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Briefing Paper

**When Rivers Flow Upstream:  
International Capital Movements in the Era of Globalization**

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## EXECUTIVE SUMMARY

This paper examines the direction of international capital flows. It uses a series of different measures to assess the extent to which money is on net flowing into or out of developing countries. It finds that:

- By the most basic measure of capital flows—the current account—money is on net flowing from developing countries to rich countries. Most developing countries are net recipients of capital by this current account measure but because some developing countries are very large exporters of capital the developing world as a whole is a net exporter of capital.

Several developing countries have current account surpluses—the net outflow of money—that are more than 5 percent of their GDP (the equivalent of \$530 billion annually in the United States). By region, only Latin America and South Asia have current account deficits, although Sub-Saharan Africa would also fall into this category if oil-rich Nigeria were excluded.

- Most developing countries have large net outflows of capital income, such as payments of interest and profits, due to past borrowing. The prior lending or investment that was the cause of these payments may have benefited developing countries in previous years, but at present the outflows of capital income represent a drain on the resources available to poor countries.

If capital income flows are taken out of the current account measure, then the size of the net flow of money from poor countries to rich countries becomes even larger. By this measure, only the South Asia region is a net importer of capital, and even in this case only marginally. Developing countries that are net importers of capital by the current account measure, but exporters by this measure that excludes capital income flows, can be seen as analogous to college students who pay interest on student loans while still in school, and end up in a situation where they continue to borrow money, but their interest payments exceed the size of the new loans. The fact that these capital income payments are now larger than the inflow of capital from rich nations, means that developing nations must consume and invest less than they produce each year.

- Payments for intellectual property claims, such as licensing fees and royalties on patents and copyrights—as well as the difference between the prices for these products that prevails under copyright or patent-protected monopolies, and competitive prices—are a further net outflow from developing nations. While these payments are still relatively small, research from the World Bank indicates that they are likely to grow considerably in the future as a result of the TRIPS agreement.

These payments exist primarily because of a power imbalance between rich countries and poor countries. For example, software or recorded music and video material can be reproduced at zero cost over the Internet. However, instead of allowing such costless transactions, rich countries are forcing poorer nations to pay fees by insisting that they apply

U.S. type copyright or patent protections to intellectual products. (Returning to the student analogy, this is comparable to charging students fees for the use of the library, or even for using ideas from library books.) With few exceptions, the current group of rich nations did not honor other nations' copyrights or patents when they were developing nations.

The fact that capital, by all measures, is flowing on aggregate from poor nations to rich nations contradicts how policy makers usually view the world economy. International capital flows are not making it easier for poor countries to finance their development; instead, the direction of capital flows leaves them with fewer resources. The situation will get even worse as TRIPS leads to larger payments for licensing fees and royalties in future years.

Ironically, the countries whose economies have grown most in the last two decades, such as China, South Korea, and Taiwan, are also countries with large current account surpluses. This suggests that flows of capital from rich nations are not necessary for development, even though they may be desirable.

## **WHEN RIVERS FLOW UPSTREAM: INTERNATIONAL CAPITAL MOVEMENTS IN THE ERA OF GLOBALIZATION**

It is a basic proposition in international finance that the direction of world capital flows should be from the developed nations, where capital is plentiful, to the developing nations, where capital is scarce. In principle, capital flows from rich to poor countries should lead to gains for both sides. Developing nations benefit from obtaining the financing needed to build up their capital stock as well as their physical and social infrastructure, allowing them to be more productive in the future. The developed nations benefit by receiving a higher return on their capital, since the scarcity of capital in poor countries should lead to a higher return on investments in poor countries than could be obtained in rich nations.

In this view, the situation of developing countries is similar to that of college students who are expected to borrow to invest in their future. The lender can benefit by making a loan that gets a solid return and the borrower benefits by being able to finance his or her education.

At a more concrete level, it is widely believed that developing countries need capital inflows to allow their populations to sustain minimal levels of consumption while these countries are devoting resources to building up their stocks of physical and human capital. In other words, capital inflows provide countries with the means to consume and invest more goods and services than they produce. This can allow a country, for example, to pull resources out of agriculture and shift them to investment, with the lost food production offset by increased imports.

However, it turns out that the world is more complicated than simple theory suggests. In fact, most developing nations receive, on net, little or no capital from rich nations, and many are large exporters of capital to the rich nations. Interestingly, most of the “success” stories, measured by growth in per capita GDP, fall into this category.

While this information is well known to economists working on development issues, it runs directly counter to arguments often put forward in policy debates. Relatively few policy makers seem aware of the size and direction of capital flows in recent years.

This paper details the direction of net capital flows for developing countries. Using World Bank data, it starts with the standard measure of capital flows—the current account—to determine the extent to which developing countries are net borrowers or lenders to the rest of the world. As noted above, several developing countries, especially those in East Asia, are currently lending large amounts of capital to the rest of the world. In 2000, the developing countries as a group<sup>2</sup> began running a current account surplus for the first time in almost a quarter century.

The paper then focuses on two components of the current account balance: capital income flows and intellectual property claims. The first category includes interest and dividend payments and the latter includes royalty and license fees. Since developing countries tend to have net deficits in both accounts, this implies that they must run large trade surpluses in order to achieve current account surpluses.<sup>3</sup> Returning to the student analogy, this is as if college students

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<sup>2</sup> Countries designated “low and middle income countries” by the World Bank.

<sup>3</sup> Unilateral transfers—primarily foreign aid and money sent to family members by emigrants—are also included in the current account balance, but these transfers tend to be relatively small.

were paying back their loans, in addition to their other school related expenses, before they had even finished their degree.

## SECTION 1: CURRENT ACCOUNT BALANCES

The current account is the basic measure of whether a country is spending more than it is earning. It counts as income earnings from merchandise exports, sales of services, wages of citizens working abroad, capital income from the ownership of foreign assets, private remittances such as money sent home to relatives by emigrants, and foreign aid and other government grants. The outflows on the current account balance mirror these inflows (e.g. spending on imports).

If a country has a current account deficit, it must finance it by a capital inflow from abroad. This can take the form of foreign direct investment in plant and equipment; it can consist of foreign loans to private corporations or the government; or it may entail the foreign purchase of shares of stock or land. In any case, the existence of a current account deficit requires that foreign capital enter the country in some form in order to pay for the shortfall of earnings from abroad. The reverse is true for a country with a current account surplus.

**TABLE 1. CURRENT ACCOUNT BALANCE BY REGION**  
**Low and Middle Income (LMI) Countries**

Region	2000 Current Account Balance (Millions \$)	2000 Current Account Balance (% GDP)
East Asia & Pacific	55,162	3.5%
Europe & Central Asia	16,221	1.8%
Latin America & Caribbean	-45,470	-2.4%
Middle East & North Africa	23,907	5.0%
South Asia	-6,637	-1.1%
Sub-Saharan Africa	458	0.2%
<i>LMI Countries</i>	<i>43,641</i>	<i>0.8%</i>

*Source: World Bank, World Development Indicators. Includes all LMI countries for which the World Bank has current account, net income and GEP figures*

Table 1 shows the current account balance for the major regions of the developing world in the year 2000. As can be seen, all of the regions except Latin America and South Asia had current account surpluses in 2000. The developing countries as a group had a surplus of \$43.6 billion in 2000, the first year since 1976 that they had a current account surplus. Though the amount is fairly modest—0.8 percent of the developing world's GDP—it signals an important shift in the direction of international capital.

The Middle East and North Africa had the largest current account surplus relative to GDP (5.0 percent). This is partly because the price of oil rose significantly in 2000 from extraordinarily low levels in 1999. Since oil exporters in the Middle East and elsewhere had cut back their imports in 1999 to adjust to lower revenues, this meant when that when revenues surged unexpectedly the following year, they outpaced spending on imports.

However, the surge in oil prices explains only part of the surplus for many oil exporters, such as Russia, and it cannot explain the large surpluses run by countries like Malaysia and the Philippines, which are not significant oil exporters. After the Middle East, East Asia was the region running the largest current account surplus, with a surplus equal to 3.5 percent of GDP.

**TABLE 2. CURRENT ACCOUNT BALANCE**  
**Selected Low and Middle Income (LMI) Countries**

<b>Country</b>	<b>2000 Current Account Balance (Millions \$)</b>	<b>Current Account Balance</b>	<b>Net Income</b>	<b>Net Royalties and Licensing Fees</b>	<b>CA Minus Net Income</b>	<b>CA Minus Net Income and Net Royalties and Licensing Fees</b>	<b>GDP</b>	<b>2000 Current Account Balance (% GDP)</b>
Argentina	-8,970	-8,970	-7,482	-445	-1,488	-1,043	284,346	-3.2%
Bangladesh	2	2	-221	-4	223	227	47,106	0.0%
Brazil	-24,632	-24,632	-17,884	-1,289	-6,748	-5,459	593,779	-4.1%
Bulgaria	-701	-701	-321	-6	-380	-374	11,995	-5.8%
Chile	-991	-991	-2,409	58	1,418	1,360	70,546	-1.4%
China	20,518	20,518	-14,666	-1,201	35,185	36,385	1,079,948	1.9%
Egypt, Arab Rep.	-1,171	-1,171	932	-342	-2,103	-1,761	98,782	-1.2%
Ethiopia	-335	-335	-60	-10	-275	-265	6,391	-5.2%
Hungary	-1,328	-1,328	-1,574	-146	246	392	45,633	-2.9%
India	-2,915	-2,915	-3,821	-223	906	1,129	456,990	-0.6%
Indonesia	7,985	7,985	-9,073	-244	17,058	17,302	152,226	5.2%
Jordan	59	59	-27	-14	85	99	8,451	0.7%
Kenya	-238	-238	-133	-70	-105	-35	10,357	-2.3%
Malaysia	8,409	8,409	-7,514	-528	15,923	16,451	89,659	9.4%
Mexico	-17,740	-17,740	-13,124	-365	-4,616	-4,251	580,122	-3.1%
Nigeria	6,961	6,961	-3,289	-66	10,250	10,316	41,085	16.9%
Pakistan	-2,208	-2,208	-2,018	-99	-190	-91	61,623	-3.6%
Paraguay	-299	-299	32	200	-331	-532	7,521	-4.0%
Philippines	8,459	8,459	3,216	-190	5,243	5,433	74,733	11.3%
Poland	-9,997	-9,997	-1,461	-520	-8,536	-8,016	157,585	-6.3%
Russian Federation	42,375	42,375	-10,789	22	53,164	53,142	259,597	16.3%
Saudi Arabia	14,336	14,336	480	0	13,856	13,856	173,287	8.3%
South Africa	-575	-575	-3,140	-80	2,565	2,645	127,928	-0.4%
Thailand	9,313	9,313	-1,381	-701	10,694	11,396	122,283	7.6%
Turkey	-9,819	-9,819	-4,002	-319	-5,817	-5,498	199,267	-4.9%
Vietnam	507	507	-597	-50	1,105	1,155	31,348	1.6%

Source: World Bank, World Development Indicators.

Table 2 shows the current account balances for a selected list of developing countries, including the largest countries and a representative group of other countries within each region. (Appendix Table 1 shows the current account balances for all developing countries for which World Bank data is available.) There is considerable variation within regions. For example, in Sub-Saharan Africa, the current account surplus was primarily a result of Nigeria's \$7.0 billion surplus, derived from oil exports. Most of the other countries on the continent ran current account deficits. Similarly, the current account surplus for Central and Eastern Europe was the result of Russia's huge \$42.4 billion surplus.

On the whole, however, it is clear from Tables 1 and 2 that the notion that developing countries are generally recipients of capital flows is no longer accurate. The developing world as a whole has become a net lender to rich nations, as have most of the biggest developing nations. While many developing nations do have current account deficits—some of them quite large—this situation is no longer representative of the developing world.

## SECTION 2: CAPITAL INCOME FLOWS

The first section examined the current account balances of developing nations, without considering specific types of income flows. This section focuses on the impact of net capital income flows such as interest and dividend payments.<sup>4</sup>

Generally speaking, net capital income flows tend to be positive when a country is a net creditor and negative when a country is a net debtor,<sup>5</sup> though this isn't always true.<sup>6</sup> Similarly, developing countries became net capital exporters in 2000, although their net asset position remains negative due to past borrowing and due to rich countries' past investments in developing country assets.

The fact that most developing nations face capital income outflows makes it even more remarkable that so many have current account surpluses. Developing countries like Indonesia and Nigeria that are making large interest payments on past loans must run even larger trade surpluses in order to achieve current account surpluses. Meanwhile, some countries with current account deficits, such as Chile and Hungary, have deficits only because of interest payments.

Returning to the student analogy, this would be comparable to a situation in which a college student was continuing to take out new student loans, but was paying out an amount of interest on her prior loans that was larger than the size of the new loans. In this situation, the

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<sup>4</sup> We use "net income" as a proxy for "net capital income" because data for net capital income flows is not available for many developing countries. Net income—sometimes called "net factor income"—also includes employee compensation paid to nonresident workers. This, however, is a small share of the total.

<sup>5</sup> It is conventional to speak of countries being net creditors or net debtors, though it is more accurate to refer to a country's net asset position since this measure explicitly includes equity as well as debt.

<sup>6</sup> The United States, for example, has had a negative net asset position since 1988, but had net capital income inflows until a decade later because its overseas investments earned relatively high returns.

loans, on net, are not currently helping her (she is paying out more in interest than she is borrowing), even if they may have benefited her in prior years.

Table 3 shows the current account balance for each of the regions of the developing world, adjusted for capital income flows. By this measure, every region of the developing world except South Asia would have a current account surplus in the absence of capital income flows. The developing world as a whole would have a surplus equal to 2.9 percent of its GDP in the absence of such flows.

**TABLE 3. CURRENT ACCOUNT BALANCE BY REGION, ADJUSTED FOR NET INCOME  
Low and Middle Income (LMI) Countries**

<b>Region</b>	<b>2000 Current Account Balance Minus Net Income (Millions \$)</b>	<b>2000 Current Account Balance Minus Net Income (% GDP)</b>
East Asia & Pacific	85,580	5.5%
Europe & Central Asia	39,355	4.3%
Latin America & Caribbean	5,421	0.3%
Middle East & North Africa	25,181	5.2%
South Asia	-292	0.0%
Sub-Saharan Africa	12,763	4.4%
<i>LMI Countries</i>	<i>168,006</i>	<i>2.9%</i>

*Source: World Bank, World Development Indicators. Includes all LMI countries for which the World Bank has current account, net income and GEP figures*

The current account surplus of the East Asian region would rise even higher, to 5.5 percent of its GDP, without capital income flows. The Latin American region would switch from a modest current account deficit to a modest surplus. The largest impact would be on the heavily indebted Sub-Saharan African region, which currently has a current account surplus equal to 0.2 percent of GDP. In the absence of capital income flows, its surplus would be equal to 4.4 percent of GDP.

Table 4 shows adjusted current account balances for the same list of countries that appeared in Table 2. In all except four countries (Egypt, Paraguay, the Philippines, and Saudi Arabia), the surplus would be larger, or the deficit smaller, in the absence of capital income flows. For several countries, the impact of capital income flows is quite dramatic. For example, Indonesia's current account surplus was equal to 5.2 percent of GDP in 2000. Without capital income flows, its surplus would have been 11.2 percent of GDP.

As Tables 3 and 4 make clear, most of the developing countries that are borrowing money from rich nations would not need to borrow if they did not have to make payments on past borrowing.



**TABLE 4. CURRENT ACCOUNT BALANCE, ADJUSTED FOR NET INCOME**  
**Selected Low and Middle Income (LMI) Countries**

<b>Country</b>	<b>2000 Current Account Balance Minus Net Income (Millions \$)</b>	<b>2000 Current Account Balance Minus Net Income (% GDP)</b>
Argentina	-1,488	-0.5%
Bangladesh	223	0.5%
Brazil	-6,748	-1.1%
Bulgaria	-380	-3.2%
Chile	1,418	2.0%
China	35,185	3.3%
Egypt, Arab Rep.	-2,103	-2.1%
Ethiopia	-275	-4.3%
Hungary	246	0.5%
India	906	0.2%
Indonesia	17,058	11.2%
Jordan	85	1.0%
Kenya	-105	-1.0%
Malaysia	15,923	17.8%
Mexico	-4,616	-0.8%
Nigeria	10,250	24.9%
Pakistan	-190	-0.3%
Paraguay	-331	-4.4%
Philippines	5,243	7.0%
Poland	-8,536	-5.4%
Russian Federation	53,164	20.5%
Saudi Arabia	13,856	8.0%
South Africa	2,565	2.0%
Thailand	10,694	8.7%
Turkey	-5,817	-2.9%
Vietnam	1,105	3.5%

*Source: World Bank, World Development Indicators.*

### **SECTION 3: INTERNATIONAL PROPERTY CLAIMS**

Another drain on developing countries is intellectual property claims. These include such payments as royalty and license fees associated with copyrights and patents, and—an even larger flow—the difference between the prices for these products that prevails under copyright or patent-protected monopolies, and competitive prices. These payments have greatly increased in recent years due to the gradual implementation of the World Trade Organization (WTO) Agreement on Trade-Related Aspects of Intellectual Property (TRIPS). TRIPS requires

developing countries to set minimum standards on international property protections. Since developing nations are net importers of items protected by patents and copyrights, TRIPS will lead to a net outflow of money from developing to developed countries.

The economic rationale for intellectual property protections is that they provide incentives for innovation and creative work.<sup>7</sup> However, from the standpoint of developing countries, these laws can be viewed as arbitrary restrictions, imposed by rich nations, on the flow of knowledge and intellectual products. In principle, once knowledge has come into existence it can be freely used anywhere in the world. The rich nations have created a set of intellectual property protections that allow them to extract money for the use of this knowledge. The specific nature of these rules is arbitrary in the sense that they could either be eliminated altogether or alternatively made even more restrictive (e.g. indefinite patent lives). It is worth noting that the United States did not generally respect foreign patents and copyrights until the latter part of the 19th century, and the practice of applying patent and copyright protection across national borders is a relatively new practice even for rich nations (Chang, 2002, pp 54-58).

Far from resulting from market forces, patents and copyrights are essentially state-sanctioned monopolies. Microsoft, for example, relies on its legal ability to prevent unauthorized users from copying its programs in order to earn licensing fees. If it lacked this legal authority, it would collect no money from the sale or licensing of its software, which can be copied at zero cost. The same applies to companies like Disney and other owners of copyrighted material, such as books and recorded music or movies. In addition, there are a number of products subject to patent protection (pharmaceuticals being the most obvious example), in which a large part of the cost is attributable to the enforcement of the patent, not the cost of producing the product.

The fact that the rich nations were able to impose strong copyright and patent protection on developing nations through TRIPS was not the result of any economic analysis that showed that this protection was optimal either for the developing countries, or the world economy as a whole—in fact no economic analysis of this issue even existed at the time. The provisions of TRIPS simply reflect the fact that the rich nations were strong enough to force developing nations to agree to respect their patents and copyrights. In effect, the rich nations were strong enough to force developing nations to pay for things they could otherwise get for free. Returning to the student analogy, TRIPS can be viewed as comparable to charging students fees for reading library books, or even using ideas from these books in their papers and exams. These fees make the students worse off—since previously they could use the books, and the ideas in them, at no cost.

Since intellectual property claims can be viewed as arbitrary transfers from developing nations to rich nations, it is interesting to see how capital flows have been affected by intellectual property claims in recent years. Table 5 shows the current account balances for our sample of developing countries, after subtracting both capital income flows, as described in the prior section, and net royalty and license fees. It is important to keep in mind that these World Bank figures for royalty and license fees substantially understate the actual cost of intellectual property claims, because they do not include payments for intellectual property embedded in the prices of traded goods such as recorded music or movies, software installed in computers, or prescription

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<sup>7</sup> This is certainly not the only means to this end. A vast amount of innovative and artistic work is supported through university, foundation, or government funding.

drugs. The data is also of poor quality, with missing data for over half of the developing countries.

**TABLE 5. CURRENT ACCOUNT BALANCE, ADJUSTED FOR NET INCOME AND INTELLECTUAL PROPERTY CLAIMS**

**Selected Low and Middle Income (LMI) Countries**

<b>Country</b>	<b>2000 Current Account Balance Minus Net Income and Royalty &amp; License Fees (Millions \$)</b>	<b>2000 Current Account Balance Minus Net Income and Royalty &amp; License Fees (% GDP)</b>
Argentina	-1,043	-0.4%
Bangladesh	227	0.5%
Brazil	-5,459	-0.9%
Bulgaria	-374	-3.1%
Chile	1,360	1.9%
China	36,385	3.4%
Egypt, Arab Rep.	-1,761	-1.8%
Ethiopia	..	..
Hungary	392	0.9%
India	1,129	0.2%
Indonesia	..	..
Jordan	..	..
Kenya	-35	-0.3%
Malaysia	16,451	18.3%
Mexico	-4,251	-0.7%
Nigeria	..	..
Pakistan	..	..
Paraguay	-532	-7.1%
Philippines	5,433	7.3%
Poland	-8,016	-5.1%
Russian Federation	53,142	20.5%
Saudi Arabia	13,856	8.0%
South Africa	2,645	2.1%
Thailand	11,396	9.3%
Turkey	..	..
Vietnam	..	..

*Source: World Bank, World Development Indicators.*

In general, royalty and license fees result in net outflows on the order of 0.2% of GDP for those developing countries for which we have data. In other words, absent intellectual property claims and capital income flows, South Asia would likely join all the other regions of the developing world in being a net capital exporter, even using this very conservative measure.

Furthermore, intellectual property claims are likely to rise, as the TRIPS agreement has yet to be fully implemented in many developing countries. The World Bank has estimated that when fully in force, TRIPS will cost Korea as much as \$15.3 billion annually, which is

equivalent to 3.3 percent of that country's GDP in 2000. This amount is in addition to international property claims that the country was already paying prior to TRIPS.

Of course, Korea is no longer classified as a developing country, and the World Bank estimates of the cost of TRIPS for its sample of developing countries are more modest: South Africa (\$11 million/0.01 percent of GDP), Mexico (\$2.6 billion/0.4 percent), India (\$903 million/0.2 percent), Brazil (\$530 million/0.1 percent) and China (\$5.1 billion/0.5 percent).<sup>8</sup> Nevertheless, payments for intellectual property claims are a real drain on developing countries, and one that would be expected to grow as their national income increases

### **CAPITAL FLOWS AND DEVELOPING COUNTRIES: WHICH WAY DO THEY GO, AND WHY DOES IT MATTER?**

The prior sections show that in recent years capital flows have largely been running from poor countries to rich countries, the opposite of what standard economic theory would predict. This is especially striking because most developing countries have net outflows of interest, profits, royalties and licensing fees. If not for these payments, even more countries would be net capital exporters.

There are several complementary explanations for this phenomenon. First, the United States is running a huge current account deficit. In 2001, the United States' current account deficit was \$445 billion, which substantially exceeded the combined capital exports of the other rich countries. This means that developing nations have helped finance what amounts to a consumption and investment binge by the United States.<sup>9</sup>

A striking feature of the distribution of current account surpluses and deficits among developing countries is that most of the countries that are experiencing high GDP growth have surpluses, and often large surpluses. This is especially true of the East Asian countries, which together have a current account surplus of more than 3.5 percent of GDP. The fact that most of these nations continue to experience rapid GDP growth, in spite of this large outflow of capital, suggests that the availability of capital has not been a major impediment to economic growth.

It appears that these nations are in fact benefiting from having access to the large export market to the United States. Having access to this source of sustained demand appears to offset the negative effects of having capital drained out of the country. This situation runs counter to standard economic views, which treat developing (and developed) countries as primarily supply constrained. Instead, it appears that the major constraint on growth is demand, which for the East Asian countries is currently driven by the United States.

The fact that high-growth countries tend to be export-oriented does not mean that the direction of growth could not be altered so that domestic demand provides the basis for growth. In the future this will almost certainly be the case, even in East Asia, since the United States'

<sup>8</sup> This data is taken from World Bank 2002, Table 5.1.

<sup>9</sup> The US current account deficit is almost certain to be substantially larger in 2002, though final 2002 figures are not yet available.

large current account deficit cannot be sustained indefinitely. While it is beyond the scope of this paper to examine the dynamics of the growth process in developing nations, it is at least worth noting that it does not appear that current account deficits are needed to support growth, nor do surpluses necessarily retard growth.

The final reason why current account surpluses may be associated with GDP growth is that such surpluses allow developing countries to increase their holdings of foreign reserves, thus increasing investor confidence in their currencies and their economies. In the wake of the 1997 East Asian financial crisis, developing nations sought to drastically increase reserve holdings, and several East Asian countries now hold reserves considerably in excess of 20 percent of their GDP. Since most countries tried to run current account surpluses in order to build up reserves in the wake of this crisis, the successful countries were the ones that actually succeeded in running large surpluses. Accumulating and maintaining reserves is costly to developing countries, but in an atmosphere of instability this may be a necessary defense against financial crisis.

In conclusion, it seems fair to say that the patterns of capital flows in the world are not following the path predicted in standard economic theory. This is especially striking given that developing nations face large outflows in the form of interest and profits, as well as increasing royalty and licensing fees. In order to achieve current account surpluses despite these outflows, developing countries are running large trade surpluses, consuming and investing fewer goods and services than they produce. Though this phenomenon runs counter to conventional economic theory, it has provoked surprisingly little attention from policy makers.

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## APPENDIX

**APPENDIX TABLE 1. CURRENT ACCOUNT BALANCE  
Low and Middle Income (LMI) Countries**

Country/Region	2000 Current Account Balance (Millions \$)	Current Account Balance	Net Income	Net Royalties and Licensing Fees	CA Minus Net Income	CA Minus Net Income and Net Royalties and Licensing Fees	GDP	Current Account Balance (% GDP)
<i>East Asia &amp; Pacific</i>	55,162	55,162	-30,416	-2,927	85,580	88,507	1,558,661	3.5%
Cambodia	-19	-19	-52	-5	33	38	3,183	-0.6%
China	20,518	20,518	-14,666	-1,201	35,185	36,385	1,079,948	1.9%
Fiji	17	17	-44	-3	61	64	1,647	1.0%
Indonesia	7,985	7,985	-9,073	-244	17,058	17,302	152,226	5.2%
Malaysia	8,409	8,409	-7,514	-528	15,923	16,451	89,659	9.4%
Papua New Guinea	-8	-8	-305	-6	297	302	3,476	-0.2%
Philippines	8,459	8,459	3,216	-190	5,243	5,433	74,733	11.3%
Thailand	9,313	9,313	-1,381	-701	10,694	11,396	122,283	7.6%
Tonga	-20	-20	-1	0	-19	-19	159	-12.4%
Vietnam	507	507	-597	-50	1,105	1,155	31,348	1.6%
<i>Europe &amp; Central Asia</i>	16,221	16,221	-23,134	-1,880	39,355	41,235	922,607	1.8%
Albania	-156	-156	107	-6	-263	-257	3,752	-4.2%
Armenia	-278	-278	53	-3	-331	-328	1,914	-14.6%
Azerbaijan	-124	-124	-310	-8	186	194	5,269	-2.4%
Belarus	-162	-162	-42	-2	-120	-118	10,408	-1.6%
Bulgaria	-701	-701	-321	-6	-380	-374	11,995	-5.8%
Croatia	-433	-433	-380	-30	-53	-22	19,031	-2.3%
Czech Republic	-2,237	-2,237	-752	-37	-1,485	-1,447	50,777	-4.4%
Estonia	-315	-315	-204	-6	-111	-104	4,969	-6.3%
Georgia	-162	-162	13	-5	-174	-169	3,021	-5.4%
Hungary	-1,328	-1,328	-1,574	-146	246	392	45,633	-2.9%
Kazakhstan	1,074	1,074	-1,179	-11	2,253	2,263	18,258	5.9%
Kyrgyz Republic	-77	-77	-80	0	4	4	1,370	-5.6%
Latvia	-494	-494	24	-10	-519	-509	7,155	-6.9%
Lithuania	-675	-675	-194	-12	-481	-469	11,314	-6.0%
Macedonia, FYR	-107	-107	-45	-3	-62	-59	3,573	-3.0%
Moldova	-126	-126	64	-1	-190	-189	1,289	-9.8%
Poland	-9,997	-9,997	-1,461	-520	-8,536	-8,016	157,585	-6.3%
Romania	-1,359	-1,359	-281	-42	-1,078	-1,036	36,893	-3.7%
Russian Federation	42,375	42,375	-10,789	22	53,164	53,142	259,597	16.3%

Slovak Republic	-694	-694	-355	-42	-339	-297	19,121	-3.6%
Tajikistan	-61	-61	-55	-2	-6	-4	991	-6.2%
Turkey	-9,819	-9,819	-4,002	-319	-5,817	-5,498	199,267	-4.9%
Turkmenistan	412	412	-177	-7	590	597	4,404	9.4%
Ukraine	1,481	1,481	-942	-662	2,423	3,085	31,262	4.7%
Uzbekistan	184	184	-251	-22	435	457	13,760	1.3%
<i>Latin America &amp; Caribbean</i>	<i>-45,470</i>	<i>-45,470</i>	<i>-50,891</i>	<i>-2,171</i>	<i>5,421</i>	<i>7,591</i>	<i>1,918,689</i>	<i>-2.4%</i>
Antigua and Barbuda	-79	-79	-39	0	-40	-40	660	-12.0%
Argentina	-8,970	-8,970	-7,482	-445	-1,488	-1,043	284,346	-3.2%
Barbados	-145	-145	-82	-23	-63	-39	2,600	-5.6%
Belize	-131	-131	-54	-1	-77	-76	773	-16.9%
Bolivia	-464	-464	-225	-4	-240	-236	8,290	-5.6%
Brazil	-24,632	-24,632	-17,884	-1,289	-6,748	-5,459	593,779	-4.1%
Chile	-991	-991	-2,409	58	1,418	1,360	70,546	-1.4%
Colombia	355	355	-2,539	-67	2,894	2,962	83,208	0.4%
Dominica	-69	-69	-37	0	-32	-32	268	-25.7%
Dominican Republic	-1,027	-1,027	-1,041	-31	15	46	19,587	-5.2%
Ecuador	928	928	-1,412	-22	2,340	2,362	13,607	6.8%
El Salvador	-418	-418	-250	-17	-168	-150	13,204	-3.2%
Grenada	-79	-79	-31	-1	-48	-48	407	-19.5%
Guatemala	-1,049	-1,049	-226	-31	-824	-793	19,079	-5.5%
Honduras	-204	-204	-138	-10	-66	-56	5,924	-3.4%
Jamaica	-275	-275	-336	-35	61	96	7,709	-3.6%
Mexico	-17,740	-17,740	-13,124	-365	-4,616	-4,251	580,122	-3.1%
Panama	-933	-933	-612	-16	-321	-305	10,019	-9.3%
Paraguay	-299	-299	32	200	-331	-532	7,521	-4.0%
Peru	-1,628	-1,628	-1,541	-57	-87	-30	53,512	-3.0%
St. Kitts and Nevis	-62	-62	-29	-1	-33	-32	328	-19.0%
St. Lucia	-82	-82	-37	-2	-45	-43	707	-11.7%
St. Vincent and the Grenadines	-26	-26	-20	-1	-6	-5	337	-7.8%
Suriname	32	32	6	-1	26	28	846	3.8%
Uruguay	-593	-593	-176	-11	-417	-406	20,053	-3.0%
Venezuela, RB	13,111	13,111	-1,204	0	14,315	14,315	121,258	10.8%
<i>Middle East &amp; North Africa</i>	<i>23,907</i>	<i>23,907</i>	<i>-1,273</i>	<i>-596</i>	<i>25,181</i>	<i>25,777</i>	<i>481,564</i>	<i>5.0%</i>
Egypt, Arab Rep.	-1,171	-1,171	932	-342	-2,103	-1,761	98,782	-1.2%
Iran, Islamic Rep.	12,645	12,645	-200	0	12,845	12,845	101,562	12.5%
Jordan	59	59	-27	-14	85	99	8,451	0.7%
Lebanon	-3,065	-3,065	932	-26	-3,997	-3,971	16,488	-18.6%
Malta	-524	-524	-149	-6	-375	-369	3,565	-14.7%
Morocco	-475	-475	-873	-172	398	569	33,345	-1.4%
Saudi Arabia	14,336	14,336	480	0	13,856	13,856	173,287	8.3%
Syrian Arab Rep.	1,062	1,062	-879	-28	1,941	1,969	17,327	6.1%
Tunisia	-821	-821	-942	6	120	115	19,462	-4.2%
Yemen, Rep.	1,862	1,862	-548	-15	2,410	2,425	9,294	20.0%
<i>South Asia</i>	<i>-6,637</i>	<i>-6,637</i>	<i>-6,345</i>	<i>-362</i>	<i>-292</i>	<i>71</i>	<i>588,564</i>	<i>-1.1%</i>
Bangladesh	2	2	-221	-4	223	227	47,106	0.0%
Bhutan	-127	-127	11	-1	-137	-137	487	-26.0%



India	-2,915	-2,915	-3,821	-223	906	1,129	456,990	-0.6%
Maldives	-53	-53	-30	-1	-23	-22	556	-9.5%
Nepal	-293	-293	34	-9	-327	-319	5,497	-5.3%
Pakistan	-2,208	-2,208	-2,018	-99	-190	-91	61,623	-3.6%
Sri Lanka	-1,042	-1,042	-299	-26	-743	-717	16,305	-6.4%
<i>Sub-Saharan Africa</i>	<i>458</i>	<i>458</i>	<i>-12,305</i>	<i>-376</i>	<i>12,763</i>	<i>13,139</i>	<i>291,416</i>	<i>0.2%</i>
Angola	719	719	-1,739	-14	2,458	2,472	8,858	8.1%
Benin	-168	-168	-19	-3	-148	-145	2,168	-7.7%
Burkina Faso	-65	-65	-39	-4	-26	-23	2,192	-3.0%
Burundi	-49	-49	-12	-1	-37	-36	679	-7.2%
Cameroon	-153	-153	-593	-14	440	455	8,879	-1.7%
Cape Verde	-91	-91	-12	-1	-79	-78	558	-16.3%
Central African Republic	0	0	-12	-2	12	13	963	0.0%
Chad	-158	-158	-10	-2	-148	-145	1,407	-11.2%
Cote d'Ivoire	-13	-13	-660	-11	647	658	10,593	-0.1%
Eritrea	-208	-208	0	-1	-208	-207	623	-33.4%
Ethiopia	-335	-335	-60	-10	-275	-265	6,391	-5.2%
Gabon	385	385	-699	-8	1,084	1,092	4,932	7.8%
Gambia, The	-48	-48	-5	-1	-44	-43	422	-11.5%
Ghana	-413	-413	-108	-8	-305	-297	4,978	-8.3%
Guinea	-165	-165	-79	-5	-86	-82	3,012	-5.5%
Kenya	-238	-238	-133	-70	-105	-35	10,357	-2.3%
Lesotho	-151	-151	226	12	-378	-389	899	-16.8%
Madagascar	-260	-260	-42	-10	-219	-209	3,878	-6.7%
Malawi	-545	-545	-88	-3	-456	-454	1,707	-31.9%
Mauritania	95	95	-13	-2	108	110	983	9.7%
Mauritius	-33	-33	-28	-1	-5	-4	4,424	-0.8%
Mozambique	-764	-764	-192	-6	-572	-565	3,813	-20.0%
Niger	-168	-168	-15	-3	-153	-150	1,826	-9.2%
Nigeria	6,961	6,961	-3,289	-66	10,250	10,316	41,085	16.9%
Rwanda	-7	-7	-15	-1	9	9	1,794	-0.4%
Senegal	-310	-310	-113	-7	-197	-190	4,371	-7.1%
Seychelles	-60	-60	-15	-1	-45	-44	614	-9.7%
South Africa	-575	-575	-3,140	-80	2,565	2,645	127,928	-0.4%
Sudan	-974	-974	-1,264	0	290	290	11,249	-8.7%
Swaziland	-40	-40	77	-35	-117	-82	1,401	-2.9%
Tanzania	-298	-298	-80	-3	-219	-215	9,027	-3.3%
Uganda	-861	-861	-15	-10	-846	-836	6,170	-13.9%
Zambia	-553	-553	-119	-5	-433	-428	3,239	-17.1%

<i>LMI Countries</i>	<i>43,641</i>	<i>43,641</i>	<i>-124,365</i>	<i>-8,313</i>	<i>168,006</i>	<i>176,319</i>	<i>5,761,501</i>	<i>0.8%</i>
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Source: World Bank, World Development Indicators. List includes all LMI countries for which the World Bank has current account, net income and GDP figures.