	0.000	0.0	0.000
Amer.*trade flow*capital flow*population*2000s	0.0	0.000	0.0	0.000
Industrialized*population*1980s	13.5	0.145	37.4	0.000
Industrialized*population*1990s	27.4	0.005	58.1	0.000
Industrialized*population*2000s	23.4	0.025	60.0	0.000
Industrialized*trade flows*1980s	-107.9	0.000	618.4	0.000
Industrialized*trade flows*1990s	-53.3	0.046	867.6	0.000
Industrialized*trade flows*2000s	-43.0	0.148	805.1	0.000
Industrialized*capital flows*1980s	31.2	0.002	131.5	0.000
Industrialized*capital flows*1990s	38.9	0.000	114.2	0.000
Industrialized*capital flows*2000s	31.2	0.000	88.4	0.000
Indus.*trade flow*capital flow*population*1980s	0.0	0.000	0.0	0.780
Indus.*trade flow*capital flow*population*1990s	0.0	0,305	0.0	0.942
Indus.*trade flow*capital flow*population*2000s	0.0	0.343	0.0	0.906

Notes: Gross flows results have adj. $R^2 = 0.84$ and net flows results, Adj. $R^2 = 0.88$. Regressions results have White heteroskedastic-consistent errors and covariance. Lagged of control variables were used as instruments. N = 1,775.

Table B: *Philippine regression using the Two Stage Least Squares procedure*

Dependent variable: GDP per capita	Gloss Flows		Net Flows	
	Coefficient	p-value	Coefficient	p-value
Constant	-2,249.4	0.006	-639.1	0.219
Population*1980s	11.9	0.009	6.7	0.004
Population*1990s	18.1	0.000	8.7	0.000
Population*2000s	19.1	0.000	4.6	0.000
Trade flow*1980s	29.9	0.013	-71.8	0.065
Trade flow*1990s	24.7	0.924	-50.5	0.122
Trade flow*2000s	23.7	0.000	-106.7	0.011
Capital flow*1980s	8.0	0.068	0.4	0.867
Capital flow*1990s	7.1	0.084	-8.7	0.076
Capital flow*2000s	3.3	0.217	-11.0	0.081
Trade flow*capital flow*population*1980s	0.0	0.001	0.0	0.096
Trade flow*capital flow*population*1990s	0.0	0.760	0.0	0.244
Trade flow*capital flow*population*2000s	0.0	0.000	0.0	0.007

Notes: Gross flows results have adj. $R^2 = 0.95$ and net flows results, Adj. $R^2 = 0.95$. Regressions results have White heteroskedastic-consistent errors and covariance. Lagged of control variables were used as instruments. N = 25.

Appendix 2: *List of Countries*

Argentina	Ghana	Pakistan
Australia	Greece	Papua New Guinea
Austria	Guatemala	Paraguay
Bangladesh	Haiti	Peru
Belgium	Honduras	Philippines
Benin	India	Portugal
Bolivia	Indonesia	Rwanda
Brazil	Ireland	Senegal
Cameron	Italy	South Africa
Canada	Japan	South Korea
Chile	Kenya	Spain
China PRC	Madagascar	Sri Lanka
Colombia	Malaysia	Sudan
Costa Rica	Mali	Sweden
Cote d'Ivoire	Mexico	Switzerland
Denmark	Morocco	Thailand
Dominican Republic	Mozambique	Togo
Ecuador	Nepal	Tunisia
Egypt	Netherlands	Turkey
El Salvador	New Zealand	Uganda
Ethiopia	Nicaragua	United Kingdom
Finland	Niger	United States
France	Nigeria	Venezuela
Germany	Norway	

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Table 1: *Income Elasticity due to Trade Openness*

Gross Flows Elasticity		Income	Mean	Coefficient	Elasticity
Africa	1980s	476.4	50.3	40.4	4.3
	1990s	521.9	53.0	15.2	1.5
	2000s	576.9	60.3	-5.3	-0.6
Asia	1980s	774.3	51.1	60.9	4.0
	1990s	1,013.3	69.2	44.4	3.0
	2000s	1,146.4	83.9	67.5	4.9
Americas	1980s	1,481.2	43.2	10.8	0.3
	1990s	2,300.4	52.9	-13.3	-0.3
	2000s	2,604.3	62.4	-25.4	-0.6
Industrialized	1980s	12,205.4	60.4	-107.9	-0.5
	1990s	22,502.3	63.5	-53.3	-0.2
	2000s	27,053.7	76.1	-43.0	-0.1
Net Flows Elasticity		Income	Mean	Coefficient	Elasticity
Africa	1980s	476.4	-8.2	57.3	-1.0
	1990s	521.9	-9.3	109.5	-1.9
	2000s	576.9	-8.5	242.0	-3.6
Asia	1980s	774.3	-4.8	185.8	-1.1
	1990s	1,013.3	-2.4	125.1	-0.3
	2000s	1,146.4	0.4	222.6	0.1
Americas	1980s	1,481.2	-2.5	101.4	-0.2
	1990s	2,300.4	-4.9	146.2	-0.3
	2000s	2,604.3	-5.1	118.6	-0.2
Industrialized	1980s	12,205.4	-0.3	618.4	0.0
	1990s	22,502.3	1.5	867.6	0.1
	2000s	27,053.7	2.6	805.1	0.1
Overall Flows Elasticity		Income	Mean	Coefficient	Elasticity
Africa	1980s				3.3
	1990s				-0.4
	2000s				-4.1
Asia	1980s				2.9
	1990s				2.7
	2000s				5.0
Americas	1980s				0.1
	1990s				-0.6
	2000s				-0.8
Industrialized	1980s				-0.5
	1990s				-0.1
	2000s				0.0

Note: Overall elasticity is gross minus net flows elasticities. Calculations of the author. Refer to Appendix 1 for regression results.

Table 2: *Income Elasticity due to Financial Openness*

Gross Flows Elasticity		Income	Mean	Coefficient	Elasticity
Africa	1980s	476.4	91.1	25.6	4.9
	1990s	521.9	135.5	7.9	2.1
	2000s	576.9	134.5	-8.1	-1.9
Asia	1980s	774.3	63.4	10.0	0.8
	1990s	1,013.3	92.0	-5.5	-0.5
	2000s	1,146.4	108.5	-41.9	-4.0
Americas	1980s	1,481.2	102.9	11.7	0.8
	1990s	2,300.4	117.9	2.4	0.1
	2000s	2,604.3	125.3	-6.7	-0.3
Industrialized	1980s	12,205.4	125.2	31.2	0.3
	1990s	22,502.3	208.0	38.9	0.4
	2000s	27,053.7	410.7	31.2	0.5
Net Flows Elasticity		Income	Mean	Coefficient	Elasticity
Africa	1980s	476.4	-66.4	17.2	-2.4
	1990s	521.9	-90.2	30.4	-5.3
	2000s	576.9	-73.7	49.6	-6.3
Asia	1980s	774.3	-35.6	-24.0	1.1
	1990s	1,013.3	-46.0	31.5	-1.4
	2000s	1,146.4	-41.6	74.8	-2.7
Americas	1980s	1,481.2	-60.5	22.1	-0.9
	1990s	2,300.4	-64.1	43.4	-1.2
	2000s	2,604.3	-51.5	69.7	-1.4
Industrialized	1980s	12,205.4	-12.1	131.5	-0.1
	1990s	22,502.3	-11.3	114.2	-0.1
	2000s	27,053.7	-10.0	88.4	0.0
Overall Flows Elasticity		Income	Mean	Coefficient	Elasticity
Africa	1980s				2.5
	1990s				-3.2
	2000s				-8.2
Asia	1980s				1.9
	1990s				-1.9
	2000s				-6.7
Americas	1980s				-0.1
	1990s				-1.1
	2000s				-1.7
Industrialized	1980s				0.2
	1990s				0.3
	2000s				0.4

Note: Overall elasticity is gross minus net flows elasticities. Calculations of the author.
Refer to Appendix 1 for regression results.

Table 3: *Income Elasticity due to Domestic Economy*

Gross Flows Elasticity		Income	Mean	Coefficient	Elasticity
Africa	1980s	476.4	32.9	38.0	2.6
	1990s	521.9	43.8	25.0	2.1
	2000s	576.9	52.7	15.2	1.4
Asia	1980s	774.3	199.0	34.0	8.7
	1990s	1,013.3	220.7	28.6	6.2
	2000s	1,146.4	251.9	26.2	5.8
Americas	1980s	1,481.2	56.7	23.5	0.9
	1990s	2,300.4	69.1	13.4	0.4
	2000s	2,604.3	79.0	5.9	0.2
Industrialized	1980s	12,205.4	124.5	13.5	0.1
	1990s	22,502.3	144.3	27.4	0.2
	2000s	27,053.7	149.4	23.4	0.1
Net Flows Elasticity		Income	Mean	Coefficient	Elasticity
Africa	1980s	476.4	32.9	76.7	5.3
	1990s	521.9	43.8	56.9	4.8
	2000s	576.9	52.7	35.5	3.2
Asia	1980s	774.3	199.0	73.1	18.8
	1990s	1,013.3	220.7	63.0	13.7
	2000s	1,146.4	251.9	58.4	12.8
Americas	1980s	1,481.2	56.7	72.9	2.8
	1990s	2,300.4	69.1	56.0	1.7
	2000s	2,604.3	79.0	42.6	1.3
Industrialized	1980s	12,205.4	124.5	37.4	0.4
	1990s	22,502.3	144.3	58.1	0.4
	2000s	27,053.7	149.4	60.0	0.3
Overall Flows Elasticity		Income	Mean	Coefficient	Elasticity
Africa	1980s				2.7
	1990s				2.7
	2000s				1.9
Asia	1980s				10.0
	1990s				7.5
	2000s				7.1
Americas	1980s				1.9
	1990s				1.3
	2000s				1.1
Industrialized	1980s				0.2
	1990s				0.2
	2000s				0.2

Note: Overall elasticity is net minus gross flows elasticities. Calculations of the author. Refer to Appendix 1 for regression results.

Table 4: *Overall Income Elasticity*

		Africa	Asia	Americas	Industrialized
Overall Openness	1980s	2.9	2.4	0.0	-0.2
	1990s	-1.8	0.4	-0.9	0.1
	2000s	-6.2	-0.8	-1.3	0.2
Overall Domestic	1980s	2.7	10.0	1.9	0.2
	1990s	2.7	7.5	1.3	0.2
	2000s	1.9	7.1	1.1	0.2
Overall Economy	1980s	5.6	12.4	1.9	0.1
	1990s	0.9	7.9	0.4	0.3
	2000s	-4.3	6.2	-0.2	0.4

Note: Overall Openness is average of overall trade and financial openness (see Tables 1 and 2). Overall Domestic is from Table 3. Overall Economy is sum of Overall Openness and Overall Domestic. Calculations of the author.

Table 5: *Income Elasticity due to Openness and Domestic Economy*

		Philippines			
Gross Flows Elasticity		Income	Mean	Coefficient	Elasticity
Trade Openness	1980s	641.8	47.6	29.9	2.2
	1990s	941.1	82.3	24.3	2.1
	2000s	1014.6	107.4	23.7	2.5
Financial Openness	1980s	641.8	96.4	8.0	1.2
	1990s	941.1	112.7	7.1	0.9
	2000s	1014.6	137.4	3.3	0.4
Domestic Economy	1980s	641.8	180.2	11.9	3.3
	1990s	941.1	227.0	18.1	4.4
	2000s	1014.6	263.9	19.1	5.0
Net Flows Elasticity		Income	Mean	Coefficient	Elasticity
Trade Openness	1980s	641.8	-2.0	-71.8	0.2
	1990s	941.1	-7.5	-50.6	0.4
	2000s	1014.6	-9.9	-106.7	1.0
Financial Openness	1980s	641.8	-62.8	0.4	0.0
	1990s	941.1	-57.1	-8.7	0.5
	2000s	1014.6	-62.0	-11.0	0.7
Domestic Economy	1980s	641.8	180.2	6.7	1.9
	1990s	941.1	227.0	8.7	2.1
	2000s	1014.6	263.9	4.6	1.2
Overall Flows Elasticity					Elasticity
Trade Openness	1980s				2.4
	1990s				2.5
	2000s				3.5
Financial Openness	1980s				1.2
	1990s				1.4
	2000s				1.1
Domestic Economy	1980s				-1.5
	1990s				-2.3
	2000s				-3.8

Note: Overall elasticity is gross minus net flows elasticities. Calculations of the author.
Refer to Appendix 1 for regression results.

Table 6: *Overall Income Elasticity*

		Philippines
Overall Openness	1980s	1.8
	1990s	2.0
	2000s	2.3
Overall Domestic	1980s	-1.5
	1990s	-2.3
	2000s	-3.8
Overall Economy	1980s	0.3
	1990s	-0.3
	2000s	-1.4

Note: Overall Openness is average of overall trade and financial openness (see Table 5). Overall Domestic is from Table 5. Overall Economy is sum of Overall Openness and Overall Domestic. Calculations of the author.