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The US Imbalancing Act: Can the Current Account Deficit Continue?

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Diana Farrell
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Alexander Maasry
Sebastian Roemer

Preface

This report is the product of a six-month research project by the McKinsey Global Institute (MGI). The research builds on MGI's previous research in global capital markets, and draws on the unique perspectives of our colleagues who work with financial institutions and companies in the United States and around the world.

Susan Lund, a senior fellow at MGI based in Washington, DC, worked closely with me to provide leadership for the project. The team also included Alexander Maasry and Sebastian Roemer, both MGI fellows. In addition, we would like to recognize the support given by Tim Beacom, a senior analyst at MGI, and Moira Sofronas, a senior analyst at the McKinsey Knowledge Center.

We have benefited enormously from the thoughtful contribution of our academic advisors. Martin N. Baily, an advisor to McKinsey and a senior fellow at the Peterson Institute for International Economics, provided valuable input throughout the project. Richard Cooper, professor of international economics at Harvard University, and Kenneth Rogoff, a professor of public policy and economics at Harvard University, offered insightful comments on the report. William Cline, a senior fellow at the Peterson Institute for International Economics, gave helpful feedback on our economic modeling.

We would also like to thank Janet Bush for her editorial efforts, Rebeca Robboy for leading external communications, and Deadra Henderson for managing report production. Sara Larsen, executive assistant, provided the team with support throughout the project.

Our goal in this report is to provide business leaders and policy makers with a fact-base and insights into one of the most important issues in the world economy today—the growing US current account deficit. As with all MGI projects, this work is independent and has not been commissioned or sponsored by any business, government, or other institution.

Diana Farrell
Director, McKinsey Global Institute
June 2007
San Francisco

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Executive summary

Many economists believe that the United States' current account deficit is on an unsustainable path.[1] Economic alarm bells started ringing in the late 1990s, and yet the deficit has continued to grow unabated.[2] In modern times, no large economy has run a deficit of this size for such a prolonged period of time. This unprecedented situation is now commanding the attention of business leaders, investors, and policy makers around the world.

When the annual US current account deficit reached 3 percent of GDP in 1999, economists warned that the trend was worrisome. In 2006, the annual deficit reached 6.5 percent of GDP–a record $857 billion – thus compounding economists' concerns (Exhibit 1). To fund its chronic deficit, the United States now absorbs a majority of net capital outflows from other regions of the world (Exhibit 2). The total US net foreign debt has swollen to $2.7 trillion, leaving the United States vulnerable to changes in global investors' sentiment. If foreign investors were to lose their appetite for dollar-denominated assets, US interest rates would probably rise substantially, at least in the short run, thus restraining overall economic growth. Many economists and commentators believe a major correction–involving a significant depreciation of the dollar–is looming.

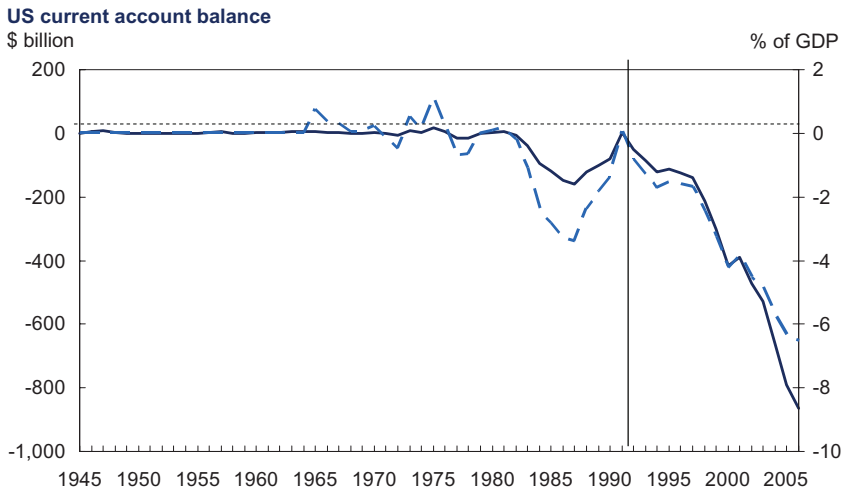
This prompted the McKinsey Global Institute (MGI) to consider the US current account deficit under two very different scenarios over the next five years: the deficit continuing to expand; and the current account coming into balance. On one hand, could the world fund an ever-growing US deficit? On the other, if the

1 For example, see Maurice Obstfeld and Kenneth Rogoff, "The unsustainable US current account position revisited," 2005; Martin Baily, *Dollar Adjustment to Reduce US Imbalance*, 2007; William Cline, *The United States as a Debtor Nation: Risks and Policy Reform*, 2005.

2 Among others, Catherine Mann in *Is the US Trade Deficit Sustainable?*, 1999.

Exhibit 1

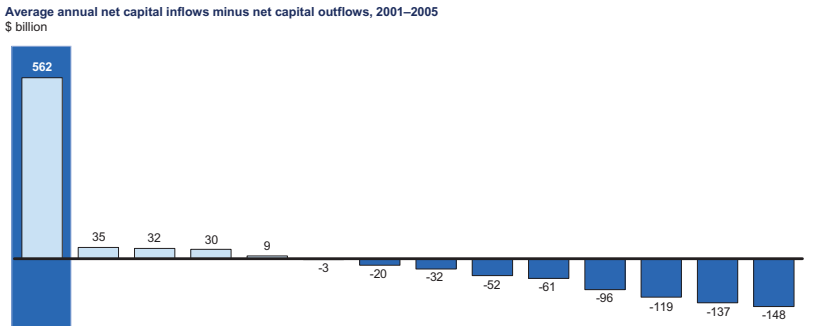
THE US CURRENT ACCOUNT DEFICIT REACHED $857 BILLION OR 6.5 PERCENT OF GDP IN 2006



Source: Bureau of Economic Analysis; International Monetary Fund; Global Insight; McKinsey Global Institute Global Capital Flows Database

Exhibit 2

THE UNITED STATES ABSORBS MOST OF THE WORLD'S NET CAPITAL FLOWS



	United States	Eastern Europe	United Kingdom	Australia -Pacific	Latin America	Africa	Canada	Russia	Middle East	Eurozone	Other Western Europe	Japan	Other Asia	Unattri-buted flows*
% of GDP	5.0	3.5	1.8	4.9	0.4	-1.6	-2.1	-6.6	-5.1	-0.7	-8.9	-2.8	-3.4	N/A

* Total net inflows exceed net outflows by $148 billion due to statistical errors and omissions; some of this could reflect "gray market" money as well as the fact that some countries do not report inflows and outflows.

Source: International Monetary Fund; McKinsey Global Institute Global Capital Flows Database

deficit were eliminated, what would be the impact on the value of the dollar and on US trade patterns? A number of surprising results emerge that challenge conventional wisdom.

We find there is nothing inevitable about a correction in the US current account deficit over the next five years. It could instead continue to grow, and the world would have enough capital to fund it. At current exchange rates, the United States could trim the deficit slightly by increasing service and manufacturing exports—but not enough to reverse its current trajectory. If a large dollar depreciation were to occur, we believe it would more likely be gradual than sudden. Nonetheless, our analysis illustrates how a very large and rapid dollar depreciation could bring the deficit back towards balance with significantly altered trade patterns. Irrespective of whether the adjustment process is gradual or rapid, however, business leaders and policy makers should start considering what a post-devaluation world would mean for them.

THE US CURRENT ACCOUNT DEFICIT COULD CONTINUE TO GROW

Our analysis shows that a correction in the US deficit is neither imminent nor inevitable. Under the current pattern of the US current account, world growth and exchange rates, the US current account deficit would reach $1.6 trillion in 2012, or 9 percent of GDP. For this to happen, however, the current account surpluses of other countries would also have to grow sufficiently large to fund the deficit.We find that under reasonable assumptions, these surpluses would reach $2.1 trillion in 2012, providing the capital required. US net foreign debt would reach 46 percent of GDP, but the United States would still be able to finance the deficit because the implied net foreign interest payments would remain at less than 1 percent of GDP.

That said, there are several scenarios that could limit growth in the global net capital outflows necessary to fund the US deficit. For instance, if China were to increase domestic consumption and reduce its savings significantly, net capital outflows from China—currently a significant source of funding for the US deficit—could fall dramatically. In our model, this would leave the US deficit equivalent to 90 percent of the remaining global net capital outfflows, a figure that is implausibly high. However, we consider this scenario unlikely. MGI's research on China's consumer market shows that although domestic demand will account for a greater share of GDP , its expansion will come largely from growth in incomes and there will be only a slight fall in the national savings rate.[3] Other scenarios, in isolation, would not limit growth in the US deficit.

3 *From "Made in China" to "Sold in China": The Rise of the Chinese Urban Consumer,* McKinsey Global Institute, November 2006.

Neither will the ability of the United States to fund its current account deficit depend on the price of oil. Oil imports are the largest single component of the US trade deficit. However, although a higher oil price increases the value of US imports, it also increases the current account surpluses in oil-exporting economies.[4] This capital is then "recycled" into global financial markets. It doesn't matter whether these petrodollars are invested in Europe or Asia rather than being invested directly in the United States; by increasing the capital available in the global financial system, they still contribute to funding the US current account deficit.

ELIMINATING THE CURRENT ACCOUNT DEFICIT WOULD ENTAIL A LARGE DOLLAR DEPRECIATION

Although our research shows that the US current account deficit could plausibly continue to grow over the next five years, the United States cannot continue to build up foreign liabilities forever. Eventually the deficit will need to stabilize, or even decline, relative to the size of the US economy. A major rebalancing of global demand and a dollar depreciation of historic proportions would be required for this to happen over the next five years.

To balance the US current account by 2012, we find that the dollar would need to depreciate by 30 percent from its January 2007 level. Reducing the deficit to 3 percent of GDP, a level that many economists believe to be sustainable,[5] would require a 23 percent depreciation. Only once over the last 35 years has the dollar depreciated by 30 percent within a five-year period—in 1985–88. However, in 1985 the dollar was at its highest level since 1970, whereas today the dollar is already below its average post-1970 value, and a further 30 percent fall would leave it at its lowest level since 1970.

In the absence of a depreciation in the dollar, we find it likely that the United States could do little more than slow the growth of the deficit. Based on a detailed micro-economic analysis of US exports, our findings suggest that at current exchange rates the United States could potentially increase its share of service and manufacturing exports to other countries by $265 billion and $240 billion respectively. However, this would require either much faster GDP growth in the rest of the world than is currently projected, or the United States to win share of imports from other

4 Improving energy efficiency in the United States could reduce its oil imports and lower the trade deficit. We calculate that the United States could reduce oil imports by 10 percent by 2012 just by implementing technologies available today that improve energy productivity. See chapter 3 for more detail.

5 For instance, see Ahearne, Alan, William Cline, *et al., Global Imbalances: Time for Action,* IIE Policy Brief, Peterson Institute for International Economics, Washington, DC, forthcoming in 2007

countries. Even so, at best this increase would merely hold the US current account deficit to its current level relative to GDP, or 6.5 percent.

If the dollar were to depreciate, a 30 percent decline could play out in different ways, since currencies rarely move evenly against all others. We modeled three depreciation scenarios: first, an even depreciation against all currencies; second, a scenario under which Asian currencies adjust the most; and third, a scenario under which Asian currencies maintain their current value and the adjustment takes place in Europe, Canada and Mexico, and the rest of the world. While the effects of these scenarios differ, a number of changes in trade patterns appear under all three.

AFTER DEPRECIATION, A LARGE US TRADE DEFICIT PERSISTS—PARTICULARLY WITH CHINA

Surprisingly, even if the United States were to balance its current account, it would still continue to run a large trade deficit. Under all three depreciation scenarios, the US trade deficit in goods would stand at around $720 billion in 2012—only slightly smaller than it is today. However, this deficit on merchandise trade would be offset by a $430 billion surplus on trade in services and by positive net foreign-income payments. The latter is due to a turnaround in the US foreign debt position. If current trends were to continue, US net foreign debt would rise to $8.1 trillion in 2012. However, if the dollar were to depreciate by 30 percent, the United States would become a net foreign *creditor* to the tune of $4.8 trillion, generating $435 billion a year in net interest payments to the United States.

Under all depreciation scenarios, the United States would continue to run a large bilateral trade deficit with China. The bilateral deficit was $198 billion in 2005—more than one-quarter of the total US trade deficit. Even if the dollar were to depreciate by 45 percent against the yuan (as it does under our second depreciation scenario), however, the US trade deficit with China would still be $87 billion.[6] The huge cost advantage that China enjoys in producing goods such as toys and clothing means that the yuan would need to appreciate by more than 50 percent to eliminate the US trade deficit with China.

In contrast, US trade with Canada and Mexico—countries often overlooked in the current debate—would improve dramatically. Our model shows that the US trade balance with NAFTA would swing from a deficit of $109 billion to a surplus of

6 Our model assumes that the dollar depreciates against all Asian currencies by the same amount. If the yuan appreciated more than other Asian currencies, some production of low-cost goods could shift, over time, from China to other countries, such as Vietnam or Cambodia. This could reduce the bilateral deficit with China.

$100 billion or more. This would hit the Canadian and Mexican economies hard, and the United States would have to work with them to ease the transition.

SERVICES AND HIGH-TECH EXPORTS SHOW BIGGEST OPPORTUNITY FOR IMPROVEMENT

Although, with a balanced current account, the United States would still have a trade deficit, in the years following a large dollar depreciation US exports across a range of products would increase dramatically. US services exports could increase by 30 percent, or $107 billion, from today's level. Current US trade surpluses in financial services, royalties and licenses, business services, travel, and education would grow dramatically—particularly to Europe, the United Kingdom, Japan, and Canada.

Also receiving a strong boost from depreciation would be US exports of high-tech machinery, such as computers and semiconductors, medical devices, electrical appliances and machinery, office and telecommunications equipment, and farm and construction equipment. Today's $134 billion US trade deficit in this category would turn into a surplus of as much as $51 billion. This growth potential highlights the importance of continued productivity improvements in a sector that not only generates exports directly but also enables the United States to produce other technologically sophisticated products, from surgical equipment to computerized farm machinery.

AN AGENDA FOR BUSINESS LEADERS AND POLICY MAKERS

Although the US current account deficit could possibly be reversed over the next five years and spark a major decline in the value of the dollar, we believe that the adjustment is more likely to be gradual. The world could fund a larger deficit, and a reversal need not be immediate. Capital inflows into the United States have grown continuously despite the deficit, the war in Iraq, the 9/11 terrorist attacks and other adverse events. Fundamentally, the US economy is strong and offers an attractive risk-adjusted return for investors. Nonetheless, business leaders and policy makers should start planning for the possibility that a large dollar fall might unfold more rapidly.

Business leaders would do well to consider how a large decline in the dollar would affect their income statements and balance sheets and what actions they can take today to prepare for this possibility. Our research yields detailed insights into what a post-devaluation world would look like. China, for example, would retain its costs advantage as an export location, but Canada and Mexico

could lose theirs. US companies would see growing foreign demand for many types of financial and business services but, to capture this opportunity, they would have to acquire the requisite language skills and develop products that meet foreign standards. US companies producing computers, semiconductors, medical devices, and construction equipment would benefit disproportionately.

Much of the public debate over the current account deficit, including concern over the bilateral trade deficit with China, is misplaced. There are other more realistic options for balancing the current account deficit, such as improving the US trade balance with NAFTA and with other Asian economies and expanding service and high-tech exports.

The primary policy focus should be on areas offering the United States opportunities to improve its trade balance significantly. Service exports clearly have significant growth potential, and trade negotiators should continue to reduce barriers to global trade in services. The United States must retain the competitive environment necessary for its high-tech sectors to drive innovation and R&D in order to develop the next generation of cutting-edge products. And policy makers should recognize that trade with Canada and Mexico is at least as important as that with Europe and Asia, and consequently they should step up efforts within NAFTA to enhance the area's competitive advantage.

The following chapters discuss these findings in more detail. Chapter 1 profiles the US current account deficit and explores who is funding it. Chapter 2 assesses how large the deficit would be by 2012 if current trends continued, and explores whether the world could plausibly fund an even larger US deficit. In chapter 3 a microeconomic approach is employed to examine the potential for the United States to increase exports of services and manufactured goods without a change in the value of the dollar. Chapter 4 explores scenarios for dollar depreciation to reduce the size of the deficit and their implications for trade patterns. Chapter 5 outlines the opportunities and challenges facing business leaders and policy makers.

1. Understanding the US current account deficit

The United States' record-breaking current account deficit has triggered alarm bells concerning the health of the US economy and the potential risks to the United States and other countries of a sudden reversal in the capital inflows needed to fund it.

Before exploring whether the deficit could continue to grow over the next five years and what factors might reverse the trend, we first assess its components, what has caused the deficit to reach its current size, patterns of foreign investment in the United States, and the different ways in which the US deficit is financed. Readers who are already acquainted with these topics can move on to chapter 2.

THE US CURRENT ACCOUNT DEFICIT

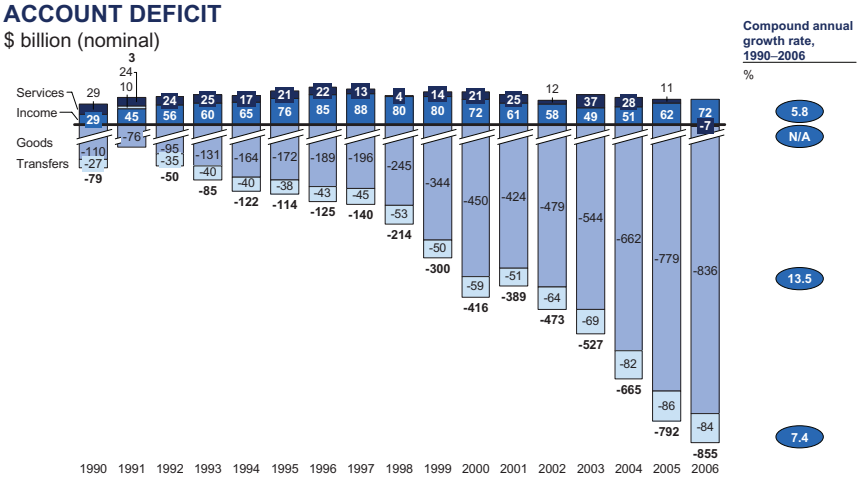
A country's current account is made up of four components: trade in goods, trade in services, transfer payments, and foreign-income payments. In the United States the trade deficit is the largest and fastest-growing part of the overall current account deficit (Exhibit 1.1). Although a great deal of attention is currently focused on the bilateral deficit with China—which is indeed the largest deficit with a single country—the United States runs trade deficits with virtually every region of the world. China accounts for roughly 25 percent of the total deficit. (See Box 1 for more detail on the source of US imports.)

Nations trade in both goods and services. The US trade deficit in goods is enormous. It reached $836 billion in 2006, or more than $2 billion per day. The largest component of this is imported oil and other mineral fuels (Exhibit 1.2). As

Exhibit 1.1

THE TRADE DEFICIT IS THE LARGEST COMPONENT OF THE CURRENT ACCOUNT DEFICIT

$ billion (nominal)



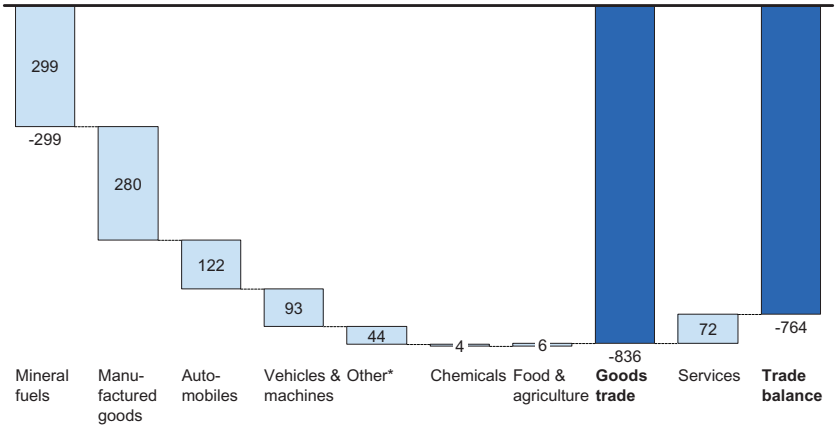
% of nominal GDP	-1.4	0.0	-0.8	-1.3	-1.7	-1.5	-1.6	-1.7	-2.4	-3.2	-4.2	-3.8	-4.5	-4.8	-5.7	-6.3	-6.5

Note: Figure may not sum to 100% due to rounding.
Source: International Monetary Fund; McKinsey Global Institute Global Capital Flows Database

Exhibit 1.2

MINERAL FUELS AND MANUFACTURED GOODS CONTRIBUTE MOST TO THE US TRADE DEFICIT

US trade balance, 2006
$ billion



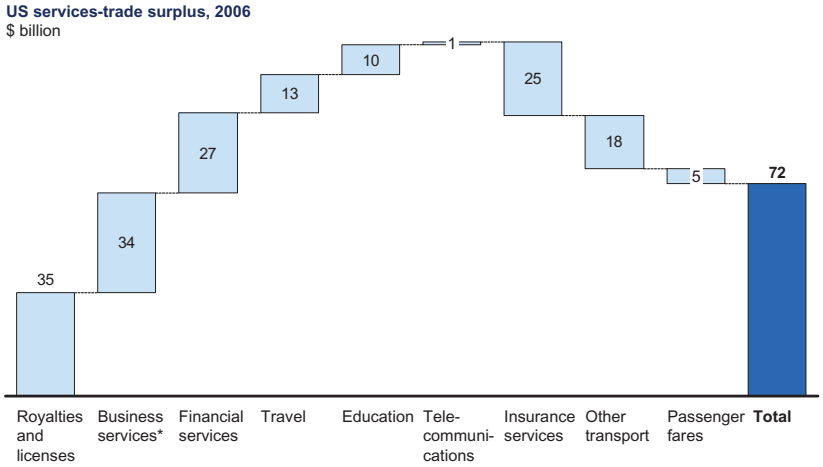
* Includes low-value imports, trade not classified elsewhere, and non-monetary gold and coin.
Source: United States International Trade Commission; McKinsey Global Institute analysis

the price of oil has risen over the last several years this portion of the US trade deficit has soared. Since 2004, growth in the cost of oil imports has accounted for 65 percent of the deterioration in the US trade deficit. The United States also runs large trade deficits in manufactured goods—clothes, plastics, toys, consumer electronics, and furniture—as well as vehicles and machines.

In contrast the United States has consistently run a surplus in services trade over the last 15 years (Exhibit 1.3). However, at $72 billion in 2006, this surplus is very small in comparison to the goods trade deficit. The positive balance in services was composed of surpluses in business professional services, royalties and licenses, and financial services, with deficits in other categories such as insurance and transportation services.

Exhibit 1.3

US SERVICE TRADE SURPLUS IS MAINLY IN BUSINESS SERVICES, ROYALTIES, AND FINANCIAL SERVICES



* Computer and information services, management and consulting services, R&D, operational leasing film and other.

Source: Bureau of Economic Analysis; McKinsey Global Institute analysis

The overall US trade balance improved between November 2006 and February 2007. Over this four-month period the deficit was $16 billion smaller than a year earlier. This was explained primarily by a smaller bill for mineral fuels ($14 billion) reflecting a lower oil price; by contrast, the manufacturing trade deficit continued to grow. The trade deficit with China deteriorated by $15 billion compared with a year earlier but improved with all other regions. It remains to be seen whether or not these improvements continue throughout 2007. Trade flows can be volatile on a month-to-month but an increase in the US trade deficit in March 2007 compared with year earlier gave grounds for caution.

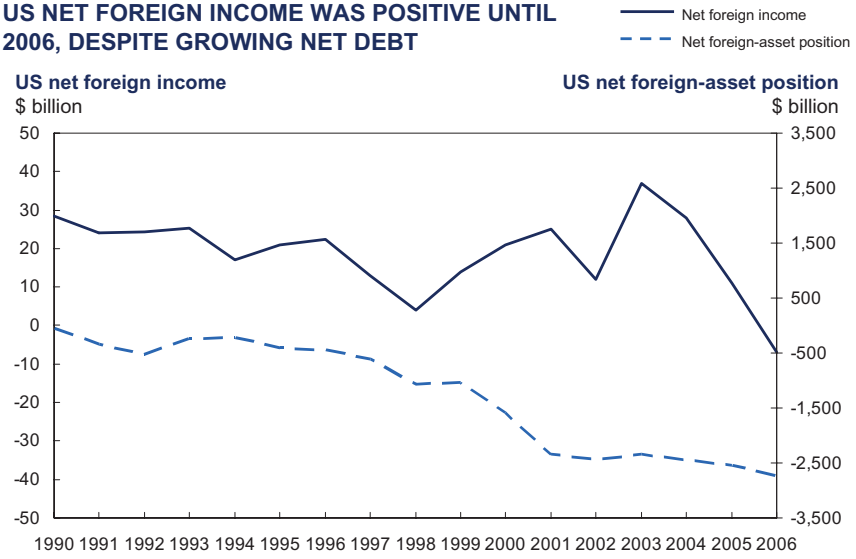
Transfer payments and net income

The second component of the current account is transfer payments. These represent transfers to and from the United States of funds that are not being exchanged for financial assets or goods. The largest types of transfers are remittances—money sent home by immigrant workers—and tax payments to foreign governments by workers in the United States. The US deficit in net transfer payments has grown steadily larger over time, reaching $84 billion in 2006.

The final component of the current account is income payments on foreign investments. These include interest on bond and bank deposits, dividends on stocks, and profits earned by foreign subsidiaries.[1] Every country has both foreign-income payments (money sent abroad on foreign-owned assets within the economy) and foreign-income receipts (money received from foreign assets owned abroad). Traditionally the United States has had positive net foreign-income payments. However, in 2006 the United States experienced negative net income for the first time ever (Exhibit 1.4).

Exhibit 1.4

US NET FOREIGN INCOME WAS POSITIVE UNTIL 2006, DESPITE GROWING NET DEBT



Source: International Monetary Fund; McKinsey Global Institute Global Capital Flows Database; McKinsey Global Institute Cross-Border Investments Database

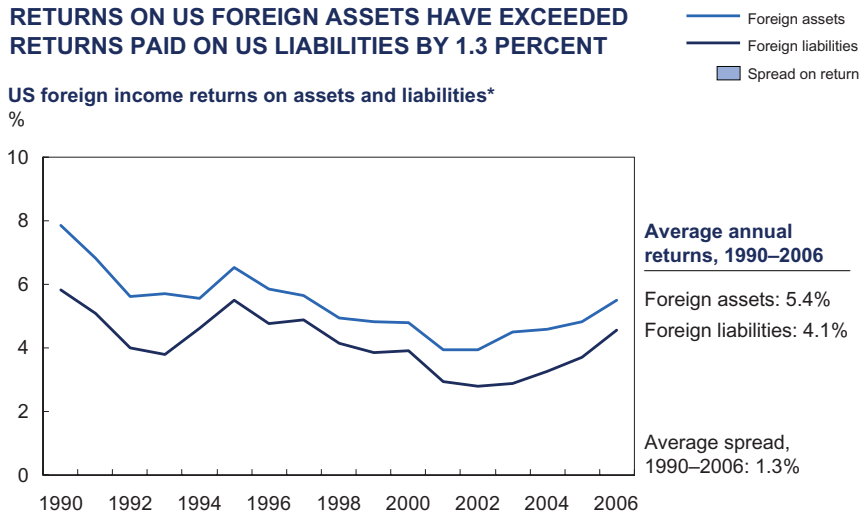
It is astonishing that the United States has been a net foreign debtor to the world since 1986 but has still managed to earn positive net foreign income until last

1 Income earned by subsidiaries abroad is counted as a net income receipt in the current account, whether or not that profit is repatriated to the parent company. If it is reinvested abroad, then it also generates a new FDI outflow.

year. The reason for this highly unusual situation is that the United States has earned a higher rate of return on its investments abroad than foreigners earn in the United States. Since 1990 the difference between the two has averaged 1.3 percent (Exhibit 1.5). However, the true spread is likely to be even larger because foreign-interest payments do not capture unrealized capital gains on equity and foreign direct investments (FDI)—and these make up a larger share of US investments abroad than foreign investments in the United States (Exhibit 1.6).[2]

Exhibit 1.5

RETURNS ON US FOREIGN ASSETS HAVE EXCEEDED RETURNS PAID ON US LIABILITIES BY 1.3 PERCENT



* Calculated from foreign income receipts and payments. Does not include appreciation of value of assets or liabilities.

Source: International Monetary Fund; McKinsey Global Institute Global Capital Flows Database; McKinsey Global Institute Cross-Border Investments Database; McKinsey Global Institute analysis

All in all, the United States obtains a very good deal on its foreign borrowing. In 2006 US net foreign income finally became negative due to the size of the US net foreign debt—now at $2.7 trillion—and to the declining spread on returns of US assets versus liabilities. If the current account deficit were to persist in the years ahead, US net foreign income would deteriorate further as it borrows more each year to finance the deficit.

Who funds the US current account deficit?

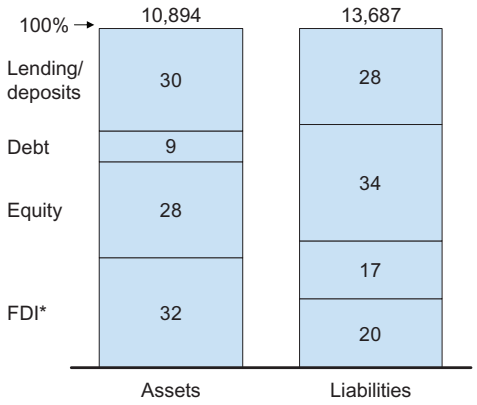
A nation's current account reflects the difference between domestic savings and investment. Any deficit must be funded through borrowing abroad. This shows up in the capital account in the national balance of payments, which reflects the difference between capital inflows into a country and outflows from that

2 In "What explains the US net income balance?" 2007, Alexandra Heath estimates that the real spread on returns of US foreign assets and liabilities has been 4.7 percent.

Exhibit 1.6

US FOREIGN ASSETS ARE MAINLY IN EQUITY AND FDI, WHILE LIABILITIES ARE IN DEBT AND LENDING/DEPOSITS

US foreign assets and liabilities, 2005
%, $ billion



* Foreign direct investment.
Note: Figure may not sum to 100% due to rounding.
Source: International Monetary Fund; McKinsey Global Institute Cross-Border Investments Database

country. In principle the sum of the capital account balance and the current account balance should be zero. However, in practice errors in reporting and statistical discrepancies in data result in differences.[3] In 2006, for instance, the United States had foreign capital inflows of $1,765 billion and capital outflows of $1,046 billion (Exhibit 1.7). This resulted in a capital account surplus of $721 billion compared with a current account deficit of $857 billion. The $136 billion gap was due to errors and omissions.

To understand which countries are funding the US current account deficit, we consider two different perspectives.

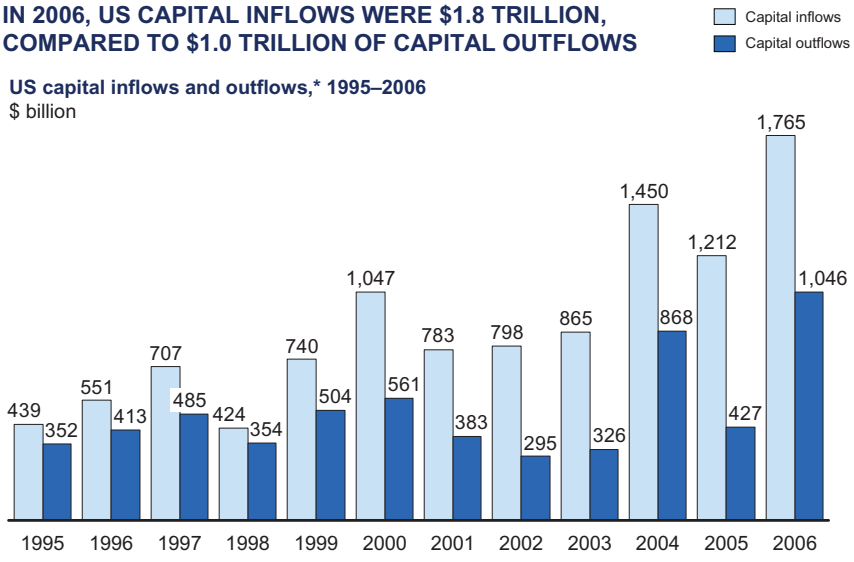
Foreign investment in the United States

In order to understand who is funding the US deficit one must first look at foreign investors in the United States. In 2005 they purchased $1.2 trillion of US assets (equal to US capital inflows). This includes foreign direct investment (FDI) into US companies, purchases of equity, private debt, and government debt securities, foreign lending to the United States, and deposits into US banks and financial institutions (see Box 2 for more detail on capital flows into the United States).

3 Since 2001, the sum of all countries' foreign capital inflows has exceeded reported capital outflows by an average of $148 billion per year.

Exhibit 1.7

IN 2006, US CAPITAL INFLOWS WERE $1.8 TRILLION, COMPARED TO $1.0 TRILLION OF CAPITAL OUTFLOWS



* Includes foreign direct investment, purchases of equity and debt securities, foreign loans and deposits, and foreign reserve asset purchases.

Source: International Monetary Fund; McKinsey Global Institute Global Capital Flows Database

The US Bureau of Economic Analysis collects data on the countries that are the source of these investments. These data do not give an entirely accurate view of foreign investments, however, because some foreign investors use financial intermediaries in the Caribbean, London, and other offshore centers. We develop a methodology to estimate the true source of these funds as described in appendix A.

After adjusting the data we see that Japan and other Asian nations provide the largest source of capital inflows to the United States, averaging $450 billion per year from 2002–05 (Exhibit 1.8). Over the same period the United Kingdom and continental European nations together invested just over $400 billion annually. The remainder of capital inflows came from Canada, the Middle East, and the rest of the world.[4]

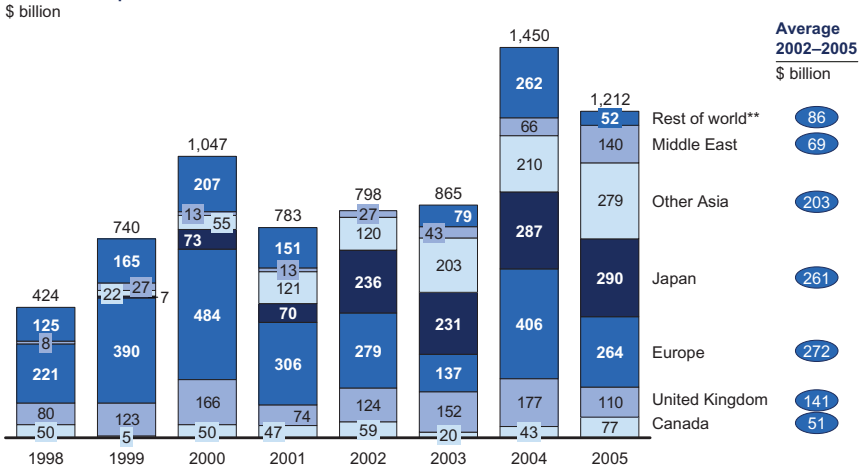
Investors from different regions exhibit preferences for different types of US asset. While two-thirds of Asian investments are in US government debt, Europeans invest a larger portion of their funds in US corporate debt and loans and deposits, while Middle Eastern investors enter US markets through corporate-debt securities, FDI, and deposits into banks and other financial institutions such as private equity funds (Exhibit 1.9).

4 Most of the money we attribute to the "rest of the world" was channeled through Caribbean nations. Some of this money may, in fact, have originated in the Middle East, Europe, Asia, or even the United States itself.

Exhibit 1.8

ASIA HAS BEEN THE LARGEST SOURCE OF CAPITAL INFLOWS TO THE UNITED STATES SINCE 2002

US bilateral capital inflows*
$ billion



* After attributing funds channeled through the UK, Caribbean and Switzerland back to their original source. Bilateral capital inflows do not match total capital inflows due to statistical discrepancy.

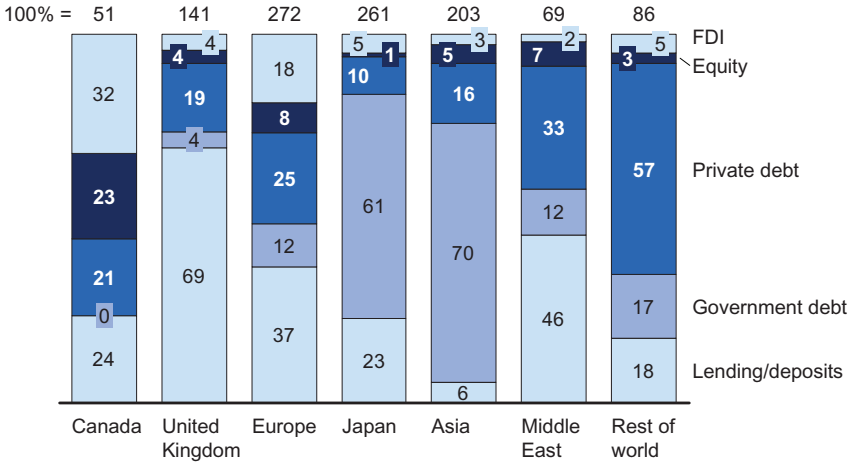
** Includes Latin America, Africa, and unattributed flows.

Source: Bureau of Economic Analysis; US Treasury Department; McKinsey Global Institute analysis

Exhibit 1.9

FOREIGN INVESTORS FROM EACH REGION BUY DIFFERENT TYPES OF US ASSETS

Inflows to the US by region, 2002–2005 average
%, $ billion



Source: Bureau of Economic Analysis; US Treasury Department; McKinsey Global Institute analysis

This picture of foreign investment in the United States does not, however, reveal the whole story about who is funding the US current account deficit. Although many European investors are buying US equities and bonds, their countries may, in fact, be running current account deficits themselves. The United Kingdom, for instance, has invested an average of $141 billion in the United States from 2002–05 while at the same time running its own current account deficit. This meant that the United Kingdom was a net importer of capital from the world during this period.

Countries with current account surpluses

The ultimate answer as to who is funding the US current account deficit is countries with current account surpluses. Even if these countries do not invest directly in the United States, their surpluses add to global liquidity and their capital outflows filter through global financial markets, ultimately enabling capital inflows to countries running current account deficits.

Western Europe, Asia, and the oil-exporting economies are the main sources of current account surpluses in the world today. In 2006 net capital outflows from these countries—capital outflows minus their capital inflows—reached $1.3 trillion (Exhibit 1.10).[5] Oil exporters including the Middle East, Norway, Russia, Nigeria, and Venezuela had the largest share ($484 billion), followed by East Asia ($446 billion) and Western Europe ($308 billion).

The world's net suppliers of capital have shifted over time. Petrodollars from oil-exporting nations are a new and growing provider of the capital to the world as a result of the increased price of oil in recent years. Over the past 15 years it was East Asia that was the largest provider of capital to the world. During the 1990s the net capital outflows from East Asia came largely from Japan. However, since the financial crises of 1997–98 many other Asian countries have started to run current account surpluses and are today major providers of capital.

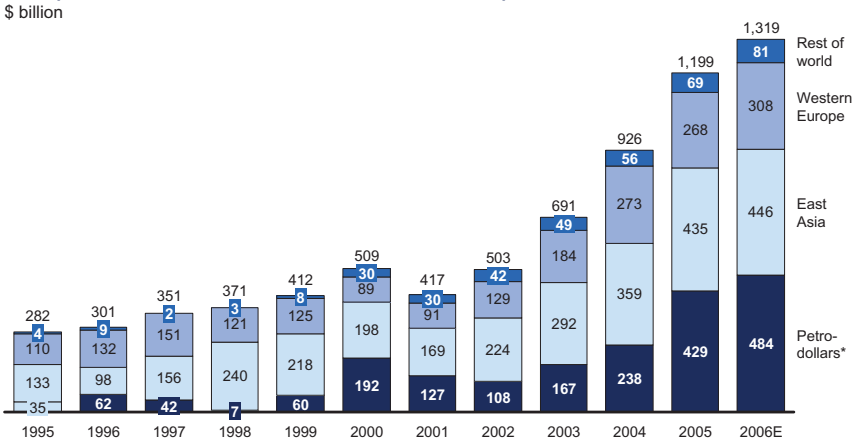
Some countries in Western Europe have also been large net exporters of capital over the last 15 years, including Germany, Switzerland, and the Netherlands. Unlike Asia, where capital outflows are largely in the form of foreign-reserve assets owned by central banks, European capital outflows come mainly from the private sector and have been invested broadly across debt and equity classes. Many other countries in Western Europe run current account deficits, notably Spain, Ireland, Greece, and Portugal. Within the eurozone some of the capital

5 This is equal to the size of their current account surpluses, except for errors and omissions, debt forgiveness, and other capital transfers.

Exhibit 1.10

ASIA, EUROPE, AND THE OIL ECONOMIES ARE THE WORLD'S NET CAPITAL EXPORTERS

Net capital outflows from countries with current account surpluses
$ billion



Note: Only includes countries in any given year with a current account surplus/capital account deficit.
* Includes Algeria, Indonesia, Iran, Nigeria, Norway, Kuwait, Libya, Russia, Saudi Arabia, Syria, United Arab Emirates, Venezuela and Yemen.
Source: International Monetary Fund; Global Insight; McKinsey Global Institute Global Capital Flows Database

outflows from surplus countries have undoubtedly gone to other countries within the monetary union.

At $864 billion, the US current account deficit is now equal to nearly 70 percent of the net capital outflows from countries with current account surpluses.[6] This very high proportion is historically unprecedented over the last 35 years (Exhibit 1.11).

How foreign capital inflows benefit the United States

Running a current account deficit allows the United States to consume more than it otherwise could while maintaining a high investment rate. It also keeps interest rates lower than they might have been in the absence of these capital flows. Academic researchers have confirmed that foreign capital inflows into the United States have lowered interest rates.[7]

The downside of the US current account deficit is that the United States is running up a large foreign debt. As in any household, a deficit allows a country

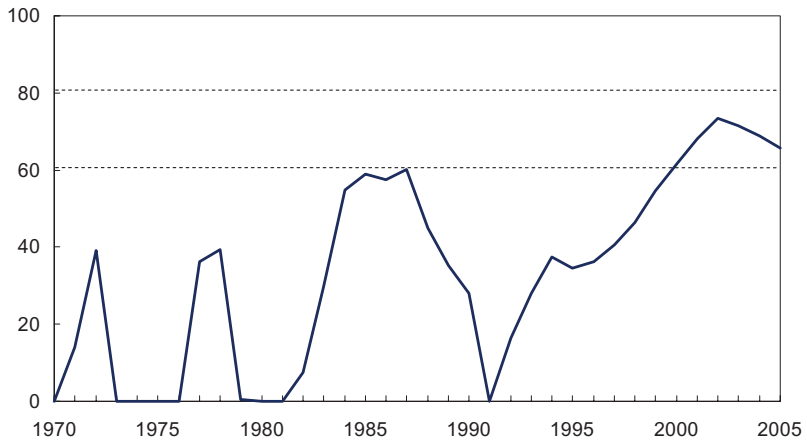
6 In MGI's report *Mapping Global Capital Flows: Third Annual Update*, we report that the US absorbs 85 percent of the world's net capital flows. The reason for this discrepancy is that, in that analysis, we looked at the current account positions of regions rather than countries. This produces a smaller figure for global net capital flows, since some regions—notably Europe—have both countries with current account surpluses and countries with deficits that cancel each other out.

7 For example, Francis Warnock in "How might a disorderly resolution of global imbalances affect global wealth?" 2006, or Francis Warnock and Veronica Cacdac Warnock, "International capital flows and interest rates," September 2006.

Exhibit 1.11

THE UNITED STATES HAS ABSORBED ~70 PERCENT OF NET GLOBAL CAPITAL FLOWS SINCE 2001

US current account deficit as % of global net capital outflows, 1970–2005



* Line shows value of US current account deficit divided by the sum of net capital outflows minus inflows for countries with a current account surplus in that year.

Source: International Monetary Fund; McKinsey Global Institute Global Capital Flows Database

to shift consumption from the future to the present—but creates liabilities that need to be paid later. Interestingly, however, the US net debt position has not deteriorated as quickly as the sum of these cumulative current account deficits would normally indicate. Since 2002 the US net debt position has risen by only $275 billion while the current account deficits over the period totaled $2,848 billion. This is because US foreign assets have appreciated in value at a higher rate than foreign liabilities due to a small decline in the dollar over the period, higher returns on foreign than US stock markets, and very high returns earned by US companies on their foreign investments abroad. Overall then, the United States has found a way to consume more than it otherwise could—and to do so relatively cheaply.

Running a persistent current account deficit also risks affecting adversely the mix of jobs available in the economy. While running a deficit, the United States is exporting less and importing more than it otherwise would. Where jobs in tradable sectors such as manufacturing, automotive, and high-tech are well-paid or otherwise desirable, the risk is that the quality of these jobs erodes. This may partly explain why, even at a time of full employment, many US workers still express concern about offshoring and trade.

Finally, running a current account deficit requires the United States to attract foreign capital inflows each year. If capital inflows were to experience a sudden

stop, or even if foreign investors had less appetite for dollar assets in coming years, the United States could potentially see interest rates rise and economic growth slow down.

What has caused the US current account deficit to grow?

Several explanations have been offered for the growth in the United States current account deficit, and each contributes a part of the story. One explanation is that the United States spends too much and saves too little. A current account deficit represents the gap between what a country saves and what it invests. While US private and government investment rates have been relatively stable over the past decade, the national savings rate has decreased. US corporations have maintained healthy savings rates, but the US household savings rate has fallen by 5–6 percent over the past 15 years as consumers have gained greater access to all kinds of credit products—credit cards, car financing, mortgages, home equity loans, and student loans. In addition, the large government fiscal deficits of recent years have caused government saving to turn negative, further lowering the national savings rate. A low level of domestic savings has allowed the United States to consume more than it otherwise would. By running a current account deficit, the United States has generated enormous demand, offering other countries opportunities to export.

An alternative explanation, famously asserted by chairman of the US Federal Reserve Benjamin Bernanke, is that a "global savings glut" has caused foreign investments to flow into the United States.[8] This has caused the dollar and other asset prices to rise, allowing the United States to run a current account deficit. Despite the relatively low interest paid to foreigners, the United States offers an attractive risk-return profile. It has robust GDP- and productivity-growth rates for a mature economy; deep and liquid financial markets with strong creditor and shareholder rights; a stable macroeconomic environment; and a currency that has de facto been the global reserve currency and has provided a safe store of value. One estimate has capital inflows to the United States in recent years amounting roughly to 10–15 percent of foreign savings—about the allocation to dollar assets that one might expect.[9]

A final explanation is that the growth in the US current account deficit is a natural consequence of the integration of world financial markets. This process has started to sever the link between domestic savings and investment, allowing

8 Benjamin Bernanke makes this point in *The Global Savings Glut and the US Current Account Deficit,* 2005; and in *Financial Regulation and the Invisible Hand*, April 11, 2007.

9 This estimate appears in Richard Cooper, *Living with Global Imbalances: A Contrarian View*, 2005.

many more companies and households to invest abroad. The corollary of this is that more countries than ever before are running larger current account deficits and surpluses.[10]

A related factor is the impact of globalization of industries. As companies expand into foreign markets and restructure their operations internationally, they trade goods and services with their foreign subsidiaries. Such transactions are counted as imports and exports even though these subsidiaries are owned by parent companies within the country. Theoretically the sum of these foreign-affiliate imports and exports could balance out. However, in the case of the United States, whose companies are expanding abroad more quickly than foreign companies are expanding in the United States, previous MGI research has found that trade with foreign affiliates accounted for one-third of the US current account deficit in 2004.[11]

These explanations are complementary, and all play a part in the rise in the US current account deficit to its present level.

10 Although there is still a strong correlation between domestic savings and investment for large economies, it has eroded over the last ten years for smaller countries. See Martin Feldstein, "Monetary policy in a changing international environment: The role of capital flows," 2005.

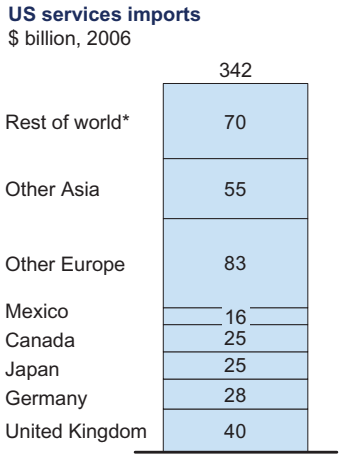
11 Farrell, Diana, Sacha Ghai, and Tim Shavers, "A silver lining in the United States trade deficit," 2005.

A closer look at US imports

The United States imported $2.2 trillion of goods and services in 2006. Of this, $342 billion was in services and $1,845 billion was in goods. The US International Trade Commission tracks the source of these imports to the United States. In 2006, the United Kingdom, Germany, Japan, and Canada were the top four sources of service imports (Exhibit 1.12). The story for goods imports is somewhat different. Here, the largest sources of US goods imported were Canada ($303 billion), China ($287 billion), Mexico ($197 billion), and Japan ($148 billion).

Exhibit 1.12

THE UNITED KINGDOM AND GERMANY ARE THE LARGEST SOURCE OF SERVICE IMPORTS TO THE UNITED STATES



* Includes Latin America, Caribbean, Middle East, Africa and unattributed services imports.
Source: Bureau of Economic Analysis; McKinsey Global Institute analysis

However, this picture of the source of US goods imports is somewhat skewed. Countries often import components of the goods that they export. Previous MGI research has shown, for instance, that as much as 70 percent of the value of Mexico's electronics exports comprises imported components and other inputs from elsewhere in world.[12] Thus, to understand precisely how much the United States imports from each country, the value added of goods should be attributed back to its original source.

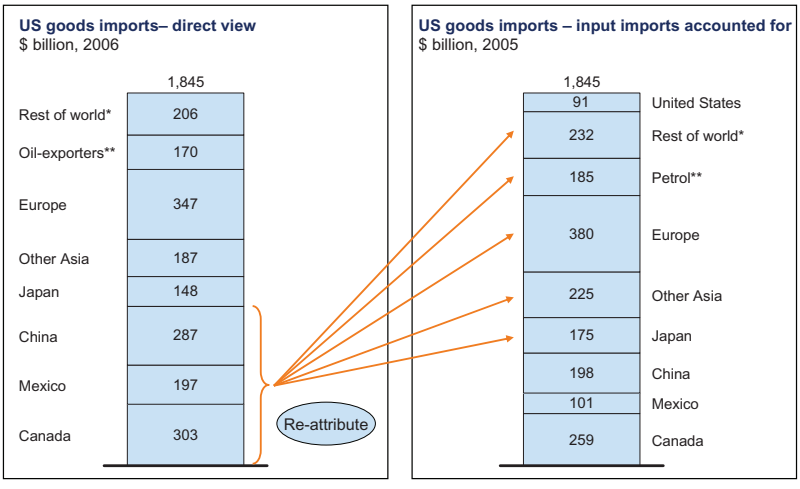
12 Farrell, Diana et al., *New Horizons: Multinational Company Investment in Developing Economies,* McKinsey Global Institute, October 2003.

MGI looked at the United States' three largest trading partners in goods—Canada, China, and Mexico—to develop a better picture of bilateral imports into the United States. We chose the top three because Canada is the largest and thus the most important trading partner, and because we often think of China and Mexico as "assembly locations" with factories assembling imported components for export. For these three countries, we determined what percentage of their exports to the United States, on average, were due to imported inputs. We then attributed the value of those imported inputs to an estimate of their original source. See appendix A for more detail on the methodology.

After making this adjustment, we see that while Canada remains the single largest source of imports to the United States, Japan surpasses Mexico and becomes nearly as large as China (Exhibit 1.13). Europe's share of US imports increases as well. Finally, we see that the United States itself accounts for nearly $100 billion of imports. This reflects the trend for US companies to set up offshore production facilities, particularly in Mexico and Canada. Parent companies often send components and other services to their foreign subsidiaries, and then import finished goods back into the United States.

Exhibit 1.13

MEXICO AND CHINA CONTRIBUTE LESS TO US IMPORTS WHEN ACCOUNTING FOR THE VALUE OF IMPORTED COMPONENTS



* Includes Latin America, Caribbean, Africa, non-oil exporting Middle East and unattributed imports.

** Includes Algeria, Indonesia, Iraq, Iran, Nigeria, Norway, Kuwait, Libya, Oman, Russia, Saudi Arabia, Syria, United Arab Emirates, Venezuela and Yemen.

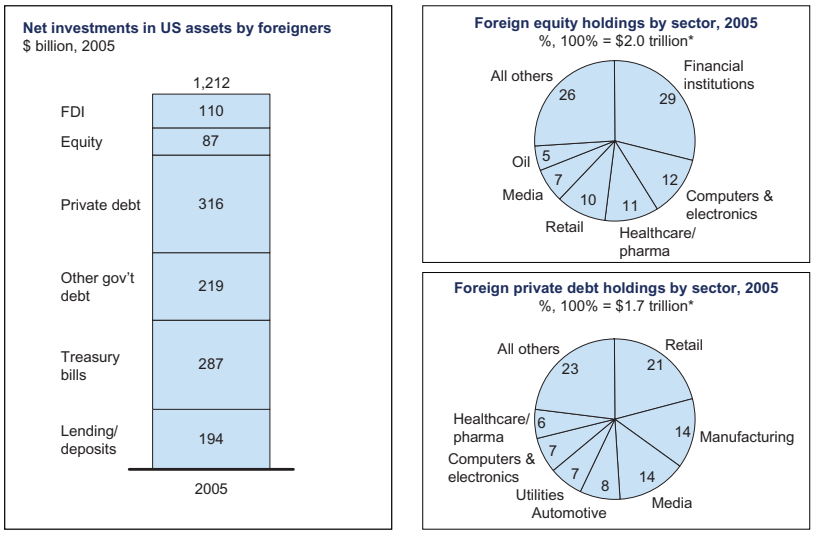
Source: Bureau of Economic Analysis; McKinsey Global Institute analysis

A closer look at US capital inflows

The majority of foreign capital inflows into the United States today is invested in debt securities. In 2005 foreign purchases of US bonds amounted to $822 billion. Of this $316 billion went into corporate bonds while $506 billion went into treasury bills and other government bonds. Foreign investors have their largest debt holdings in US retail, manufacturing, and media companies (Exhibit 1.14). If we compare the size of these holdings with the entire debt issued by S&P 500 companies, we find that foreign holdings are disproportionately high in media, chemicals, computers, and retail while they are disproportionately low in automotive, oil, and telecom.

Exhibit 1.14

THE MAJORITY OF FOREIGN CAPITAL INFLOWS TO THE UNITED STATES IS INVESTED IN DEBT SECURITIES



Note: Numbers do not sum due to rounding.
Source: International Monetary Fund; US Treasury; McKinsey Global Institute Global Capital Flows Database

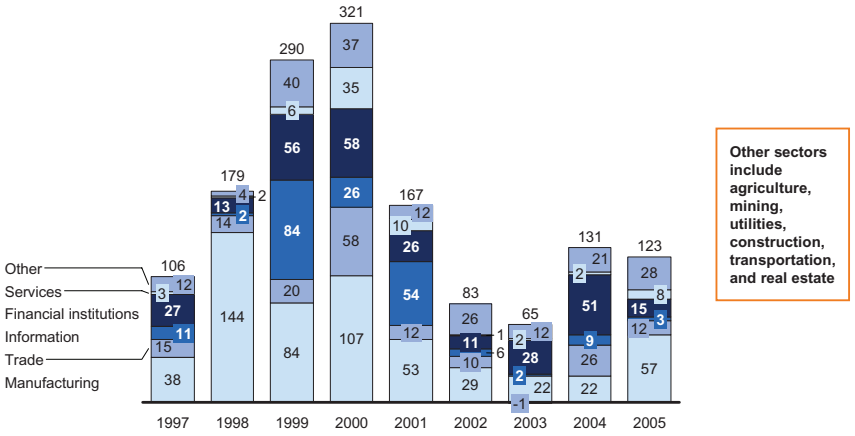
Equity investments into the United States, including purchases of equity shares and FDI into companies, totaled $197 billion in 2005. Foreign purchases of equity shares have been concentrated in financial institutions, computers and electronics, and health care. FDI has been most prominent in manufacturing and, more recently, in financial institutions (Exhibit 1.15). Equity investments benefit the United States in many ways. They have created 5 million jobs over the past 20 years; they have provided $27 billion for research and development and $112 billion in private-sector capital investment; they account for roughly 20 percent of US exports; and they account for 6 percent of US private-sector

labor compensation at an average compensation level 31 percent higher than the national average.[13]

Exhibit 1.15

FOREIGN DIRECT INVESTMENT IN THE UNITED STATES IS DIVERSIFIED ACROSS SECTORS

FDI inflows to the United States by sector
$ billion



Other sectors include agriculture, mining, utilities, construction, transportation, and real estate

Source: Bureau of Economic Analysis; International Monetary Fund; McKinsey Global Institute Global Capital Flows Database; McKinsey Global Institute analysis

13 Matthew J. Slaughter, *Insourcing Jobs: Making the Global Economy Work for America*, Organization for International Investment, Washington, DC, October 2004.

2. Could the world fund a larger US current account deficit?

For many years now economists and policy makers have been saying that the US current account deficit is unsustainably large—and yet it has continued to grow. This prompted MGI to analyze whether the US current account deficit could continue to increase further over the next five years. If current trends persisted, how large would it become? Would there be enough global capital to fund a larger US deficit? Would the implied US net foreign-debt position be sustainable?

We consider it plausible that the US current account deficit could continue to grow for another five years. If current trends were to continue, we find that the US current account deficit would reach $1.6 trillion or 9 percent of GDP in 2012. Although this is very large, we find that under most scenarios a deficit of this size would be quite possible. Current account surpluses in other countries could conceivably grow large enough to fund a US deficit of this size, and the resulting level of US foreign debt would still be manageable. In this chapter we also consider a variety of downside scenarios that could limit growth in the current account surpluses in other countries necessary to fund a larger US deficit.

US DEFICIT WOULD REACH $1.6 TRILLION IN 2012 UNDER CURRENT TRENDS

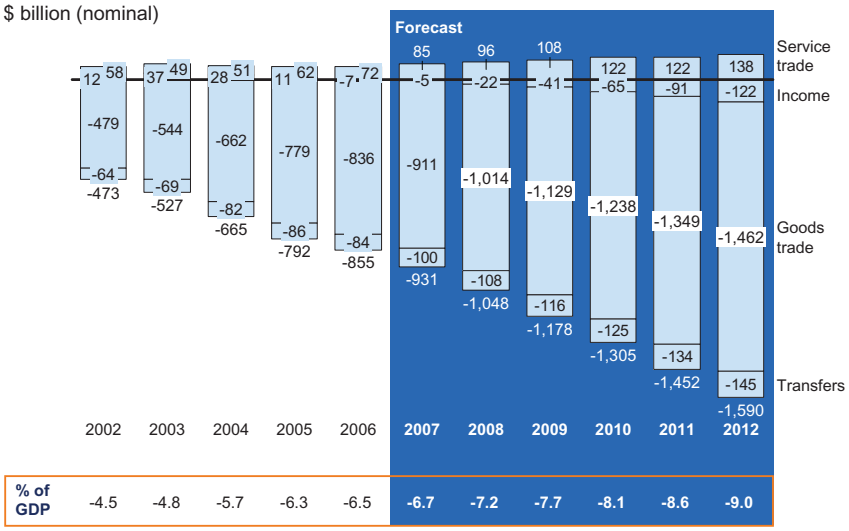
If current trends in global savings and investment continued for another five years, and if there were no adjustments in exchange rates, the US current account deficit would reach $1.6 trillion by 2012, or 9.0 percent of GDP (see appendix A for the methodology used to arrive at this projection) (Exhibit 2.1). Under this scenario the United States would have a trade deficit in goods and mineral fuels

of $1,462 billion, a surplus in services trade of $138 billion, negative net transfer payments of $145 billion, and negative net foreign income of $122 billion.

Exhibit 2.1

IF CURRENT TRENDS CONTINUED, THE US CURRENT ACCOUNT DEFICIT WOULD REACH $1.6 TRILLION BY 2012

$ billion (nominal)



Source: Bureau of Economic Analysis; International Monetary Fund; McKinsey Global Institute Global Capital Flows Database; McKinsey Global Institute analysis

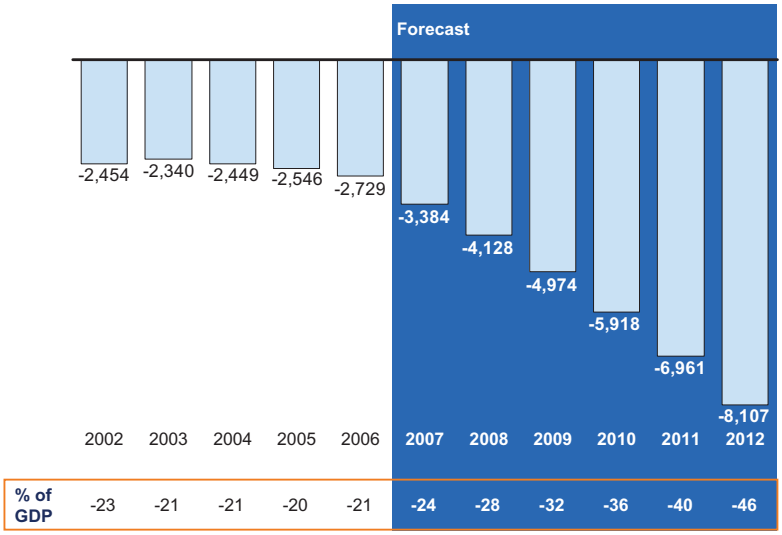
To fund this growing current account deficit the US net foreign debt would triple, reaching $8.1 trillion in 2012, up from $2.7 trillion in 2006 (Exhibit 2.2). This implies much faster growth of US net foreign debt than we have seen in the past and may overstate the true figure. As explained in chapter 1, over the last five years the US net foreign debt has risen much less than the cumulative current account deficits would imply. This is due to the depreciation of the dollar over that period, which raises the value of US foreign assets, and to the appreciation of US foreign assets in foreign direct investment and equity markets abroad. Going forward, our forecast assumes no change in the value of the dollar and takes the average rate of appreciation of US foreign assets and liabilities over the last 15 years.[1]

Even so, the implied level of US net foreign debt in 2012—46 percent of GDP—is not unprecedented. Several countries currently have net external debt of a similar size relative to GDP including Mexico, Australia, and Ireland (Exhibit 2.3). Countries experiencing financial crises over the last ten years usually had higher levels of debt. Examples include Argentina at 74 percent of GDP in 2002,

1 For more on why the US foreign debt has not risen faster, see the IMF *World Economic Outlook*, April 2007.

Exhibit 2.2

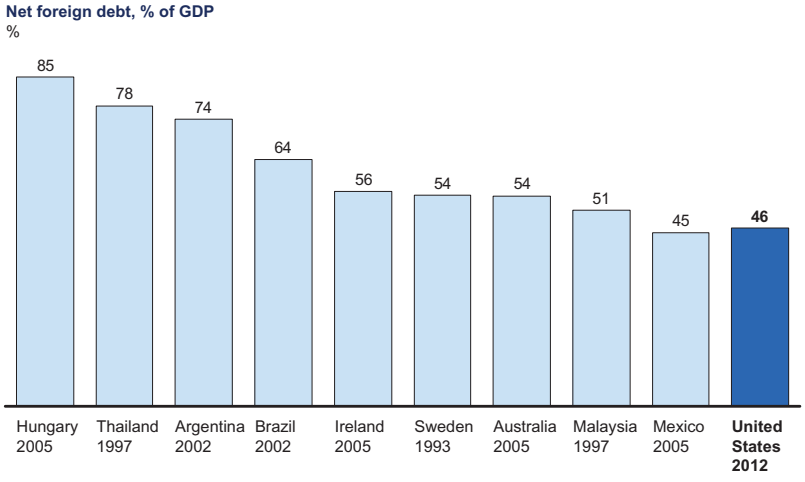
THE US NET FOREIGN DEBT WOULD REACH TO $8.1 TRILLION IN 2012, OR 46 PERCENT OF GDP



Source: Bureau of Economic Analysis; International Monetary Fund; McKinsey Global Institute Cross-Border Investments Database; McKinsey Global Institute analysis

Exhibit 2.3

LEVEL OF US EXTERNAL DEBT IN 2012 WOULD BE HIGH BUT NOT UNPRECEDENTED



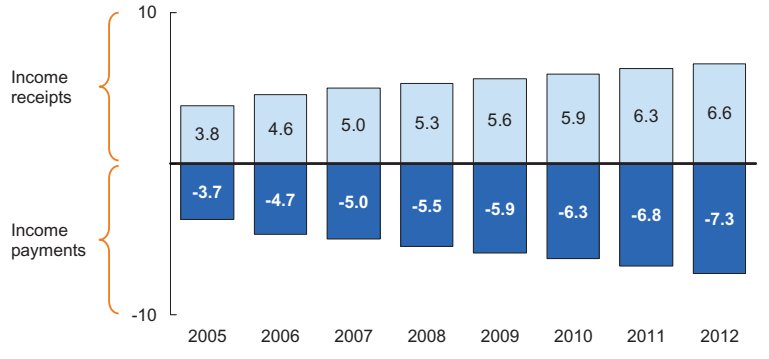
Source: International Monetary Fund; McKinsey Global Institute Cross-Border Investments Database; McKinsey Global Institute analysis

Sweden at 54 percent in 1993, and Thailand at 78 percent in 1997. The United States is unique, however, in that its foreign debt is denominated in its own currency, thereby eliminating currency risk. Moreover the size and productivity of the US economy, combined with the role that the United States plays as a hub to the world financial system, mean that it is an attractive place for foreign investors. All these factors suggest that the United States may well be able to maintain a larger foreign debt than other countries have in the past.

Nor would the implied interest payments on an external debt of this size be large relative to the US economy. The United States has consistently earned superior returns on its foreign assets compared with what it pays out on its foreign liabilities. Even using a smaller spread on returns going forward than the 15-year average would imply, US net foreign-income payments in 2012 would, at $122 billion, be less than 1 percent of GDP (Exhibit 2.4).[2] Projecting current trends even further, we find that it would take until 2020 before US net foreign-income payments would reach even the relatively modest level of 3 percent of GDP.

Exhibit 2.4

US NET FOREIGN INTEREST PAYMENTS WOULD AMOUNT TO LESS THAN 1 PERCENT OF GDP IN 2012
Income receipts and payments as a % of GDP



Net interest payments %	0.1	-0.1	0.0	-0.2	-0.3	-0.4	-0.5	-0.7

Source: International Monetary Fund; McKinsey Global Institute Cross-Border Investments Database; McKinsey Global Institute Global Capital Flows Database; McKinsey Global Institute analysis

Furthermore a larger US deficit would not imply a dramatic increase either in the share of gross world savings being invested in the United States or in the proportion of US financial assets owned by foreign investors. Under current trends

2 In this calculation we use the 2006 spread of 0.9 percent, rather than the 1.3 percent average over the last 15 years.

gross capital inflows into the United States would rise to 23 percent of projected gross savings in the rest of the world, up only slightly from the share in 2006 (Exhibit 2.5). Foreigners would own 16 percent of US equities and 26 percent of US bonds in 2012, up from 14 percent and 20 percent respectively in 2005 (Exhibit 2.6). Overall, while an increasing level of debt and foreign ownership in the United States is less than desirable, a growth in debt over the next five years remains possible.

From the perspective of foreign indebtedness, then, there is no reason to believe that the US current account deficit could not continue to grow over the next five years. However, the question remains as to whether it is plausible that other countries would have sufficiently large current account surpluses to fund a US deficit of $1.6 trillion.

GLOBAL NET CAPITAL OUTFLOWS WOULD TOP $2.1 TRILLION IN OUR BASE CASE

To run a current account deficit the United States must borrow from abroad. As we explain in chapter 1, net capital outflows from countries with current account surpluses fund the US deficit. Under reasonable assumptions these could indeed grow enough over the next five years to fund a $1.6 trillion US current account deficit. In our base case global current account surpluses would grow to $2.1 trillion in 2012 barring major changes in exchange rates and foreign savings rates. East Asia would account for $799 billion of this, Western Europe $623 billion, and oil exporters $387 billion (Exhibit 2.7).[3]

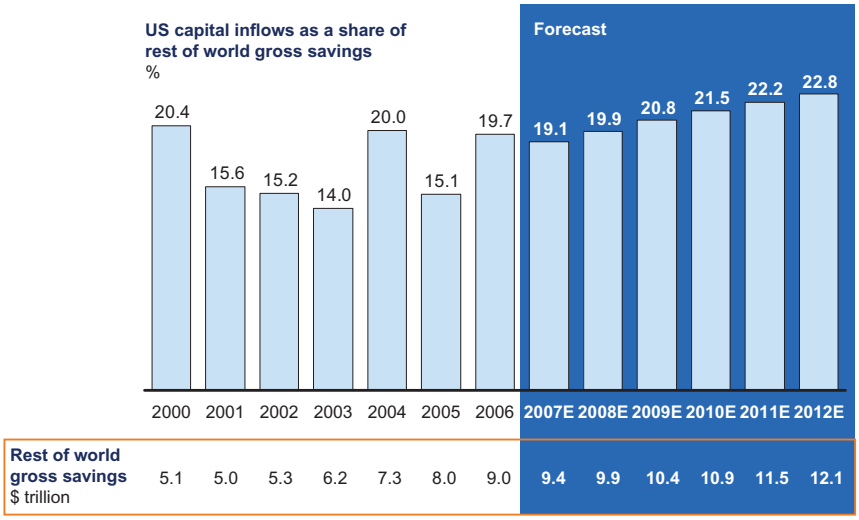
We arrive at this projection by developing a base case for each of the three major capital-exporting regions and then considering downside scenarios for each. In East Asia, we base our projection on the average annual growth rate of current account surpluses in the region between 1998 (the year following the Asian financial crisis) and 2006.[4] At this growth rate, however, several East Asian countries would have very large current account surpluses relative to their GDP. China, for instance, would have a surplus of 17.2 percent of GDP compared with 7.4 percent in 2006. Although some smaller economies such as Singapore currently have much larger current account surpluses than this, it seems unlikely that either China or foreign governments would find a Chinese surplus of this

3 This includes Algeria, Iran, Saudi Arabia, Kuwait, Syria, Yemen, UAE, Oman, Qatar, Indonesia, Nigeria, Norway, Russia, Venezuela.

4 Using the growth rate since 1998 also produces a lower, more conservative projection than if we were to take growth since 2000 or 2002. The same is true for Europe, for which we use the same methodology.

Exhibit 2.5

THE US SHARE OF REST OF WORLD GROSS SAVINGS WOULD INCREASE SLIGHTLY OVER THE NEXT FIVE YEARS

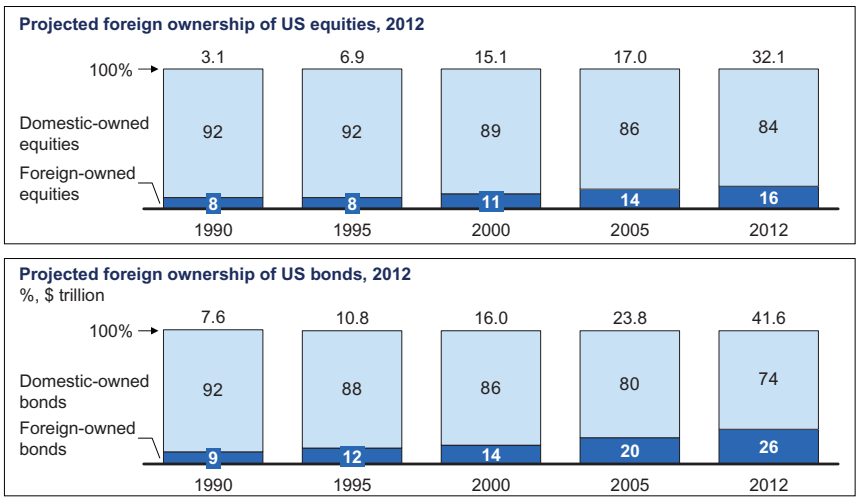


Source: Bureau of Economic Analysis; Global Insight; International Monetary Fund; McKinsey Global Institute Global Capital Flows Database; McKinsey Global Institute analysis

Exhibit 2.6

FOREIGN OWNERSHIP OF EQUITIES AND BONDS WOULD INCREASE ONLY SLIGHTLY OVER THE NEXT FIVE YEARS

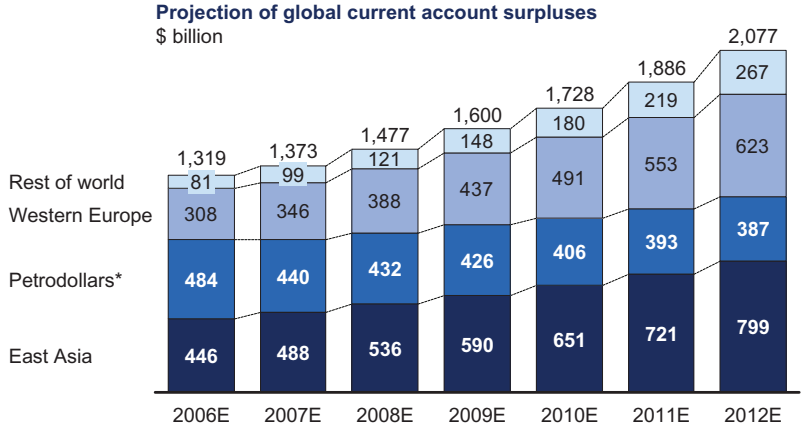
%, $ trillion



Source: McKinsey Global Institute Global Financial Stock Database; McKinsey Global Institute Cross-Border Investments Database

Exhibit 2.7

WITH CURRENT TRENDS CONTINUING, GLOBAL CURRENT ACCOUNT SURPLUSES WOULD REACH $2.1 TRILLION IN 2012



* Includes Algeria, Indonesia, Iran, Nigeria, Norway, Kuwait, Libya, Russia, Saudi Arabia, Syria, United Arab Emirates, Venezuela and Yemen.

Source: International Monetary Fund; McKinsey Global Institute Global Capital Flows Database; McKinsey Global Institute analysis

size desirable. To make our projection plausible we therefore limit the amount by which a country's current account surplus can grow.[5] For most countries the cap is 10 percent of GDP, which is exceeded today only by small economies. For very small economies like Singapore and Hong Kong we set the cap at 27 percent of GDP, the level in Singapore today. We use the same methodology for Western Europe.

We project net capital outflows from oil-exporting economies based on the future price of oil. In our base case their capital outflows amount to $387 billion in 2012—slightly lower than the outflows of $484 billion seen in 2006. The reason for this decline is that we assume an oil price of $50 per barrel compared with nearly $60 per barrel in 2006. These assumptions are those used in MGI's proprietary model of global energy demand.[6] We translate oil revenues into net capital outflows from these economies based on a methodology developed by Brad Setser (see appendix A for details).[7]

5 We assume smooth growth between now and 2012 for countries whose surpluses reach 10 percent of GDP. For financial hubs, such as Singapore and Hong Kong, we cap current account surpluses to 27 percent of GDP, the level of Singapore's current account surplus in 2006.

6 *Curbing Global Energy Demand Growth: The Energy Productivity Opportunity,* McKinsey Global Institute, May 2007.

7 Brad Setser, *Oil and Global Adjustment,* 2007.

Countries in the rest of the world also run current account surpluses that contribute to global net capital outflows. These include Canada, Brazil, Israel, Argentina, and Chile, to name a few. We project their current account surpluses using the same methodology as that used for East Asia and Western Europe. In 2012 their current account surpluses would reach $267 billion, up from $81 billion in 2006.

US SHARE OF GLOBAL CAPITAL FLOWS WOULD INCREASE

Even if global net capital outflows were to grow to $2.1 trillion in 2012, the US current account deficit would absorb a historically unprecedented—and perhaps implausible—share of this. With a deficit of $1.6 trillion, the United States would take up 77 percent of the world's net capital outflows. In chapter 1 we saw that, since 2001, the US deficit has absorbed around 70 percent of the net capital flows from countries with current account surpluses—itself a new high (Exhibit 1.12). In the late 1980s the United States took up around 60 percent of global net capital outflows for a few years, but after this the share fell. If the United States continued to run very large current account deficits for five more years, it would be the first time in modern history that a single country continued to absorb such a large share of the world's capital outflows over such a prolonged period.

Is this scenario plausible? On one hand, larger current account deficits in other countries could limit the ability of the United States to fund its deficit. Australia has had a current account deficit for more than 25 years now, and the United Kingdom also runs a sizeable deficit. Some economies in Europe such as Spain, Portugal, and Greece run deficits too, funded in large part by those of their eurozone neighbors with surpluses. On the other hand, our forecast of global net capital outflows is conservative since we constrain the size of future current account surpluses relative to GDP. Moreover, the US deficit has already broken all historical precedents since 2001. With that in mind, a further rise in the share of world capital that the deficit absorbs could be possible.

DOWNSIDE SCENARIOS FOR GLOBAL NET CAPITAL OUTFLOWS

There are several downside scenarios that could limit global net capital outflows in the years to come. We consider four of these scenarios in an attempt to gauge the ability of the United States to fund a deficit of $1.6 trillion and to identify where the most important sensitivities lie.

1. China saves less; Japan ages

Today Asia, and particularly China and Japan, plays a key role in supplying the world—and the United States—with capital. There are several scenarios under

which the current account surpluses of China and Japan could be reduced over the next five years, however, thus lowering their net capital outflows.

Many economic forecasters are predicting that China's current account surplus will decline in years to come as domestic consumption rises and its savings rate declines. After all China's current account surplus is a relatively new phenomenon, growing from just 1.3 percent of GDP in 2001 to 7.4 percent in 2005. Policy makers both in China and abroad have argued recently that China's economy would benefit from a rebalancing away from investment and exports and towards a higher rate of domestic consumption. The widespread assumption has been that this rebalancing will occur at least partly through a fall in China's historically high savings rate. Alternatively, China could follow the advice of many economists and global policy makers and allow the yuan to appreciate more rapidly over the coming years. In either case China's current account surpluses would grow more slowly.

Japan's current account surpluses could decline if its aging households save less. Japan's household saving rate is already declining and, as more Japanese retire, it will likely fall further. The combined effect of a lower level of savings in both China and Japan would reduce East Asian net capital outflows. Instead of reaching $799 billion in 2012, as in our base case, net capital outflows from East Asia would total only $427 billion (Exhibit 2.8).[8] This would mean that the world supply of capital would be only $150 billion larger than the US current account deficit in 2012, pushing US uptake of world capital to 91 percent. This level is implausible given the preference of foreign investors to vary their portfolios in terms of both geography and currencies.

We consider this outcome rather unlikely, however. MGI's research on China's evolving consumer market finds that, although China's domestic consumption will indeed rise strongly in coming years, the rise will derive largely from rising incomes rather than from falling savings.[9] Indeed MGI projects only a slight decline in China's national savings rate. Although Japan's population is clearly aging, the impact on savings rates over the next five years will be minimal.

2. Surpluses in Europe grow more slowly

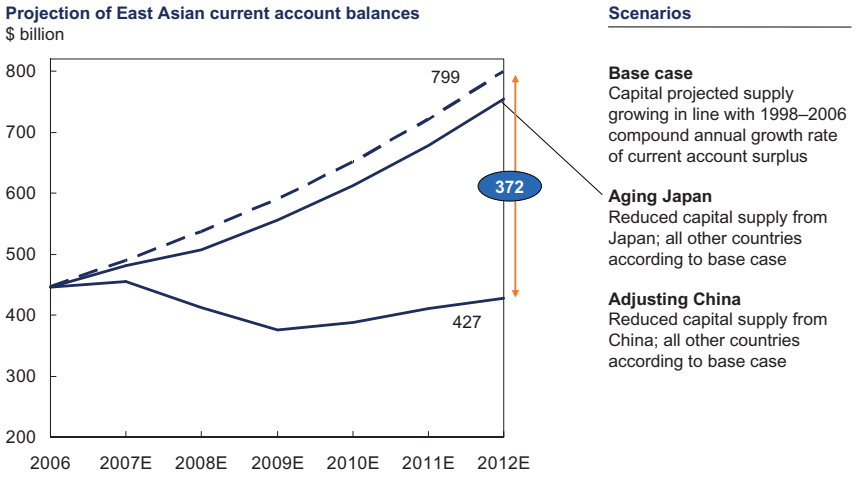
There are two scenarios under which net capital outflows from Europe might be smaller than projected over the next five years. First, what if current account

8 We arrive at this figure by using Global Insight's forecast for current account surpluses in China and Japan, rather than our projection of continued growth.

9 From *"Made in China" to "Sold in China": The Rise of the Chinese Urban Consumer*, McKinsey Global Institute, November 2006.

Exhibit 2.8

UNDER DOWNSIDE SCENARIO, EAST ASIAN CURRENT ACCOUNT SURPLUS WOULD SHOW NO GROWTH THROUGH 2012



Source: Global Insight; McKinsey Global Institute Global Capital Flows Database; McKinsey Global Institute analysis

surpluses within Europe were to grow more slowly in the future? After all, these surpluses are already becoming large relative to GDP in many of the main economies. For instance, in 2006 the Netherlands, Sweden, and Germany had surpluses of 7.5 percent, 7.4 percent, and 4.7 percent of GDP respectively. If we assume that future current account surpluses in Western Europe grow in line with projected GDP growth (2.1 percent annually)—rather than at the growth rate of their current account surpluses (15.1 percent annually) as in our base case—net capital outflows from Europe would be reduced by $270 billion in 2012.

An alternative downside scenario for Europe takes account of capital flows between eurozone countries. Given the common currency, it is likely that countries with current account surpluses such as Germany are sending much of their foreign investment to countries with deficits, such as Spain, Portugal, and Italy. One study has estimated that around half of the increase in eurozone current account surpluses and deficits over the last eight years was due to capital flows within the eurozone.[10] If we assume that 50 percent of eurozone surpluses remain within the region and we exclude these from our sum of global net capital flows, Western Europe's net capital outflows in 2012 would be reduced by $223 billion—from $623 billion to $400 billion. Thus Western Europe's capital outflows

10 Alan Ahearne *et al., Internal and External Current Account Balances in the Eurozone*, February 2007.

over the next five years could be reduced by $220 billion to $270 billion less than we project in our base case. This would raise the US absorption of world capital to a very high 88 percent.

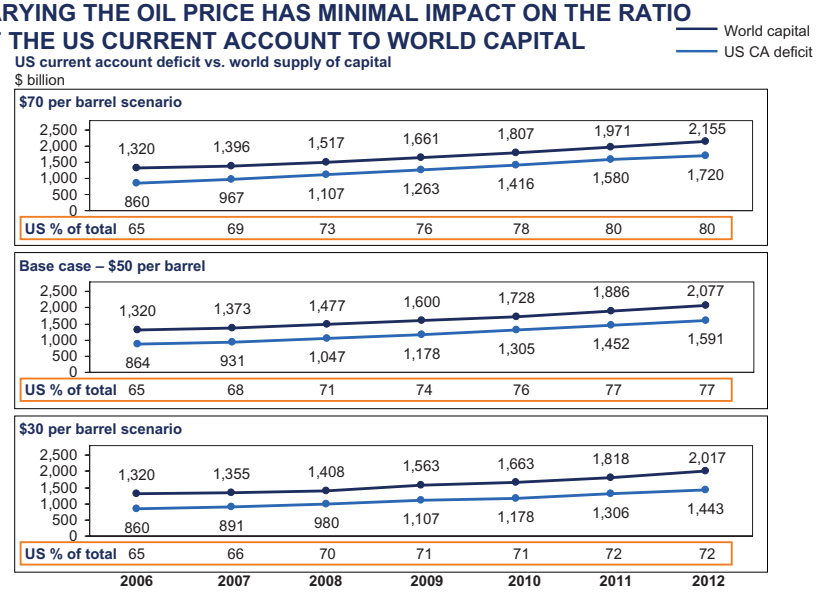
3. Fewer petrodollars due to price of oil

Another possibility causing concern among commentators and economists is reduced net capital outflows from oil-exporting economies in future years as a result of lower oil prices. However, we find that changes in the price of oil would not significantly affect the extent to which there is sufficient capital to fund a US current account deficit. This is because of "petrodollar recycling". If the price of oil increases the US trade deficit rises, but net capital outflows from oil-exporting countries rise too. At the same time, current account surpluses in Europe and Asia fall somewhat due to more costly oil imports. Conversely, if the oil price falls the decline in capital outflows from oil-exporters is offset by a reduction in the US current account deficit and by current account surpluses in Asia and Europe rising on the back of cheaper oil imports. We find that the US share of net capital outflows varies by less than 5 percentage points between conditions under which oil is priced at $30 per barrel and at $70 per barrel (Exhibit 2.9).

Exhibit 2.9

VARYING THE OIL PRICE HAS MINIMAL IMPACT ON THE RATIO OF THE US CURRENT ACCOUNT TO WORLD CAPITAL

US current account deficit vs. world supply of capital



Source: McKinsey Global Institute GEM model; McKinsey Global Institute Global Capital-Flows Database; McKinsey Global Institute analysis

Even so, a higher price of oil does make it slightly more difficult for the United States to fund a deficit. Under the downside scenario we posit oil prices rising to $70 per barrel instead of $50 per barrel as in our base case. If this were to

happen, net capital outflows from oil-exporting countries would increase by $241 billion, but the US deficit would also grow by an additional $129 billion. Current account surpluses in Western Europe and East Asia would be reduced by $61 billion and $102 billion respectively. The overall effect is that global net capital flows would increase by $78 billion and the US deficit would rise by $129 billion. This would barely affect the ability of the United States to fund a larger current account deficit.

4. Rest of world has smaller surpluses

Our final downside scenario considers other countries in the world that are running current account surpluses such as Canada, Brazil, and Argentina. Constructing a rational downside scenario for the "rest of the world" is difficult since such a group includes a large and diverse set of countries (15 countries in 2005). Even if one or more of them experienced slower growth in their current account surpluses over the next five years, other countries might see their surpluses grow faster than in recent years. Moreover, some countries' current account deficits might turn into surpluses. Indeed, we find that surpluses in our "rest of the world" category have grown steadily since 1998 despite changes in individual countries in that group.

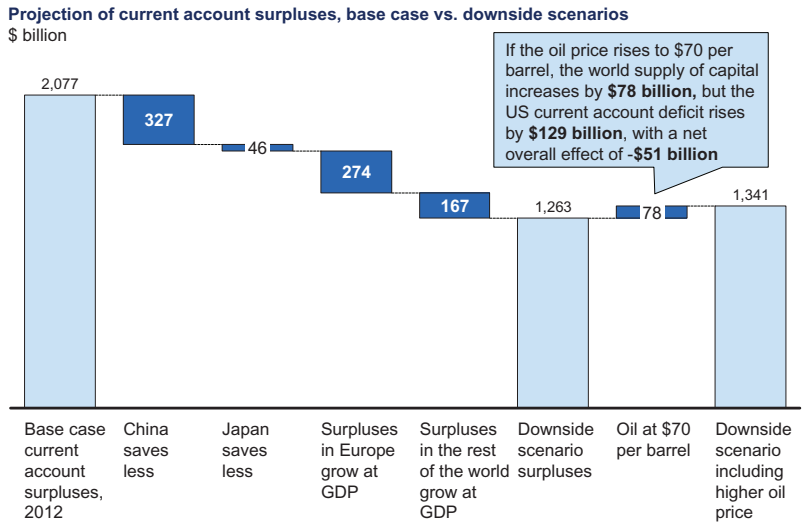
Despite recent historical experience, we still decided to test slower growth in the current account surpluses of this group in order to understand the sensitivity to this of the US deficit. In our base case we assumed that their current account surpluses grow at the same rate as they have since 1998. However, if we project a slower growth rate using GDP growth forecasts instead of current account growth we find their net capital outflows would be reduced by $157 billion in 2012 to total $110 billion instead of $267 billion. This would raise the share of world capital absorbed by the United States to fund its deficit only marginally to 83 percent.

COMBINING THE DOWNSIDE SCENARIOS

Considering these downside scenarios overall, we believe that the only one which would, in itself, make a $1.6 trillion US current account deficit manifestly difficult to fund would be smaller current account surpluses due to lower savings in China and Japan (Exhibit 2.10). Even then, as we have explained, this would require a much lower savings rate in China over the next five years than the MGI model of Chinese consumer demand and income growth implies. The other scenarios taken in isolation would not put an obvious constraint on the growth of the US current account deficit.

Exhibit 2.10

LOWER SAVINGS IN CHINA IS THE LARGEST DOWNSIDE SCENARIO THAT COULD PUT FUNDING OF THE DEFICIT AT RISK



Source: McKinsey Global Institute analysis

If all these downside scenarios were to occur simultaneously, however, the United States clearly could not fund an ever-growing current account deficit.[11] We find that global net capital outflows would amount to just $1,341 billion in 2012—less than the US current account deficit (Exhibit 2.11). Indeed the US deficit could exceed the world net supply of capital as early as 2010. We do not regard this outcome as likely. But if one or two of the downside elements did occur—notably somewhat lower saving in China combined with slower current account surplus growth in Europe—this would increase the US absorption of global capital beyond 77 percent to unprecedented and perhaps unsustainable levels.

CONCLUSION: THE US CURRENT ACCOUNT DEFICIT COULD PLAUSIBLY CONTINUE TO GROW

We conclude that a correction in the US current account deficit over the next five years is neither imminent nor inevitable.[12] Instead, the deficit could plausibly continue to grow over the next five years, reaching levels of 7, 8 or even 9 percent of GDP. Under reasonable assumptions current account surpluses in other countries could also continue to grow, thus producing the net capital outflows

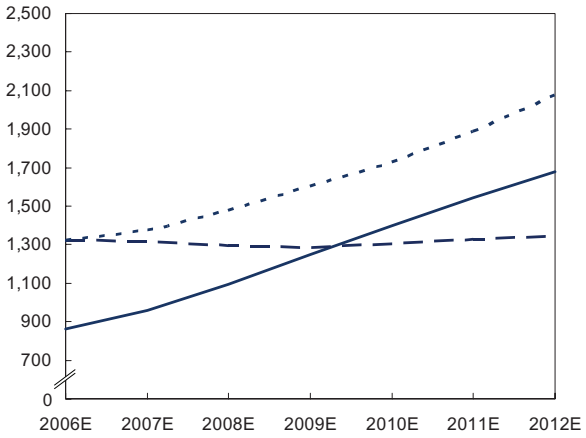
11 For Europe, we use the slower GDP-growth scenario, which has a larger negative impact on current account surpluses.

12 This view is supported by Cooper (2005) and Dooley, Folkerts-Landau, and Garber (2004).

Exhibit 2.11

IF ALL DOWNSIDE SCENARIOS OCCURRED, THE US CURRENT ACCOUNT DEFICIT WOULD EXCEED GLOBAL CAPITAL SUPPLY BY 2010

Global current account surpluses and US deficit
$ billion



Current account surpluses – base-case scenario

US current account deficit

Current account surpluses under downside scenario
- Smaller current account surpluses in East Asia due to adjustments in China and Japan
- Oil price increases gradually to $70 per barrel
- GDP-based current account growth in Western Europe
- GDP-based current account growth in ROW

Source: McKinsey Global Institute analysis

necessary to fund a larger US deficit. The resulting level of US foreign debt, at 46 percent of GDP, would be high but not unprecedented, and the implied net interest payments incurred by the United States would remain below 1 percent of GDP.

Although there are several downside scenarios that could limit the amount of global capital available to fund an ever-growing US deficit, the only one that would, in itself, make it hard to finance a larger US current account deficit would be a significant fall in Asian savings, and in particular those of China. However we believe this is unlikely. If all the downside scenarios we have identified were to occur simultaneously, the ability to finance the deficit would be compromised. While this is possible, it is unlikely.

3. Export growth: The key to closing the US deficit?

In 2006, the value of US imports were 53 percent larger than exports. Even if US imports and exports were to grow at an identical rate from today onward—and the reality is that imports have been growing more quickly than exports—the US current account deficit would continue to get larger each year.

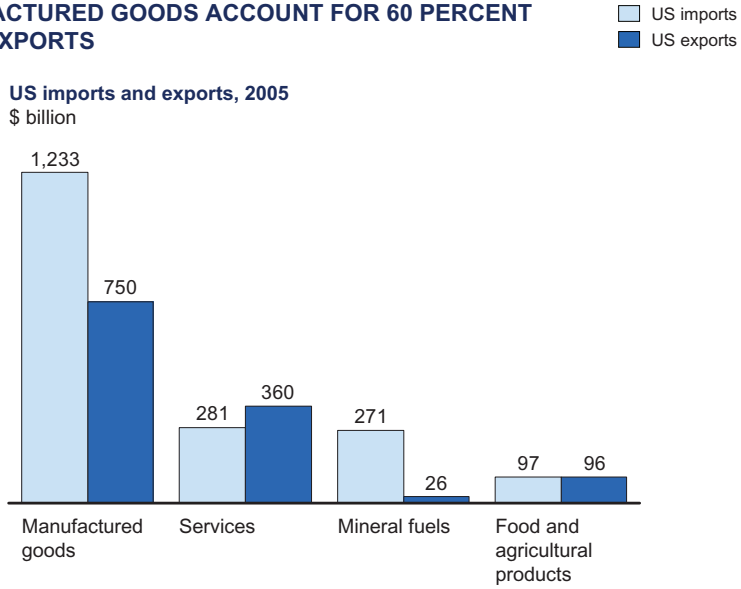
However, recent indications suggest that US export growth is picking up. In the fourth quarter of 2006 the US trade deficit narrowed for the first time since the fourth quarter of 2001. Both services and manufacturing exports grew strongly. Overall exports were up $42 billion or 13 percent from a year earlier, while imports increased by just $26 billion or 5 percent. If sustained, these changes could stabilize or even reduce the US current account deficit without major economic dislocation.

This prompted MGI to assess the potential for the United States to export more. We use a microeconomic approach to identify the product categories and countries for which the United States has the potential to grow exports. We focus on manufacturing exports—which account for 60 percent of US exports—and service exports (Exhibit 3.1). In this analysis we set aside the macroeconomic and policy changes that may be needed to increase US exports—for example depreciation of the dollar, reduction in trade barriers, or an improvement in US productivity. Instead our goal is to identify areas where the United States has an opportunity to expand its exports, and then to quantify the potential impact on the deficit.

We find that, under favorable conditions, the United States could potentially increase exports by up to $485 billion over and above the total predicted for

Exhibit 3.1

MANUFACTURED GOODS ACCOUNT FOR 60 PERCENT OF US EXPORTS



Source: United States International Trade Commission

2012 under current trends. Although substantial, this increase would still leave the United States with a current account deficit of 6.3 percent of GDP in 2012—roughly the same as it is today. Reducing the US deficit would therefore require substantial reductions in imports as well (see Box 3 on the potential to reduce US fuel imports). This implies that it is likely that a major global rebalancing of savings and demand would be accompanied by a significant change in exchange rates. We consider this scenario in chapter 4.

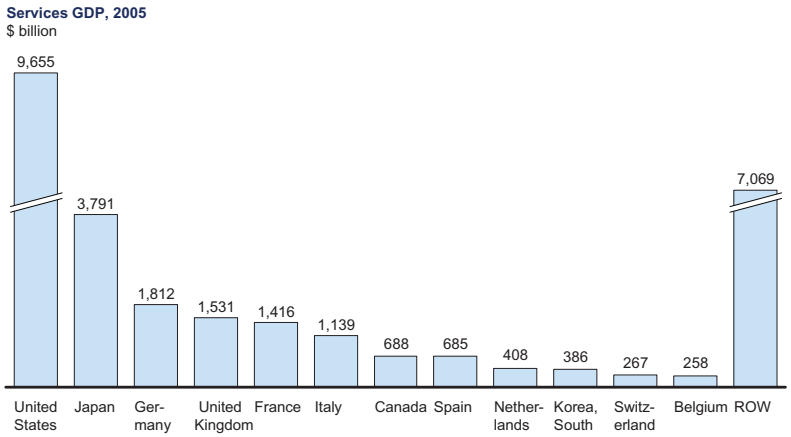
SERVICE EXPORTS: THE KEY TO REDUCING THE US DEFICIT?

Services trade is one of the last frontiers in the continuing process of global economic integration. Although global trade in services is equivalent to just 28 percent of the global trade in manufactured goods, its growth rate is 1.5 times more rapid. Over coming years services will undoubtedly form a larger part of world trade. This is good news for the United States, which has consistently run a surplus on services trade since 1980.

To assess the potential for US service exports to increase, we examine a range of countries and service categories. We see that services make up a varying share of overall GDP in different countries, ranging from 70 percent or more in the United States and other mature economies to 50 percent or less in emerging markets (Exhibit 3.2). Countries also differ widely in the portion of services that they import and the share of service imports that come from the United States (Exhibit 3.3).

Exhibit 3.2

SIZE OF SERVICES GDP VARIES BY COUNTRY

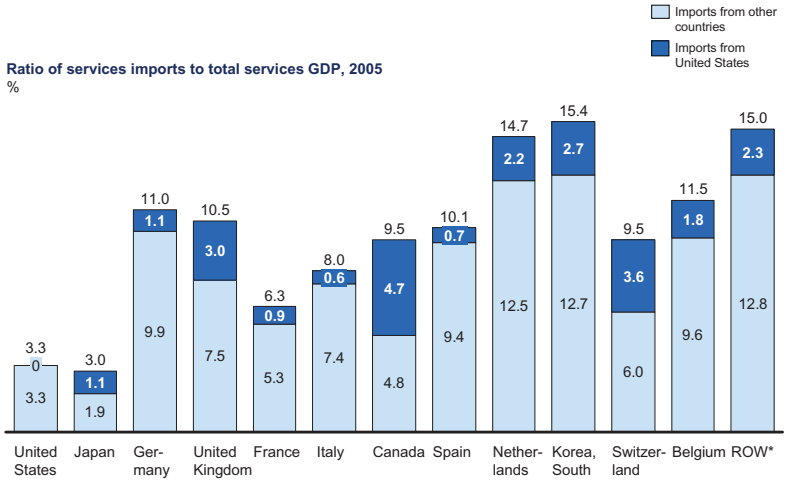


	United States	Japan	Ger-many	United Kingdom	France	Italy	Canada	Spain	Nether-lands	Korea, South	Switz-erland	Belgium	ROW
Share of services in GDP	77	71	69	75	73	70	64	69	72	56	71	74	54

Source: Bureau of Economic Analysis; Global Insight; McKinsey Global Institute analysis

Exhibit 3.3

COUNTRIES DIFFER IN THE AMOUNT OF SERVICES THEY IMPORT



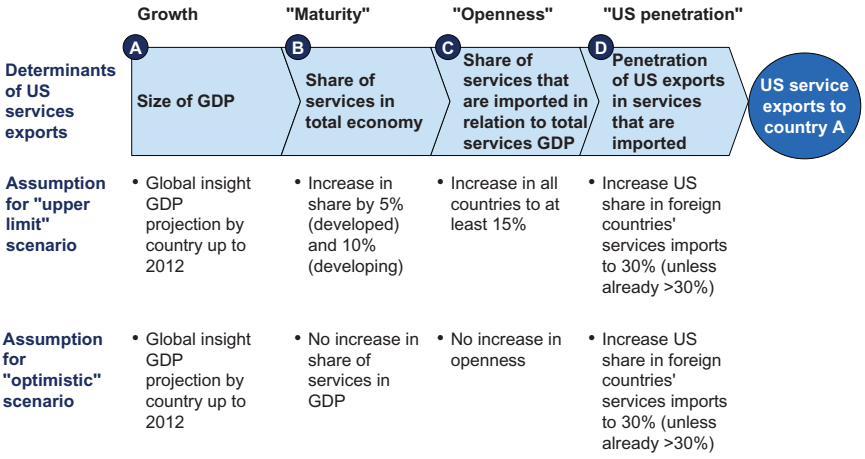
	United States	Japan	Ger-many	United Kingdom	France	Italy	Canada	Spain	Nether-lands	Korea, South	Switzer-land	Belgium	ROW*
US share in imports %	0	37	10	28	15	8	50	7	15	17	37	16	15

Source: Bureau of Economic Analysis; Global Insight; McKinsey Global Institute analysis

We look at a variety of mechanisms that would make it possible for the United States to export more services. One mechanism would be faster GDP growth in other countries such that their overall level of imports increases. Another route for higher US exports would be opened if the share of services in overall GDP were to rise in countries with underdeveloped service sectors. Alternatively, countries could import a larger share of the services they consume. Finally, the United States could increase its share of other countries' current service imports. For each of these factors we examine both an "optimistic" scenario and an "upper limit" scenario (Exhibit 3.4).

Exhibit 3.4

US SERVICES EXPORTS ARE DETERMINED BY FOUR DIMENSIONS FOR EACH COUNTRY



Source: McKinsey Global Institute analysis

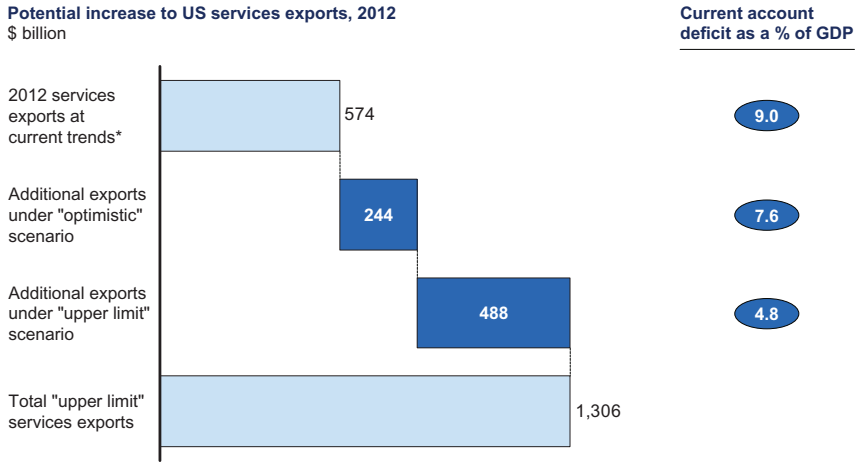
Under our optimistic scenario we find that US service exports could increase by $244 billion over current growth trends in 2012 (Exhibit 3.5). However this would still leave the United States with a very large current account deficit of 7.6 percent of GDP. Under this scenario US service exports increase most to countries where US penetration is currently low such as Germany, Italy, and Spain.

Using much more aggressive assumptions we calculate that US service exports could increase by $732 billion above current trends in 2012—still leaving a current account deficit of 4.8 percent of GDP. We do not believe that this "upper limit" scenario is likely to occur within our five-year timeframe however. One reason is that it takes more than five years for countries significantly to develop the share of services in their economies. Moreover, factors such as language,

culture, and the necessity of being on-site will limit the share of services imports for many service-sector activities, at least over the short-term.

Exhibit 3.5

US SERVICES EXPORTS COULD GROW ~$250 BILLION ABOVE TREND IN 2012 UNDER OPTIMISTIC SCENARIO



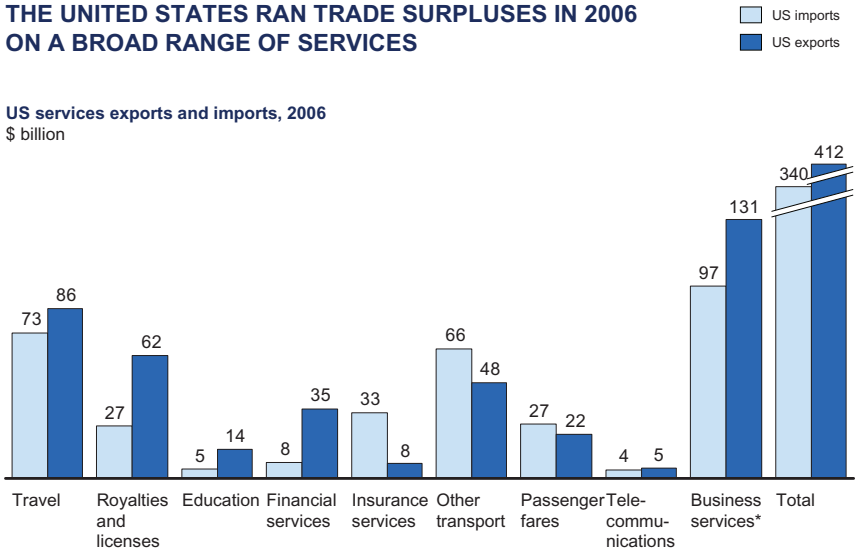
* Projection based on GDP growth rates in United States and other countries and income elasticities.
Source: Global Insight; McKinsey Global Institute analysis

We also examine the potential for the United States to increase exports in each category of services. Today the United States runs a trade surplus in royalties, financial services, business services, travel and education (Exhibit 3.6). How much larger could these categories grow? For each type of service export we consider the maximum possible increase as well as a more feasible, but still highly optimistic increase. Consider the case of US education "exports", or the tuition and fees received from foreign students studying at US schools. We assume that the most the United States could achieve would be to attract 100 percent of students studying abroad today. Our optimistic case assumes that one-third of the students of US universities and graduate schools were foreign (the current share of international students at Harvard Business School). We take a similar creative approach across other services sectors (Exhibit 3.7).

The overall results of this exercise are similar to our country analysis. Our optimistic scenario shows an increase in US service exports of $265 billion over current trends, with the largest increases being achieved in financial services, royalties and licenses, and transportation (excluding passenger fares). At the upper limit the United States could increase service exports by $776 billion over trend in 2012, but even this would leave a current account deficit larger than 4 percent of GDP.

Exhibit 3.6

THE UNITED STATES RAN TRADE SURPLUSES IN 2006 ON A BROAD RANGE OF SERVICES



* Computer and information services, management and consulting services, R&D, operational leasing, film, and other.

Source: Bureau of Economic Analysis

Exhibit 3.7

MGI USES VARIOUS ASSUMPTIONS FOR DIFFERENT SERVICES EXPORTS

Category	Upper limit	Optimistic scenario
Travel	• Double historic high growth rate (1992–2000) of 5.2%	• Grow at 1992–2000 compound annual growth rate, 5.2%
Passenger fares, other transportation, telecom	• 100% of US bilateral trade	• 75% of US bilateral trade
Royalties	• Global royalty trade grows 3.2% annually and US market share goes to 100%	• Extrapolate US royalty exports with highest historic growth rate 2002–05 (10.5%)
Finance	• US achieves twice the ratio of the United Kingdom in financial exports to GDP	• US doubles ratio of finance exports to GDP to match United Kingdom (0.31–0.67)
Education	• United States receives 100% of students studying abroad	• Foreign graduate students as share of total increases to 33% (current share at HBS) – same as tripling current number of foreign student
Insurance	• United States takes entire global reinsurance market	• US insurance exports replace all German reinsurance premiums (23% of global market)
Other	• Extrapolate at twice compound annual growth rate of 2000–05 (14%)	• Extrapolate at compound annual growth rate from 2000–05 of total trade in other services (8.1%)

Source: McKinsey Global Institute analysis

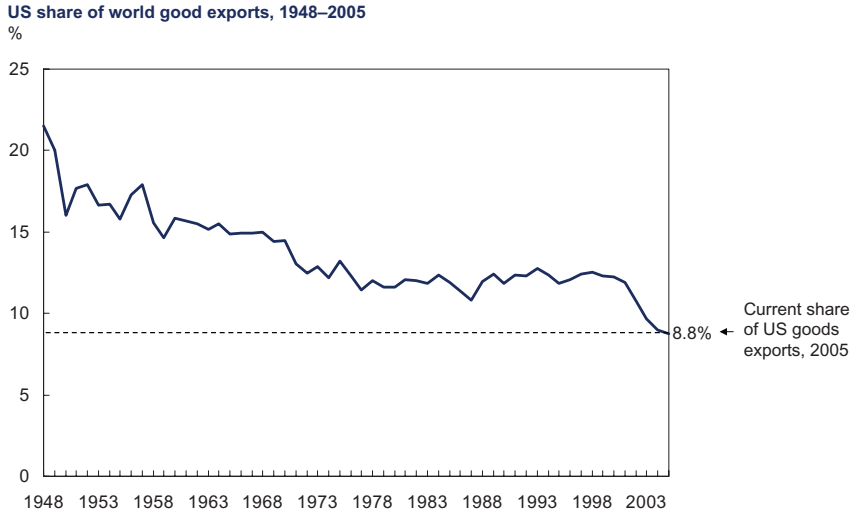
Based on these two methodologies we conclude that it is not conceivable for the United States to reduce—or even halt growth in—its current account deficit merely by exporting more services. They simply do not account for a sufficiently large share of trade today. Using optimistic assumptions we conclude that the United States could increase its service exports by perhaps $250 billion annually over current trends. This would reduce future growth in the current account deficit, but would not even halt its upward trajectory.

THE POTENTIAL TO BOOST US MANUFACTURING EXPORTS

US exports of manufactured goods have grown in value by 10.7 percent annually since 2002. Even with this growth, however, the US share of world trade in goods has declined since World War II, particularly over the last five years (Exhibit 3.8). [1]Could the United States reverse this trend?

Exhibit 3.8

THE US SHARE OF GLOBAL GOODS EXPORTS HAS STEADILY DECLINED OVER THE POST-WAR PERIOD



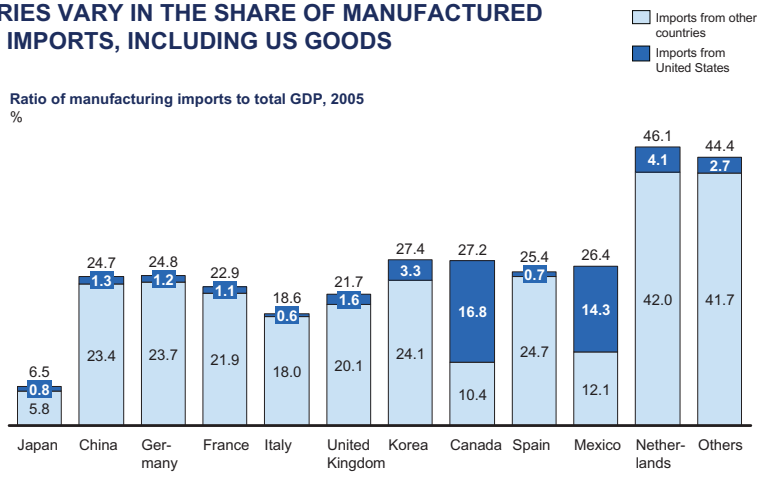
Source: International Monetary Fund; McKinsey Global Institute analysis

The volume of manufactured goods imports relative to GDP varies by country, as does the US share of manufacturing imports (Exhibit 3.9). For instance, manufactured imports make up around 25 percent of GDP in both China and Mexico because both countries have significant assembly operations relying on imported components. However, the United States accounts for more than 50 percent of manufactured imports into Mexico but just 5 percent into China.

1 In the 1950s and 1960s, the United States lost share as economies in Europe, and then later Japan, started to export more. In recent years, the rise in exports from Asia, particularly China, has eroded the US share.

Exhibit 3.9

COUNTRIES VARY IN THE SHARE OF MANUFACTURED GOODS IMPORTS, INCLUDING US GOODS



US share in total imports %	Japan	China	Ger-many	France	Italy	United Kingdom	Korea	Canada	Spain	Mexico	Nether-lands	Others
	12	5	5	5	3	7	12	62	3	54	9	5

Source: Bureau of Economic Analysis; Global Insight; McKinsey Global Institute analysis

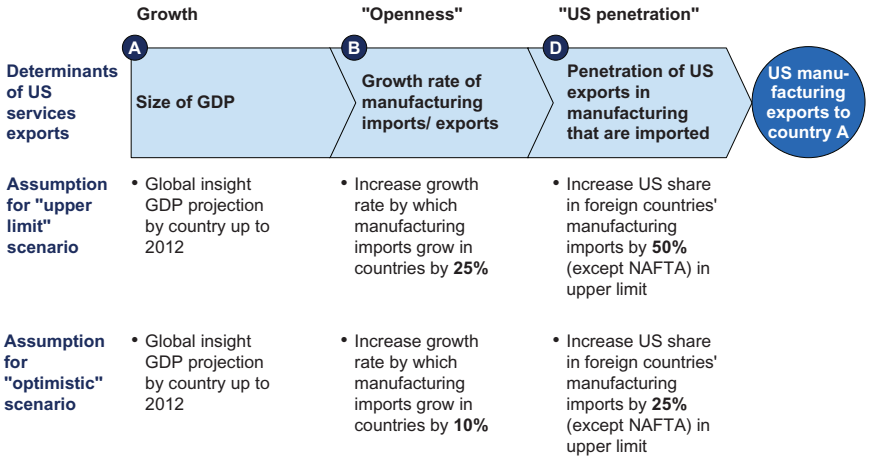
We therefore assess the potential for the United States to increase manufacturing exports by looking at three factors: GDP growth in other countries, which raises their overall level of imports; the openness of each country's manufacturing sector to trade; and the US share of manufacturing imports in other countries. Again we use different assumptions for an "optimistic" and an "upper-limit" scenario (Exhibit 3.10).

Under our optimistic scenario we find that US manufacturing exports would increase by $241 billion over trend in 2012, leaving a current account deficit of 7.7 percent of GDP (Exhibit 3.11). In this scenario manufacturing exports increase most to Canada, Mexico, China, and Japan.

For the upper-limit scenario we assume that the United States could increase its share of other countries' manufacturing imports by 50 percent. In the case of Japan this would mean that the US share of imports grew from a 12 percent share in 2005 to 18 percent; for Germany, the US share would increase from 4.8 percent to 7.2 percent. Overall we find that US manufacturing exports could increase $513 billion over current trends in 2012, leaving a current account deficit of 6.1 percent of GDP. This would mean that the United States would halt the decline in its share of world manufacturing trade and even increase it modestly from its current 8.8 percent to 11.0 percent.

Exhibit 3.10

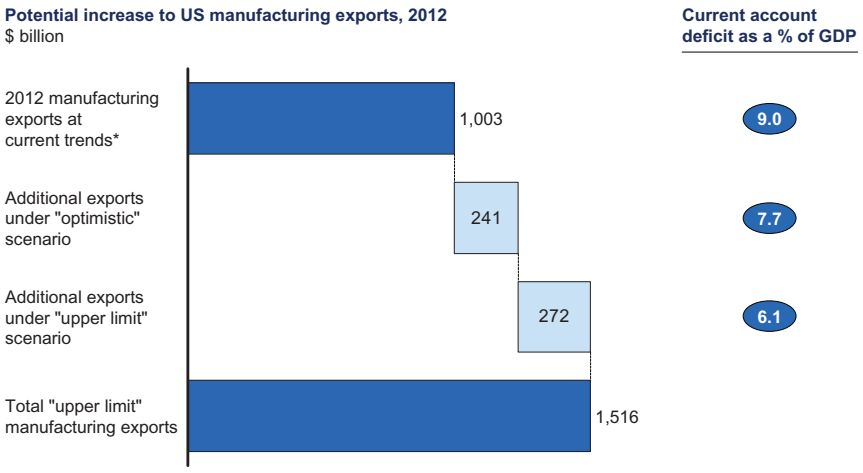
US MANUFACTURING EXPORTS ARE DETERMINED BY THREE DIMENSIONS FOR EACH COUNTRY



Source: McKinsey Global Institute analysis

Exhibit 3.11

US MANUFACTURING EXPORTS COULD INCREASE ~$240 BILLION ABOVE TREND IN 2012 UNDER OPTIMISTIC SCENARIO



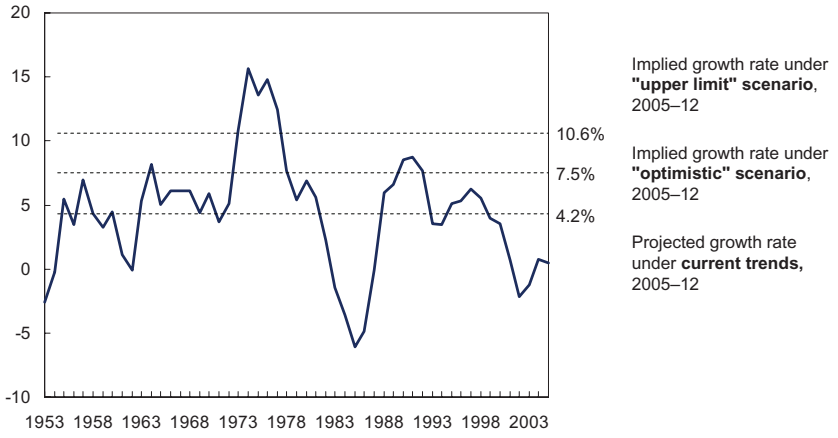
* Projection based on GDP growth rates in United States and other countries and income elasticities.

Source: Global Insight, McKinsey Global Institute analysis

Exhibit 3.12

THE IMPLIED GROWTH RATE OF US MANUFACTURING EXPORTS IS HIGH BUT NOT UNPRECEDENTED

Real growth rate in US goods exports, 1953–2005
Compound annual growth rate of previous five years, %



Source: International Monetary Fund; McKinsey Global Institute analysis

Both of these scenarios imply that US manufacturing exports could grow faster than they have in the past and at rates that are not unprecedented. The optimistic scenario implies a growth rate of 7.5 percent, a level enjoyed during the early 1990s (Exhibit 3.12). The upper-limit scenario is less likely given historical experience. It implies that US exports grow at 10.6 percent annually, a rate not seen since the early 1970s during which the dollar depreciated substantially.

CONCLUSION: EXPORT GROWTH ALONE WILL NOT SUBSTANTIALLY REDUCE THE US CURRENT ACCOUNT DEFICIT BY 2012

The United States has the potential to increase both service and manufacturing exports—but not enough to make a significant dent in the current account deficit by 2012. Even if the United States were able to achieve the optimistic scenarios for both services and manufacturing exports, boosting exports by nearly $500 billion over current trends, the current account deficit in five years' time would still be 6.3 percent of GDP, only slightly lower than it was in 2006.

Moreover, achieving this potential export growth would be very difficult at current exchange rates. It would require either a very large increase in foreign GDP growth rates or a significant rise in the US share of current world exports. Based on our estimates of income elasticities around the world, we find that a 1 percentage point increase in foreign GDP growth rates translates into an increase of $97

billion of US exports. To achieve the $500 billion increase in US exports through foreign growth alone would require a 5 percentage point jump in foreign GDP growth rates—more than twice current projections, and an absurdly high level. Of course, the United States could also increase exports simply by increasing its current share of world trade. Since trade barriers are relatively insignificant for most US trading partners, such a shift would likely happen only over many years, however.

A major reduction in imports thus seems unavoidable in reducing the size of the US current account deficit. This will entail a rebalancing of global demand and savings, with the United States saving more and consuming less, and other countries increasing their demand. Unless this adjustment happens gradually over many years, a significant depreciation of the dollar seems likely. We explore the potential size of such a depreciation in the next chapter.

The impact of US fuel efficiency on the current account

With imports of mineral fuels the largest single component of the US trade deficit, the rise in world oil prices over the last few years has contributed some of the growth in the US current account deficit in recent years. Since 2002 fuel has accounted for 65 percent of the increase in the US trade deficit. The fuel deficit alone (including natural gas) was $299 billion in 2006, of which oil accounted for 90 percent.

Improving energy efficiency in the United States could reduce the size of this deficit. Using MGI's research on global energy demand, we find that the United States could reduce oil imports by $21 billion annually by 2012 simply by adopting existing technologies to improve the oil efficiency of US automobiles, trucks, factories, and other oil end-users.[2] But realizing the full potential for higher energy efficiency to abate energy demand takes time. By 2020, when the full abatement potential would be reached, the United States could reduce oil imports by nearly $40 billion per year.

To arrive at this calculation we model only those savings derived from energy-efficiency investments with an internal rate of return of 10 percent or more. Under current US law, relatively low oil prices mean that many energy-efficiency improvements would not have a positive economic return for end users, and are therefore unlikely to be implemented. For instance low fuel taxes and emissions standards in the United States currently mean that there is little incentive to improve the fuel efficiency of automobiles to match the levels in Japan or Europe. However, if the United States were to raise fuel taxes or increase fuel efficiency standards, it would make economic sense for US consumers to buy more fuel-efficient cars. For every 10 percent reduction in the fuel that US consumers use, the US current account deficit could be reduced by $25 billion by 2012 and $30 billion in 2020.

2 This assumes an oil price of $50 per barrel. Diana Farrell *et al., Productivity of Growing Energy Demand: A Microeconomic Perspective*, December, 2006.

4. Potential dollar depreciation and impact on trade patterns

While it is possible that the US current account deficit could continue to grow over the next five years, it cannot increase *ad infinitum*. Eventually it will need to stabilize or even shrink relative to the size of the economy. In order for this to happen, there would need to be a major rebalancing of global savings and demand and a corresponding shift in US imports and exports. If this adjustment took place gradually over a period of many years, the impact on exchange rates could be minimal, instead reflecting changes in the underlying demographics, savings and investment behavior, and productivity growth rates of different economies around the world. This view has some notable supporters.[1]

An alternative scenario is one where the current account adjustment takes place more rapidly and precipitates a large decline in the dollar.[2] A variety of shocks could initiate this dynamic such as an increase in US private savings due to the end of the housing boom; an increase in demand in China and other parts of Asia, perhaps due to higher government spending on education and healthcare; or more domestic investment in oil-exporting economies, particularly those in the Middle East. Our goal in this chapter is to determine how much the dollar would depreciate if this scenario were to occur and to examine the implications for US trade patterns.

Our analysis implies that if the deficit were to be eliminated over the next five years, a very large depreciation of the dollar would be needed—amounting to 30

1 See Cooper, *Living with Global Imbalances*, 2005; Dooley et al., "The Revived Bretton Woods System" 2004; Greenspan, "The evolving US payments imbalance," 2004.

2 Adherents of this view include Obstfeld and Rogoff ("The unsustainable US current account position revisited," 2005), Cline (*The United States as a Debtor Nation*, 2005), and Roubini and Setser (The US as a Net Debtor, 2004).

percent of its level in January 2007. We consider three different scenarios under which a depreciation of this magnitude could occur and several surprising findings emerge. Even with a balanced current account, the United States continues to run a large merchandise trade deficit, offset by positive net foreign income and a larger surplus in services trade. The US trade deficit with China persists under all scenarios, even one involving a 45 percent depreciation of the dollar against the yuan. US trade with Canada and Mexico—often overlooked in discussions about unwinding global imbalances—plays a large role in the adjustment as the United States moves to surplus with its NAFTA partners. Looking at different traded products, we find that exports of services and manufactured goods incorporating high-tech show the greatest increases.

BALANCING THE US CURRENT ACCOUNT COULD INVOLVE A 30 PERCENT DOLLAR DEPRECIATION

If the US current account were to come into balance over the next five years, what would be the impact on the dollar? To answer this question, we model the effect of dollar depreciation on US imports, exports, and net income. We calculate the impact on trade by using import-price elasticities for 30 different products and 100 countries and on US net foreign income and net debt by using the historic rates of return on US foreign assets and liabilities. Appendix B gives more detail on our methodology and the assumptions employed.

We find that the dollar would need to depreciate on a trade-weighted basis by 30 percent from its level in January 2007 if the US current account deficit were to close by 2012. Taking the dollar's value at the end of December 2005—the baseline year for our model data—it would have to depreciate by 33 percent (Exhibit 4.1). Although very large, the magnitude of this change is in line with the findings of other economists.[3]

Many economists argue that the United States does not need to return to current account balance, however, but rather to reduce the size of the deficit to a more sustainable level of 2 or 3 percent of GDP.[4] This is due to the US role as a global

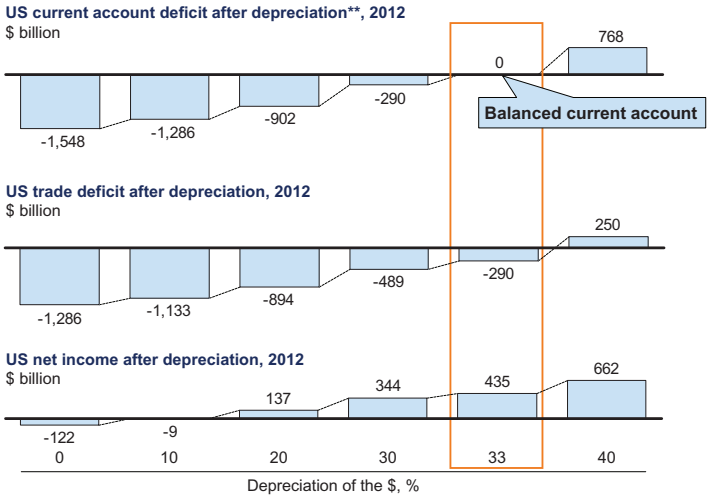
3 For instance, Obstfeld and Rogoff ("The unsustainable US current account position revisited," 2005) calculate that the dollar would need to depreciate by 25–35 percent from its level in November 2005. Baily (*Dollar Adjustment*, 2007) calculates that the dollar would need to fall by 20 percent from January 2007 to close the trade deficit. Cline (*Estimating Reference Exchange Rates*, 2007) finds that the dollar would need to decline by 18 percent from its level in August 2006 to get to a 3 percent current account deficit. See appendix 1 on methodology for a more detailed comparison.

4 See for example Alan Ahearne, Jurgen von Hagen, and Brigit Schmitz, *Internal and External Current Account Balances in the Eurozone*, 2007; and William Cline, *The United States as a Debtor Nation: Risks and Policy Reform*, 2005.

financial hub and its dynamic economy and robust growth, all of which will continue to attract foreign savings for the next several decades. If the US deficit were to narrow to 3 percent of GDP, our model shows that the dollar would depreciate by 23 percent from January 2007 (Exhibit 4.2).

Exhibit 4.1

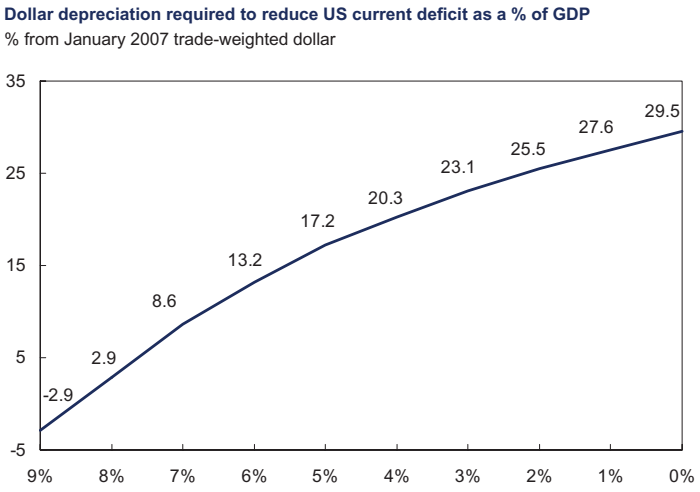
DOLLAR DEPRECIATION OF 33 PERCENT* WOULD BE NEEDED TO CLOSE CURRENT ACCOUNT DEFICIT



* From dollar level in December 2005. That is equivalent to a 30% depreciation from January 2007.
** See Appendix 1 for details on methodology and assumptions employed.
Source: McKinsey Global Institute analysis

Exhibit 4.2

THE DOLLAR WOULD NEED TO FALL BY 23 PERCENT TO ACHIEVE A CURRENT ACCOUNT DEFICIT OF 3 PERCENT OF GDP



Source: McKinsey Global Institute analysis

The magnitude of dollar depreciation implied by our model is different for US current account deficits of various sizes. The relationship between the required dollar depreciation and the remaining current account deficit is highly non-linear. This is because our model assumes a single, one-time depreciation in the value of the dollar rather than a series of smaller depreciations over time, and uses constant price elasticities of demand. If we modeled a series of smaller depreciations over time, the relationship would likely be more linear. It is unclear whether a gradual depreciation in the dollar would result in a cumulatively larger or smaller depreciation than 30 percent. On the one hand the United States would amass more foreign liabilities over time if the dollar declined slowly, ultimately requiring a larger depreciation to balance the current account. Practically speaking, however, a gradual depreciation would allow companies to adjust capacity and production to changes in relative prices, leading to a smaller overall depreciation.

PUTTING A DEPRECIATION OF THIS MAGNITUDE INTO CONTEXT

Although many countries have seen their currencies fall by 30 percent or more during financial crises, has the dollar ever depreciated by this amount? An analysis of the value of the dollar since the early 1970s, when the Bretton Woods system of exchange-rate management was replaced by floating exchange rates, reveals only one period when it did. Between 1985 and 1988, following several years of large current account deficits averaging 3 percent of GDP, the dollar declined by 30 percent in real trade-weighted terms and by 35 percent in nominal terms (Exhibit 4.3). Overall this episode of depreciation was relatively benign for the US economy and for other countries (although the appreciation of the yen may have contributed to the bursting bubble and decade of stagnation that followed).

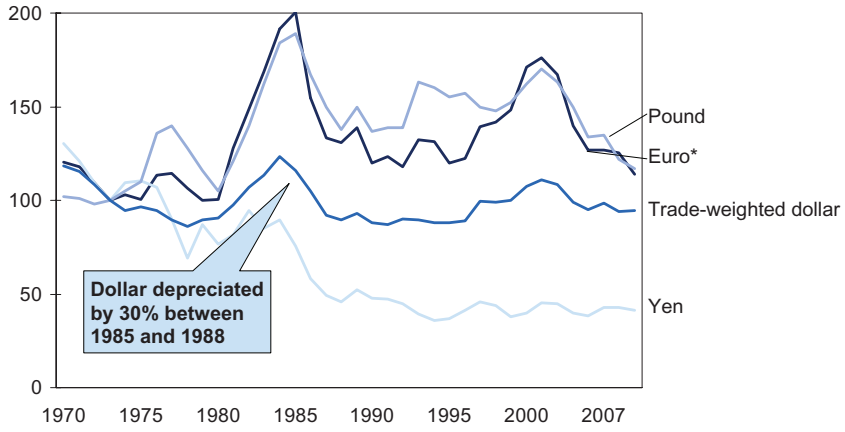
However, during the late 1980s the trade-weighted dollar was at its post-1970s peak. Today's situation is quite different. The dollar is now some 5 percent below its average value since 1970, and a further 30 percent depreciation would leave the dollar well below any level since 1970. It would reach record lows for the period against the yen, pound, and the euro.[5] Significantly reducing the US current account deficit over the next five years would thus require a dollar devaluation of historic proportions. If this happened, what would it mean for US trade?

5 Prior to January 1999, we measure the basket of currencies underlying the euro.

Exhibit 4.3

A 30 PERCENT DOLLAR DEPRECIATION IS ALMOST UNPRECEDENTED SINCE 1970

Exchange rates, period average, 1970–January 2007
1973 = 100



* European Monetary Union currencies prior to 1999.
Source: Federal Reserve; Global Insight; International Monetary Fund; McKinsey Global Institute analysis

THE IMPACT OF DOLLAR DEPRECIATION ON TRADE PATTERNS

A 30 percent trade-weighted depreciation of the dollar could play out in many ways depending on which currencies adjust most. History has shown us that currencies rarely move evenly against one another and this has clearly been the case with the dollar since 2003. Over that time it has fallen in nominal terms by 19 percent against the euro, 22 percent against the pound, and 6 percent against the yuan; it has actually gained 5 percent against the yen.

We therefore consider three scenarios under which the dollar might depreciate using 2005 data as our baseline (Exhibit 4.4). In the first, the dollar depreciates evenly by 33 percent against all other currencies.[6] In the second, Asian countries abandon their de facto peg to the dollar and their currencies appreciate most (although they move in tandem). In the third, Asian countries maintain their de facto dollar pegs and the dollar depreciates only against the euro and other world currencies such as the Canadian dollar and Mexican peso.

Despite some differences there are a number of surprising results that emerge under all three scenarios. Readers interested in the detailed outcomes of each of the three depreciation scenarios should turn to appendix C.

6 Under all scenarios, we calculate the depreciation from December 2005 levels. The depreciation required against the euro would be slightly lower today, given that the dollar depreciated against the euro over the course of 2006.

Exhibit 4.4

MGI CONSIDERED THREE POTENTIAL SCENARIOS UNDER WHICH THE DOLLAR COULD DEPRECIATE

Scenario	Rationale	Dollar depreciation against			
		Asia	Europe	NAFTA	Rest of world
1 "Evenly distributed"	• The dollar falls evenly against all major currencies	33.4	33.4	33.4	33.4
2 "Asia adjusts most"	• The dollar depreciates most against Asian currencies, as Asian central banks allow their currencies to appreciate	45.0	24.7	24.7	24.7
3 "Europe and NAFTA adjust"	• Asian nations maintain current exchange rate policies, so NAFTA, Europe, rest of world adjust	0.0	39.4	39.4	39.4

Source: McKinsey Global Institute analysis

1. The United States would continue to run a large merchandise trade deficit even with a balanced current account

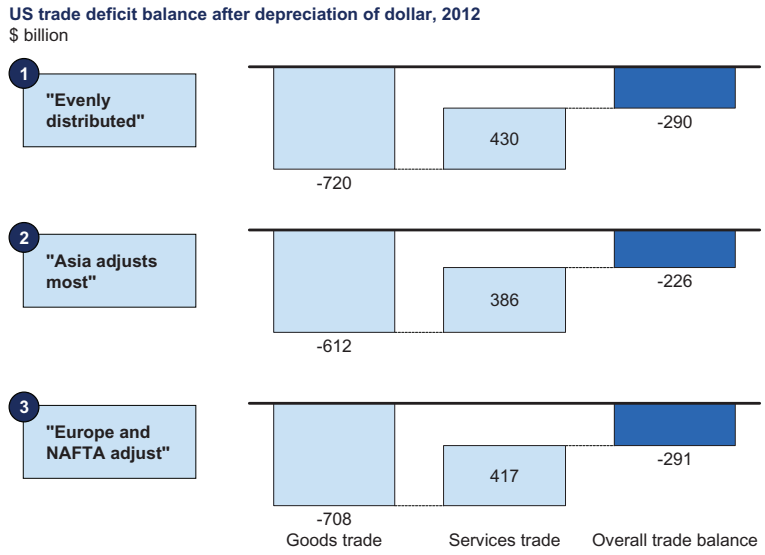
Even with a balanced current account the United States would continue to run an overall trade deficit in 2012 under all scenarios. This would be composed of a $720 billion deficit in merchandise and a $430 billion surplus in services (Exhibit 4.5). It is quite astonishing that the United States could have a balanced current account in 2012 in spite of a $720 billion merchandise trade deficit—roughly the same size as it is today. The United States would be able to finance this large deficit, however, because of a trade surplus in services and a significant turnaround in net foreign income.

The improvement in net foreign income would be due to a transformation in the US net foreign debt position. A depreciation of the dollar would increase the value of US foreign assets abroad while limiting the growth of US foreign liabilities due to the reduction in the current account deficit. Therefore the US net foreign debt position would swing from a projected negative $8.1 trillion in 2012 to a positive $4.9 trillion at the same point. Instead of being a large net debtor to the tune of 46 percent of GDP, the United States would instead be a significant net creditor equal to 28 percent of its GDP (Exhibit 4.6).[7] In addition we assume that the positive spread between the interest that the United States

7 The US net asset position in 2012 varies slightly depending on the scenario.

Exhibit 4.5

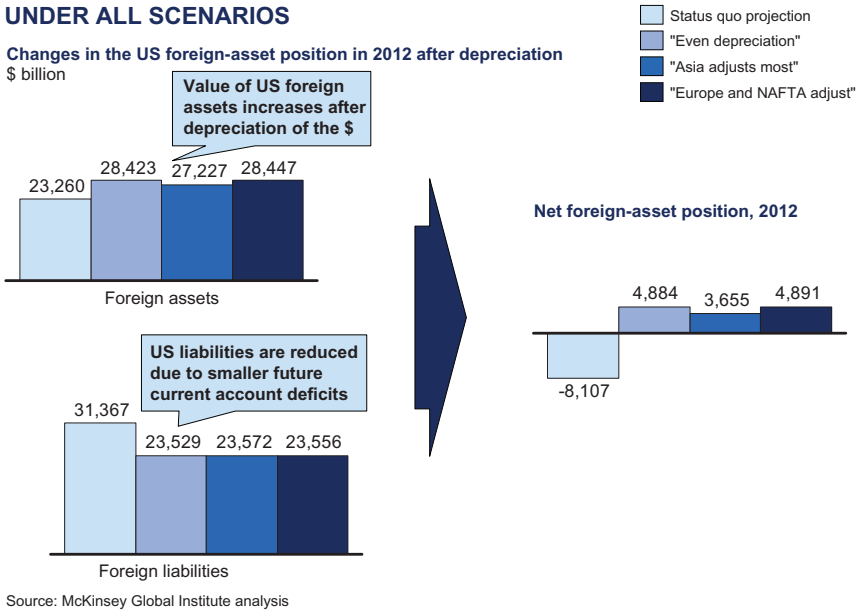
THE US WOULD RUN A TRADE DEFICIT UNDER ALL SCENARIOS



Source: McKinsey Global Institute analysis

Exhibit 4.6

THE UNITED STATES WOULD BECOME A FOREIGN NET CREDITOR UNDER ALL SCENARIOS



Source: McKinsey Global Institute analysis

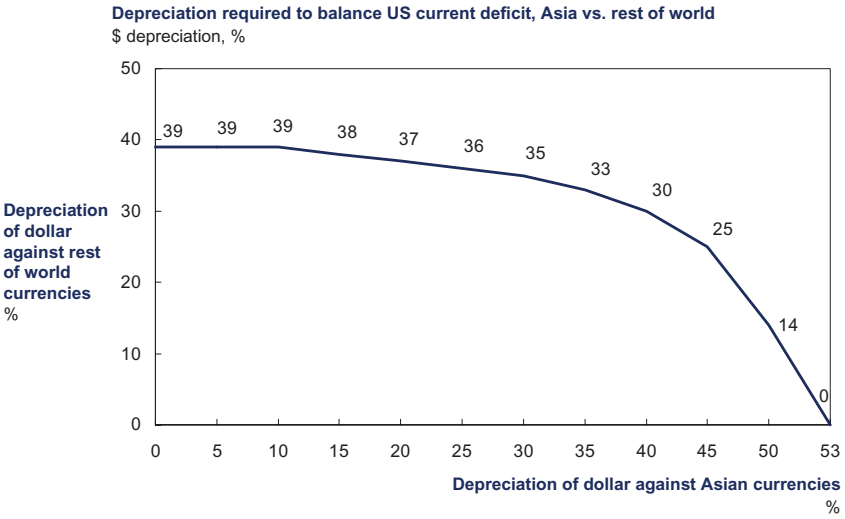
earned on its foreign assets versus liabilities in 2006—which is lower than the 15-year average—will continue. As a result US net foreign income would turn positive, growing to some $435 billion per year by 2012.

2. Asia would play a pivotal role

Actions by Asian nations would determine the size of the US trade adjustment with other countries around the world and the impact on the trade in different product categories. Should China and other Asian countries continue to maintain their current exchange rate policies, the dollar would need to fall by almost 40 percent against the rest of the world to close the current account deficit (Exhibit 4.7). If this were to happen, US export growth to Europe and NAFTA would be a big part of the adjustment. The largest increase would be in US service exports to Europe and exports of machinery and other vehicles to NAFTA.

Exhibit 4.7

ASIAN EXCHANGE-RATE POLICIES DETERMINE DEPRECIATION IN REST OF THE WORLD



Source: McKinsey Global Institute analysis

However, should Asian countries decide to allow their currencies to appreciate, the required dollar depreciation against the rest of the world would be much smaller, at an estimated 25 percent. In this case a reduction in US imports from Asia—manufactured goods, machines, and auto imports in particular—would be a relatively larger part of the overall adjustment. Manufactured-goods imports from China would decline by $54 billion (concentrated in textiles, clothing, and other miscellaneous manufactured items), while automobile imports from Japan would fall by $36 billion, or 75 percent of the current total. From the rest of the

region, telecommunications and electrical equipment and appliances see the largest reduction in imports, totaling $22 billion.

3. Bilateral trade deficit with China would persist under all scenarios

The United States would continue to run a significant bilateral trade deficit with China in 2005 under all three scenarios. Even if the dollar were to appreciate by 45 percent against the yuan, the US trade deficit with China would still be $87 billion; with the dollar depreciating by 33 percent against the yuan, the trade gap would be $159 billion. We calculate that the dollar would need to depreciate by more than 50 percent against the yuan to erase China's trade surplus with the United States.

There are several explanations for the persistence of China's trade surplus with the United States across all our depreciation scenarios. The first is simply that China's exports to the United States today are five times as large as its imports from the United States, a much larger discrepancy than is the case in US trade with other countries. In addition the cost difference in the goods the United States imports from China—such as toys, clothing, and consumer electronics—is too large to be erased even by a very large depreciation. Finally, China imports a significant portion of the components in the goods that it exports and a stronger yuan would reduce the cost of those inputs.

4. The United States would run a trade surplus with NAFTA under all scenarios

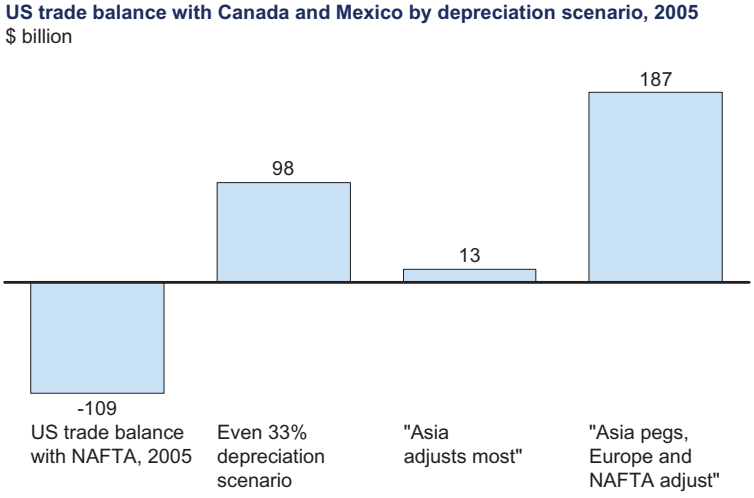
Canada and Mexico would play an important role in the reduction of the US current account deficit. Under all three depreciation scenarios the United States moves from its current trade deficit with its NAFTA partners of $110 billion in 2005 to a trade surplus (Exhibit 4.8). As the dollar started to fall US exports to its two large NAFTA neighbors would rise by more than the rate at which its imports from these countries would decline. This could actually be beneficial to Mexico and Canada since their import costs would be lower while exports remained strong. With the dollar depreciating by 25 percent, for example, US exports to NAFTA would increase by nearly $100 billion while imports would fall by only $30 billion. With any depreciation of more than 25 percent, however, US imports from NAFTA would fall by nearly as much as exports to NAFTA, delivering Canada and Mexico a double shock.

Exports of machinery and other vehicles would make up the vast majority of the export adjustment. The effect would be concentrated particularly in electrical machinery and appliances, industrial machines, and office machines and computers. This means that the NAFTA area as a whole would produce domestically a greater

share of manufactured goods across all categories should the dollar fall, an eventuality that could prove economically beneficial. In the case of imports, mineral fuels imports from Canada would decline. Imports of manufactured goods including furniture, clothing and other miscellaneous manufactured articles from Mexico and Canada would also be lower.

Exhibit 4.8

UNITED STATES WOULD RUN TRADE SURPLUS WITH NAFTA UNDER ALL SCENARIOS



Source: McKinsey Global Institute analysis

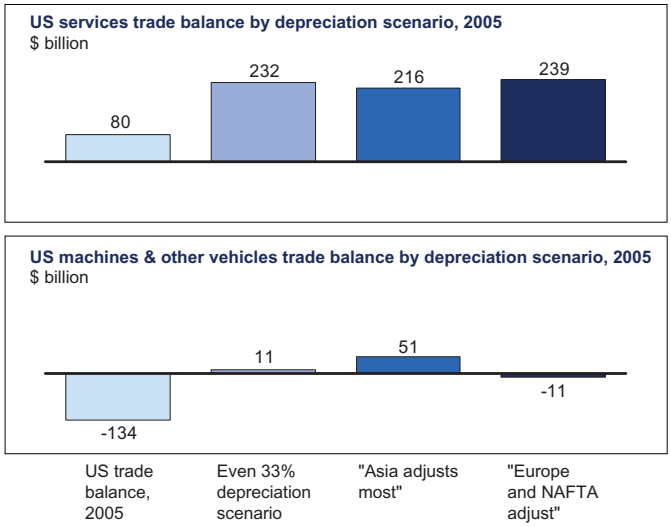
5. US service exports and high-tech machinery would grow the most

The United States would increase its service exports significantly under all scenarios. The US trade surplus in services would increase from its current level of $72 billion to between $216 billion and $240 billion depending on the scenario (Exhibit 4.9). US service exports would grow the least under the scenario in which Asian currencies appreciate most since the United States exports few services to Asia today. The impact on service exports is greatest under the scenario in which the adjustment comes against Europe and NAFTA alone. In this case US exports to Europe increase by $50 billion (from $143 billion today), and to Canada and Mexico by $20 billion (up from $53 billion today).

The product category in which the United States has the greatest potential to move from a large deficit to a surplus across scenarios is that of machinery and other vehicles. This category includes industrial machinery, electrical machinery, medical devices, computers and high-tech, and farm and construction equipment. Under all scenarios the shift would come mostly from a large increase in US exports, which

Exhibit 4.9

US SERVICE AND HIGH-TECH EXPORTS WOULD INCREASE SUBSTANTIALLY UNDER ALL SCENARIOS



Source: McKinsey Global Institute analysis

would grow by $120 billion to $145 billion. When looking further into subcategories we see that electrical machinery, including semiconductors, cathodes, household and surgical equipment, makes up to $50 billion to $60 billion of the change under all scenarios. The next-largest impact would come in power-generating machinery, office machines, telecommunications equipment, and transportation equipment, which would contribute $15 billion to $30 billion each.

This finding highlights the importance of the highly productive and innovative US high-tech sector, crucial both because of its direct exports and because it encourages the creation of cutting-edge products in other sectors, i.e. anything from medical devices to farm machinery.

COULD THE REST OF THE WORLD ADJUST?

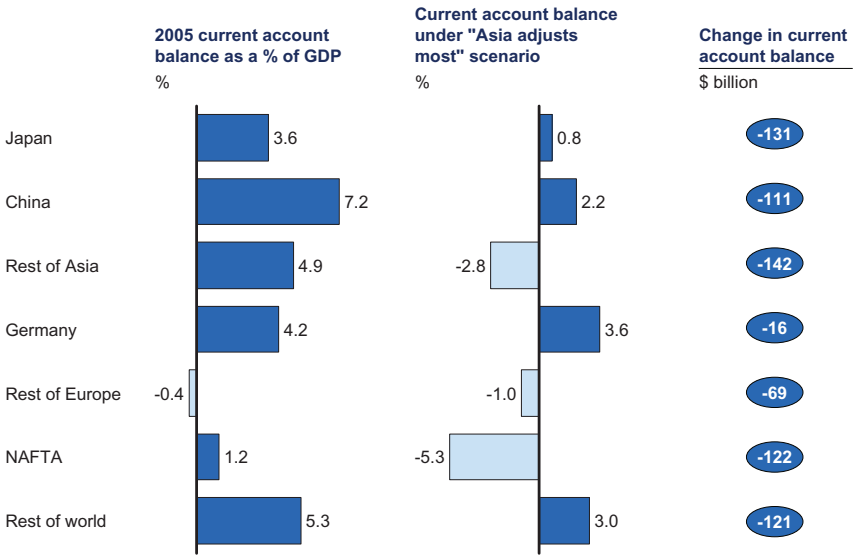
Eliminating the US current account deficit over the next five years would require an enormous shift in global consumption. The United States would need to consume and import less and save more, while other regions—in particular Asia, NAFTA, and Europe—would need to consume and import far more than they do today. In total, roughly $650 billion of US consumption would need to shift to consumers elsewhere in the world.[8]

8 The shift is somewhat smaller than it might be as the US continues to run a trade deficit but makes up for it with positive net foreign income.

An examination of the necessary changes in the current account surpluses of other regions gives an idea of the magnitude of the changes that would be required. The scenario under which Asia's currencies adjust most entails a reduction in China's and Japan's surpluses to 1 to 2 percent of GDP—and a reversal in the current account surpluses in the rest of Asia to become deficits (Exhibit 4.10). Under that scenario NAFTA moves from a small surplus today to a large current account deficit of 5 percent of GDP. The scenario under which Asia's currencies do not adjust against the dollar implies far more dramatic changes for NAFTA and Europe. NAFTA's current account deficit under this scenario would reach implausible levels—15 percent of GDP.

Exhibit 4.10

DOLLAR DEPRECIATION WOULD REQUIRE A GLOBAL SHIFT IN DEMAND



Source:McKinsey Global Institute analysis

The rest of the world would thus not have an easy time adjusting to a 30 percent depreciation of the dollar. Whether the US current account could be balanced—or even reduced to 3 percent of GDP—over the next five years without sparking a major global economic slowdown is debatable. Our model probably overstates the shifts in demand needed, since we do not allow for changes in production patterns or increases in trade between other countries. But still, the potential implications are sobering.

CONCLUSION

Balancing the US current account deficit over the next five years could precipitate a depreciation of the dollar to the lowest level it has reached since the world's current exchange-rate regime came into being in 1973. It would require a major rebalancing of global savings and consumption on a scale not seen before. Other countries would probably find it difficult to adjust.

If this scenario were to come about, the pattern of US trade and competitive advantage would change significantly—but not necessarily in the ways that many people currently expect. The United States would continue to have a large goods trade deficit, particularly with China, although the US services-trade surplus would grow. The overall trade deficit would be offset by a sharp turnaround in US net foreign income. Rather than being a large net debtor to the world, a depreciation of 30 percent would turn the United States into a net creditor. Canada and Mexico would play a large role in the adjustment and would see their cost competitiveness relative to the United States erode.

In the next chapter we explore some of the implications of these findings for business leaders and policy makers.

5. Opportunities and challenges for business and policy makers

While our research shows that the US current account deficit could plausibly continue to grow over the next five years, the United States cannot continue to build up foreign liabilities forever. At some point in the future the US deficit will need to stabilize relative to the size of the economy, and the global pattern of savings and demand will need to rebalance. The magnitude of this adjustment will be very large. Leaders in both the public and private sectors would do well to begin to assess how the adjustment will affect them. What would a larger deficit, followed by a potentially very significant currency adjustment, mean to them and how should they prepare for this possibility?

EXPECT A GRADUAL ADJUSTMENT IN THE DOLLAR

Although currencies can, and do, experience sudden sharp swings in their value, there are several reasons to believe that the adjustment of the US current account deficit and potential depreciation of the dollar are more likely to occur gradually over many years than abruptly.

First is the simple fact that the US current account deficit could grow for several years without US debt becoming so large as to pose a risk of default. Indeed, even if the deficit continued to grow at current rates, US net interest payments would remain under 3 percent of GDP until 2020. This gives the United States enough time—or "breathing space"—to adjust gradually.

Second, it is not in foreign investors' interests to see a sudden change. Global investors have now accumulated a large stock of dollar assets—$16 trillion and growing—and they would suffer considerable losses if the dollar were to

depreciate suddenly or, even worse, overshoot on the downside. Instead, foreign investors have displayed a remarkably stable and growing appetite for dollar assets over the last six years. Capital inflows to the United States have grown despite the bursting of the dot-com bubble in 2000, investor nervousness after the terrorist attacks of 9/11, and the war in Iraq. The $6 billion blow-up of the hedge fund Amaranth in September 2006 did not slow capital inflows to the United States; nor have the rising default rates in the sub-prime lending market. The rising current account deficit itself has not slowed capital inflows. New foreign investments in the United States in 2006 reached $1.8 trillion, their highest level ever.[1]

This is because the United States offers attractive investment opportunities for foreign savers. It has offered better returns on financial assets and investments in companies than has been the case in other mature economies such as Japan and Europe, but lower volatility and better institutional protection than in emerging-market investments. Given that the United States accounts for 28 percent of world GDP and that its financial system assets are 36 percent of the world total, standard portfolio-diversification theories suggest that foreign investors should allocate a similar portion of their investments to dollar assets. The "home bias" that savers around the world show in their investment preferences is still quite strong, although it is diminishing. We are therefore some way off from the limit that dollar assets in foreign portfolios might reach.

Some observers fear that a "sudden stop" of capital inflows to the United States will cause an abrupt change in the value of the dollar and a rise in interest rates. Although many emerging markets have experienced this type of capital inflow volatility, we do not think it is a likely scenario for the United States over the next few years.

Nonetheless, even if adjustment in the US current account were to happen over many years, it would still have enormous repercussions for both businesses and policy makers. They should begin thinking about the implications of a world with a very different pattern of global demand and a potentially dramatically weaker dollar.

BUSINESSES: PLANNING FOR A POST-DEVALUATION WORLD

Top priority for business leaders should be scenario planning for a large dollar depreciation. What would be the impact on a company's balance sheet and income statement if the dollar were to lose thirty percent of its value? How would the

1 See Exhibit 1.7 in chapter 1.

different depreciation scenarios in chapter 4 affect that result? What strategic moves could the company make today to hedge against this possibility? Our research has yielded detailed insights into what a post-devaluation world could look like, including which foreign locations would lose competitiveness under different scenarios, but also where new opportunities may lie. Below we highlight several key findings for businesses as they consider their future.

1. Trade with NAFTA would adjust the most. Due to their relatively low labor costs, Canada and Mexico have enjoyed a cost advantage over the United States for many types of production since the creation of NAFTA in 1993. However, if the dollar were to lose a third of its value, this cost advantage would be erased for many types of production. Companies that have set up plant operations in Canada and Mexico to serve the US market would find they no longer have the same edge on cost. Our research shows that after a large devaluation, exports from the United States to Canada and Mexico could increase by as much as $150 billion per year, particularly in industrial machinery, other manufactured goods, and automobiles. Meanwhile, imports to the United States from NAFTA countries could decrease by nearly the same amount, particularly in manufactured goods, automobiles, and oil from Canada.

2. Many operations in China would retain their cost advantage. Even after a 45 percent depreciation of the dollar against the yuan, China would retain an advantage as an export base for many products. Our research finds that even if the yuan were to move to 5.5 against the dollar from its current level of approximately 8, China would still run a significant trade surplus with the United States. China's cost advantage for manufactured goods such as clothing and furniture is simply too great to be eliminated. In fact, we find that the value of US imports in these two categories would actually increase as the dollar fell because US consumers would still be prepared to pay for Chinese goods that would be slightly more expensive than they are today but would still be cheap in comparison with US prices. Companies expanding into China, both for export production and to serve its rapidly growing consumer market, would find their investments retaining their cost advantage.

3. Other Asian countries would lose competitiveness. If the dollar were to depreciate by 45 percent against other Asian currencies (including Hong Kong, Japan, Korea, Malaysia, Philippines, Singapore, Taiwan, and Thailand), US trade with those countries would swing from a current deficit of $111 billion to a surplus of $163 billion—a shift of $273 billion. Korea, Japan, and Taiwan would be hardest hit, accounting for 85 percent of the adjustment. The biggest improvement across product categories would be in machines and other vehicles, which

include electrical appliances, computers, and telecommunications equipment. The United States would also reduce its imports of Japanese and Korean cars by 70 percent, giving further incentives to Toyota, Kia, and other Asian automakers to set up domestic facilities in the United States.

4. Service exports would provide an opportunity for growth. Our research shows that US service exports could increase by as much as $100 billion, or 28 percent, from 2006 levels if the dollar were to experience a 30 percent decline. This is true under all three dollar-depreciation scenarios we have described. The United States today runs trade surpluses in a variety of service businesses including financial services, business services (including consulting, accounting, and computer and information services), travel, education, and telecommunication services. These will be even more competitive internationally as the global imbalances in world demand adjust. Companies with service businesses should therefore equip themselves to take advantage of this opportunity. This would involve managing and growing international operations effectively, acquiring the necessary language and cultural capabilities, and tailoring services to meet local regulatory requirements and consumer preferences. Companies across the board should consider adjacent service businesses which they might enter.

5. The United States would become a more competitive location for high-tech and cutting-edge machinery. US exports in high-tech and high-value machinery and other vehicles could also grow dramatically in a post-devaluation world—by some $115 billion annually. This would include not just computers and semi-conductors, but other machines that deploy technology including surgical equipment and medical devices, tractors equipped with computerized systems and satellite communications, home air-conditioning systems, and office copiers. Companies offering these products should be prepared to adjust capacity and adapt their products to meet potentially growing foreign demand.

POLICY MAKERS: BILATERAL TRADE BALANCES GIVE A DISTORTED VIEW

Policy makers should think about the US current deficit without the distraction of the various red herrings now in the public debate.

One of these is an undue focus on the bilateral trade deficit with China. Our research has shown that even a very large appreciation in the yuan relative to the dollar would not close the US trade deficit with China, although it would reduce it substantially.[2] Many other opportunities exist for the United States to improve its

2 We model a 31 percent appreciation of the yuan, which would put it at roughly 5.5 yuan = $1.

trade balance without seeking to eliminate its deficit with China, an approach that is neither reasonable nor necessary. In a world of rapidly integrating economies, bilateral trade deficits should not be the focus.

Reducing oil prices is not the answer to making the US current account deficit sustainable either. Although the rise in the world oil price accounted for 60 percent of the growth in the US trade deficit between 2004 and 2006, the United States runs a trade deficit in nearly every product category. Our research shows that at any reasonable oil-price assumption the United States would still have a large deficit, all else being equal. Moreover, high oil prices generate the capital outflows from other countries, notably the Middle East, that make funding the US deficit more likely.

Another red herring is US agricultural exports. US legislators will soon be voting on another five-year US farm bill, which could include billions of dollars of subsidies to farmers to grow crops such as corn, wheat, soybeans, rice, and cotton. This bill cannot be justified on trade grounds alone since agricultural exports amounted to only $96 billion in 2006. Although it is a large figure, it accounts for just 8 percent of US exports.

US policy makers should instead turn their attention towards ensuring that the United States retains its strong competitive advantage in areas where exports would grow if the dollar were to depreciate, such as services and high-tech manufacturing. Service exports are a key example, since there is potential for the United States to triple its services-trade surplus from $72 billion in 2006 to $240 billion. To enable this shift, trade negotiators should continue to try to reach global agreement on the removal of tariff and non-tariff barriers to trade in services. However, a long-term effort is also needed on a broad front to break down the language, cultural, and regulatory differences with other countries that currently act as an even bigger constraint on the growth of service exports than outright trade barriers. Foreign languages should become a bigger part of the US school curriculum beginning in elementary school, and studying languages abroad should be encouraged.

High-tech manufacturing is another area in which US exports could grow. As we have noted, the US trade deficit in these categories could turn into a surplus, showing an improvement of up to $273 billion. Policy makers should ensure that the United States retains a competitive environment in these sectors since competition is ultimately what gives companies the incentive to develop cutting-edge products and continuously enhance their productivity.

Finally, policy makers should realize that trade with NAFTA is as important as trade with Asia and Europe. The largest US trading partners are those with which it shares its borders, and under all depreciation scenarios the US trade balance with these neighbors improves dramatically. But maintaining healthy economies throughout the region is important for everyone, and a large appreciation of their currencies could have negative consequences for Canada and Mexico. The United States should thus work with Canada and Mexico to develop their competitive advantages even as it continues enabling trade between NAFTA countries. Such investments will benefit the US economy in the long run.

A. Technical notes

These technical notes provide more detail on some of the methodologies employed in this report. We discuss the following topics below:

1. Estimating the value added of imports from different countries

2. Estimating the true source of capital inflows from other countries

3. Methodology for projecting US current account deficit growth

4. Translating oil revenues into net capital outflows for oil-exporting economies

1. ESTIMATING THE VALUE ADDED OF IMPORTS FROM OTHER COUNTRIES

In 2006, the United States imported $1,845 billion worth of goods. The Bureau of Economic Analysis and United States International Trade Commission record these imports on a bilateral basis. The largest countries to import to the United States were Canada ($303 billion), China ($297 billion), Mexico ($197 billion), and Japan ($148 billion).

This direct view of imports, however, does not necessarily give a complete view of the true origin of US imports. This is because each item imported by any country comprises three components: domestic inputs, imported inputs, and value-added activities. While domestic inputs and value-added activities describe the domestic components and labor that a country has put into an item it exports, imported inputs describe the parts of an export that are actually sourced from abroad. For example, if an automobile factory imports tires and engines from abroad to complete its cars and trucks, then those components are considered imported

inputs. In some countries—particularly those with cheap labor—imported inputs form a large part of the value of the final item exported. Thus, a better way to attribute the value of US imports is to re-attribute all import inputs to their country of origin rather than to the final assembly location of goods before they arrive in the United States.

MGI considered the three largest US trading partners in goods—Canada, China, and Mexico—in order to develop a better picture of bilateral imports into the United States. We chose these three because Canada is the largest and thus most important trading partner, and China and Mexico are often regarded as "assembly locations" for factories that assemble imported components for export.

For each of the three countries we first determine what value as a percentage of total exports can be attributed to import inputs. For Canada, we found that 16 percent of its exports were attributable to import inputs.[1] For China, the proportion was 35 percent.[2] To arrive at a figure for Mexico, we leveraged previous MGI work on the Mexican consumer electronics sector that revealed the value of import inputs in the sector to be 70 percent.[3] However, recent Mexican central-bank data suggest that value-added activities are on average around 25 percent (compared with the 15 percent MGI found in consumer electronics). Given that the proportion of input imports is likely to be high for electronics, we estimate that import inputs overall are around 50 percent of the value of exports, leaving 25 percent for domestic inputs and 25 percent for value-added activities.

Armed with these import input percentages, we then determine the value of US imports from the three countries that are import inputs and re-attribute them to other countries around the world (Exhibit A.1). We do this by looking at the bilateral trade picture for Canada, Mexico, and China to determine from where they import. We then assume that the import inputs are equal in proportion to the country's overall imports and re-attribute accordingly. For example, in 2006 Mexico exported $197 billion to the United States. Of this, we assume 50 percent are import inputs, or $99 billion. Of the $99 billion, we know that Mexico imports 7 percent of its overall goods from China, so we assume that 7 percent of the $99 billion, or $7 billion, are import inputs from China. We thus attribute $7 billion of Mexico's exports to the United States to China.

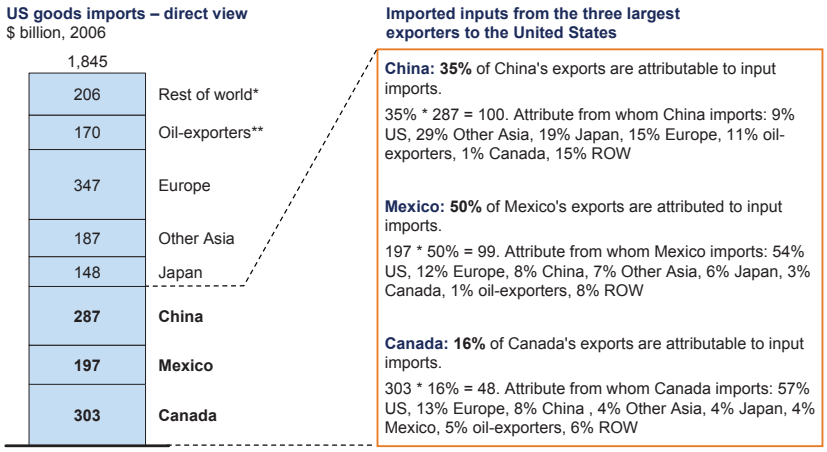
1 Erin Weir, *Lies, Damned Lies, and Trade Statistics: The Import Content of Canadian Exports*, September 2005

2 Dean *et al., Measuring the Vertical Specialization in Chinese Trade*, January, 2007

3 Diana Farrell *et al., New Horizons: Multinational Company Investment in Developing Economies*, October 2003

Exhibit A.1

THE THREE LARGEST EXPORTERS TO THE UNITED STATES ADD DIFFERENT AMOUNTS OF VALUE TO THE GOODS THAT THEY EXPORT



* Includes Latin America, Caribbean,

** Includes Algeria, Indonesia, Iraq, Iran, Nigeria, Norway, Kuwait, Libya, Oman, Russia, Saudi Arabia, Syria, United Arab Emirates, Venezuela and Yemen.

Source: Bureau of Economic Analysis; United States International Trade Commission; Dean et al., Measuring the Vertical Specialization in Chinese Trade, USITC, January 2007; Mexican Central Bank; Weir, Erin, Lies, Damned Lies, and Trade Statistics: The Import Content of Canadian Exports, University of Alberta, September 2005; McKinsey Global Institute analysis

2. ESTIMATING TRUE SOURCE OF CAPITAL INFLOWS FROM OTHER COUNTRIES

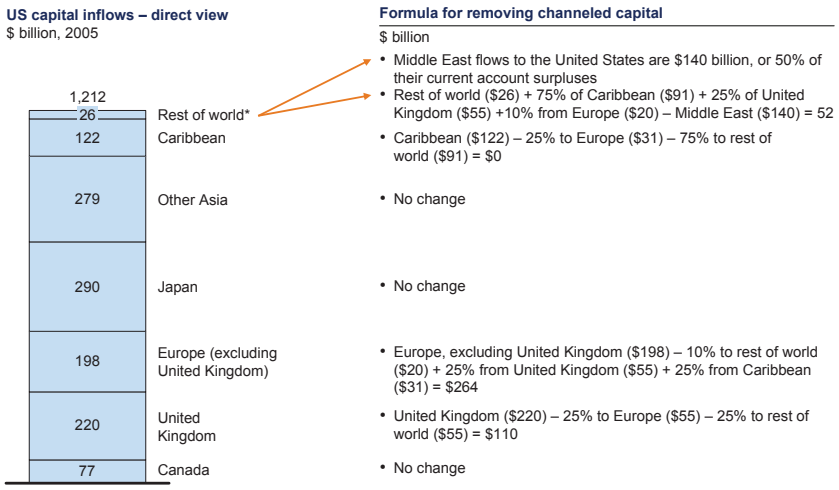
In 2005, foreigners invested $1.2 trillion in the United States in the form of foreign direct investment into companies, purchases of equity, private debt, and government debt securities, and lending and deposits into the United States by banks, corporations, and individuals. The US Bureau of Economic Analysis collects data on the countries from which these investments come (the left side of Exhibit A.2).

However, this representation of the source of capital inflows to the United States is not entirely accurate because a substantial amount of investment is channeled through financial centers such as London and the Caribbean. For instance, when a German resident establishes an account with a broker in London and then purchases US debt securities, the capital inflow into the United States is recorded as being from the United Kingdom, not Germany. The true source of the funds coming through London and the Caribbean is not known precisely, but much of it comes from the Middle East, European countries, and Latin America.

An accurate bilateral view of capital inflows is important for understanding which investors in the world are putting money directly into the United States. If such investors' appetite for US financial assets were to change, the United States could face reduced capital inflows and higher interest rates. We therefore developed the following methodology to estimate the true source of these funds:

Exhibit A.2

THE CARIBBEAN AND UNITED KINGDOM SEEM TO BE BIG SOURCES OF US CAPITAL INFLOWS, BUT CHANNEL FUNDS FROM ELSEWHERE



* Includes Latin America, Africa, Middle East, and unattributed.
Source: Bureau of Economic Analysis; US Treasury Department; McKinsey Global Institute analysis

- **London:** Of the $220 billion of capital flows from London into the United States in 2005, we assume that half is from British residents and the remainder is from foreign investors. We base this assumption on the fact that capital inflows and outflows relative to GDP are twice as high for the United Kingdom as for other European economies. We therefore assume that half of UK capital inflows and outflows derive from its role as an intermediary. Of the $110 billion of investments coming from London on behalf of foreign investors, we assume that half of these are from European investors and half are from investors in the rest of the world. We do this because, when examining cross-border financial holdings for the United Kingdom, we note that just over 50 percent of its holdings are with Europe. Given the likelihood of some correlation between stock and flows, we assume 50 percent of the flows channeled through London come from Europe.

- **Europe:** Switzerland and Luxembourg also play the role of financial hubs and private-banking centers, accounting for just over 20 percent of cross-border capital flows in Europe. We know from other MGI research that 50 percent of eurozone flows are from other eurozone countries.[4] Assuming this ratio is the same for Switzerland and Luxembourg, we then assume that 10 percent (i.e.

4 *Mapping the Global Capital Market Third Annual Report*, McKinsey Global Institute, January 2007.

50 percent x 20 percent) of European flows come from the rest of the world. We allocate these to the "rest of the world" category.

- **Caribbean:** Given the small economies and domestic financial systems within the Caribbean, we assume that 100 percent of the $122 billion in capital inflows into the United States from the Caribbean comes from investors outside the Caribbean. We know that these come from investors in the Middle East, Latin America, and Europe. We assume that 25 percent of capital flows to the United States originate in Europe, reflecting its share of global financial wealth. We attribute the remaining 75 percent to the "rest of the world".

- **Rest of the world and Middle East:** We have now allocated capital flows from London, the Caribbean, and Europe to the "rest of the world" category, bringing their combined total to $192 billion. The large missing category in our data is the Middle East, which we know invests heavily in dollar assets. We assume that 50 percent of the current account surpluses from the Middle East each year are invested in US assets. This is in line with published figures showing that 50 percent of Middle Eastern foreign assets are held in US assets.[5] Since the Middle East's current account surpluses totaled $280 billion in 2005, we assume that $140 billion of capital inflows to the United States come from the Middle East. We subtract this from the "rest of the world", leaving this grouping with $52 billion.

We find that Asian investors were by far the largest investors in US assets with a total of $469 billion in investment. European investors were the next largest, with $374 billion, and the Middle East was next with $140 billion (Exhibit A.3).

3. METHODOLOGY FOR PROJECTING CURRENT ACCOUNT DEFICIT GROWTH

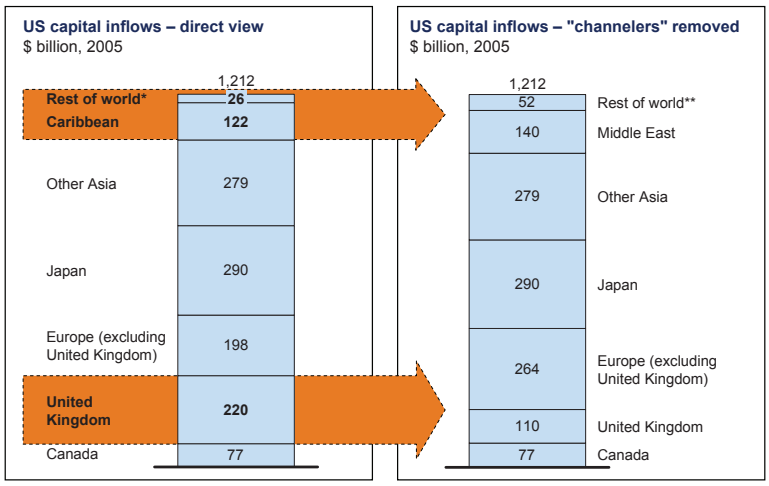
We base our projection of the US current account deficit through 2012 on its three major components: the trade deficit, net income transfers, and net foreign-interest income.

To project the US trade deficit, we build a model of demand for US imports and exports, based on income elasticities for the United States and the rest of the world and projected GDP growth rates for each country. Our GDP growth rate projections come from Global Insight. Our estimates of income elasticities for the United States and the rest of the world come from Catherine Mann's book on

5 Treasury Department; BIS; Ramin Toloui, *Petrodollars, Asset Prices, and the Global Financial System*, January 2007.

Exhibit A.3

MIDDLE EAST AND EUROPE ARE LARGER SOURCES OF CAPITAL WHEN ACCOUNTING FOR "CHANNELED" FUNDS



* Includes Latin America, Africa, Middle East and unattributed.
** Includes Latin America, Caribbean, Africa and unattributed.
Note: Figures may not sum to 100% due to rounding.
Source: Bureau of Economic Analysis; US Treasury Department; McKinsey Global Institute analysis

the US trade deficit.[6] These elasticities demonstrate an asymmetry, in which US imports respond more strongly to US income growth than do US exports to foreign income growth. Although some economists debate whether there is actually an asymmetry in income elasticities across countries, we believe that the weight of the evidence supports this view.[7] Moreover, since our goal is to understand how big the US current account deficit could get, using this assumption produces a larger deficit. Our projection of a $1.6 trillion deficit in 2012 is thus at the high end of the spectrum.

To project US net foreign income, we build a model that takes into account the US net foreign asset position each year, the returns earned on assets and liabilities, and the additional assets and liabilities accumulated that year. Specifically, we take the US net foreign-asset position at the end of the previous year and then apply a 5.5 percent return on assets and a 4.6 percent return on liabilities, implying a spread of 0.9 percent. This spread reflects 2006 returns and is more conservative than the average spread of 1.3 percent since 1990. Thus, our net income figures are more negative than if we used the historic average since 1990. To calculate the US net foreign-asset position each year, we take the previous year's foreign assets and liabilities and apply the average appreciation

6 These elasticities are estimated separately for exports and imports of US goods and services. See Catherine Mann, *Is the US Trade Deficit Sustainable?*, 1999.

7 *Ibid.*

of those assets and liabilities based on the previous 15-year average. We then add the additional foreign assets and liabilities that are acquired over the course of the year based on the last year's current account deficit.

Finally, to project net transfer payments we use the average growth rate of transfer receipts and payments over the last 15 years—both of which have been remarkably constant.

4. TRANSLATING OIL REVENUES INTO NET CAPITAL OUTFLOWS FOR OIL-EXPORTING ECONOMIES

Our base-case projection of net outflows of petrodollars from oil-exporting economies in 2012 is $387 billion, somewhat lower than the $484 billion in 2006. Unlike Europe and Asia—whose capital outflows in 2012 are much larger than in 2006—this suggests a decrease in net outflows from oil-exporting countries. The reason for the decline in net outflows is that oil-exporters' net outflows are closely tied to the price of oil. To estimate net outflows from oil-exporters, we use MGI's proprietary model on global energy demand and assume an oil price of $50 per barrel, compared with nearly $60 per barrel in 2006.[8] This price difference alters the oil revenues earned by oil-exporting countries.

Then, on the basis of historical trends in each country, we assess what percentage of their oil revenues they are likely to spend domestically and what percentage they would tend to "recycle" as capital outflows to the rest of the world. To determine exactly what percentage of oil revenues would be recycled, we build a model in which each country has a baseline spending level on domestic investments, regardless of the oil price. We can then translate this level of spending into a price per barrel of oil. As the oil price rises, countries spend a portion of the additional revenue above the threshold and invest the remainder in assets abroad (Exhibit A.4). Historically, some thriftier countries like Kuwait and Norway have lower domestic spending. In this way, we can estimate the future capital outflows from oil exporters at different oil price levels, a methodology developed by Brad Setser.[9]

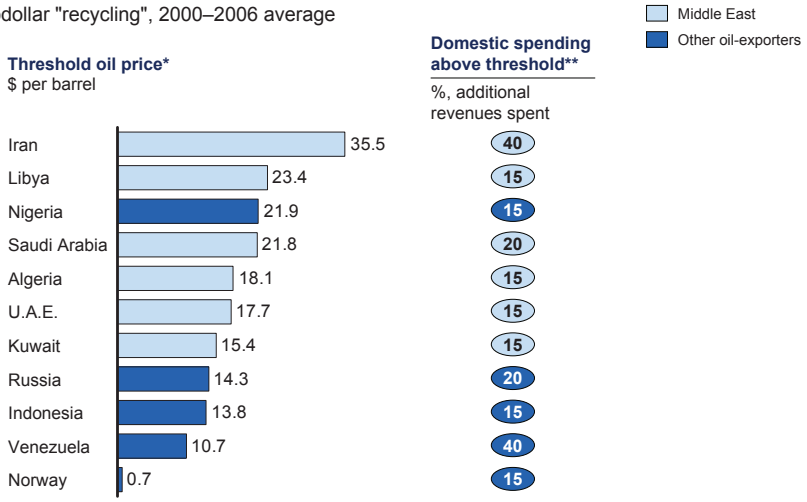
8 *Curbing Global Energy Demand: The Energy Productivity Opportunity*, McKinsey Global Institute, May 2007.

9 Brad Setser, *Oil and Global Adjustment*, 2007.

Exhibit A.4

OIL EXPORTERS VARY IN THE SHARE OF OIL REVENUES CONSUMED

Petrodollar "recycling", 2000–2006 average



* When oil price is below this threshold, country spends all oil revenue on domestic investments.

** Above threshold oil price, percent of additional revenues spent on domestic investment; remainder is invested abroad.

Source: Brad Setser, Oil and Global Adjustment, February 2007; MGI GEM Model; MGI Global Capital-Flows Database; McKinsey Global Institute analysis

B. Methodology for modeling a dollar depreciation and impact on the current account

To determine the impact of dollar depreciation on the US current account deficit, we model the direct impact of dollar depreciation on US imports and exports using import-price elasticities, and on US net income using the composition of US foreign assets and liabilities and historic rates of return. Thus we use a partial-equilibrium approach, abstracting from the dynamic interactions that would follow from a change in prices and from resulting second- and third-order effects.

IMPACT OF DEPRECIATION ON US TRADE

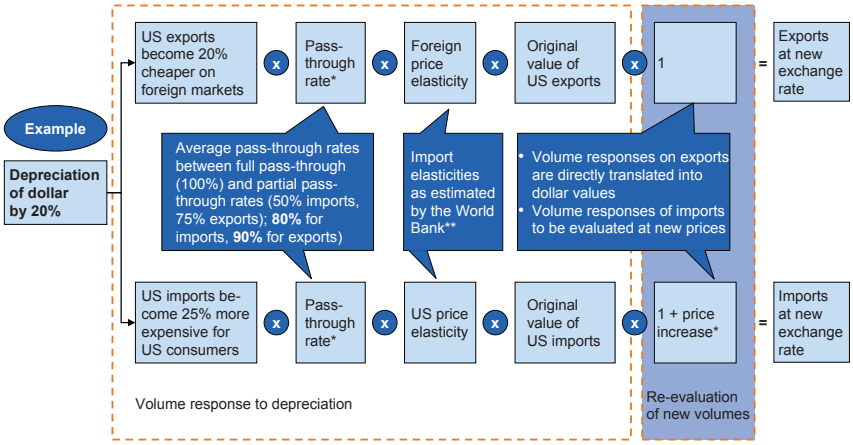
Using import-price elasticities for 30 product categories in 100 countries (or 3,000 individual elasticities in total) developed by the World Bank, we can calculate the effect of dollar depreciation on US imports and exports (Exhibit B.1). These price elasticities measure how demand for imports of each product develops in response to a change in its price. And they thus allow us to measure how US consumers respond to higher prices for imports after dollar depreciation, and how foreign consumers in different countries respond to lower prices for US exports.

The degree to which prices of imports and exports change after a dollar depreciation depends on the "pass-through" rate—the extent to which exchange-rate changes translate into price changes for the consumer. Pass-through rates may vary between zero—implying that the importer or producer absorbs the full cost of exchange rate changes—and 100 percent—implying that importers or producers pass the full price change from the exchange rate depreciation on to customers in order to maintain their own profit margins. In practice, researchers have found

that exporters often absorb a substantial portion of exchange-rate movements in the short-run, particularly those who export to the United States, and that pass-through rates for the United States are 50 percent for imports and 80 percent for exports.[10] In the long-run, however, our business experience indicates that once prices approach marginal cost it would be impossible for exporters to absorb exchange-rate changes. To accommodate both historical pass-through rates and our premise that full pass-through would have to occur eventually with a large depreciation, we therefore apply for the United States a partial pass-through rate of 75 percent for imports and 90 percent for exports. It is important to note this assumption, because the required depreciation is sensitive to the pass-through rate used. Our assumption yields a required 37 percent depreciation to achieve balanced trade. Applying a 100 percent pass-through rate would require only a 29 percent depreciation, while the historic partial pass-through rates we have noted would need a 50 percent depreciation.

Exhibit B.1

MGI USES IMPORT-PRICE ELASTICITIES TO ANALYZE THE IMPACT OF DOLLAR DEPRECIATION ON THE US TRADE DEFICIT



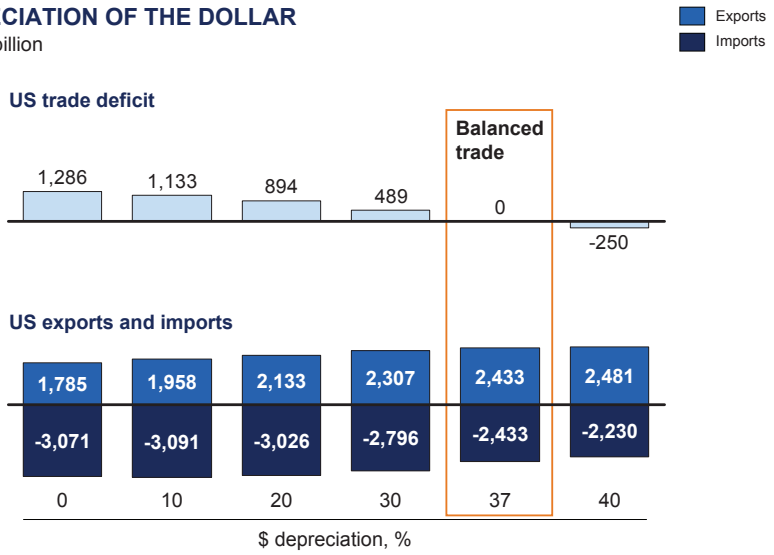
* Assumes that companies do not pass on the entire increased cost from exchange rate changes.
** Based on World Bank estimates of 3,000 import elasticities (30 product categories for 100 countries) in 2004.
Source: McKinsey Global Institute analysis

Applying our partial pass-through rates and elasticities, we model the effect of depreciation as a one-time shock—a single adjustment at year-end 2005 (the last full year of data in our model). We then extrapolate the adjusted trade balance up to 2012. We find that, to close the trade deficit fully by 2012, the dollar would need to depreciate by 37 percent from its level at the end of 2005 (Exhibit B.2).

10 William Cline, *The United States as a Debtor Nation: Risks and Policy Reform*, 2005.

Exhibit B.2

US TRADE WOULD BE BALANCED IN 2012 WITH A 37 PERCENT DEPRECIATION OF THE DOLLAR
2012, $ billion



Source: McKinsey Global Institute analysis

The relationship between the required dollar depreciation and the remaining current account deficit is highly non-linear. This is because our model assumes a single, one-time depreciation in the value of the dollar rather than a series of smaller depreciations over time, and uses constant price elasticities of demand. If we modeled a series of smaller depreciations over time, the relationship would probably be more linear. It is unclear whether a gradual depreciation in the dollar would result in a cumulatively larger or smaller depreciation than 30 percent. On the one hand, if the dollar declined slowly the United States would amass more foreign liabilities over time, ultimately requiring a larger depreciation to balance the current account. Practically speaking, however, a gradual depreciation would allow companies to adjust capacity and production to changes in relative prices, leading to a smaller overall depreciation.

IMPACT OF DEPRECIATION ON NET TRANSFER PAYMENTS AND NET FOREIGN INCOME

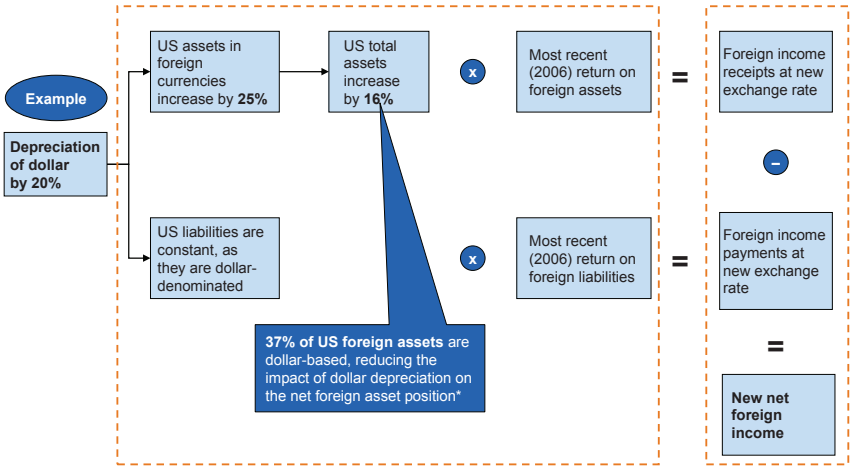
Dollar depreciation has no effect on net transfer payments. This is because most of the US net transfer-payment balance comprises remittances that workers send abroad plus tax payments to foreign governments. Historically, these transfers have grown in line with US GDP and have not been sensitive to exchange-rate movements.

However, dollar depreciation affects US net foreign income in future years in two ways (Exhibit B.3). First, it increases the value of US assets abroad that are denominated in foreign currencies. Historically, we find this for 63 percent of US foreign assets and, for this reason, we use this figure in our model.[11] In addition, dollar depreciation affects net foreign liabilities in our model by reducing the accumulation of additional liabilities in future years. To project net foreign income to 2012, we therefore take the adjusted value of US foreign assets and liabilities after a depreciation and then apply the average historical appreciation rate to derive the next year's values. We then add in the implied new assets (capital outflows) and liabilities (capital inflows) acquired, whose balance is, by definition, equal to the current account each year; and then apply the average rate of return to yield the year's foreign-income payments and receipts, or net income.

We find that a depreciation of 25 percent would reduce the US net foreign debt to zero (Exhibit B.4).

Exhibit B.3

DOLLAR DEPRECIATION INCREASES THE VALUE OF US FOREIGN ASSETS

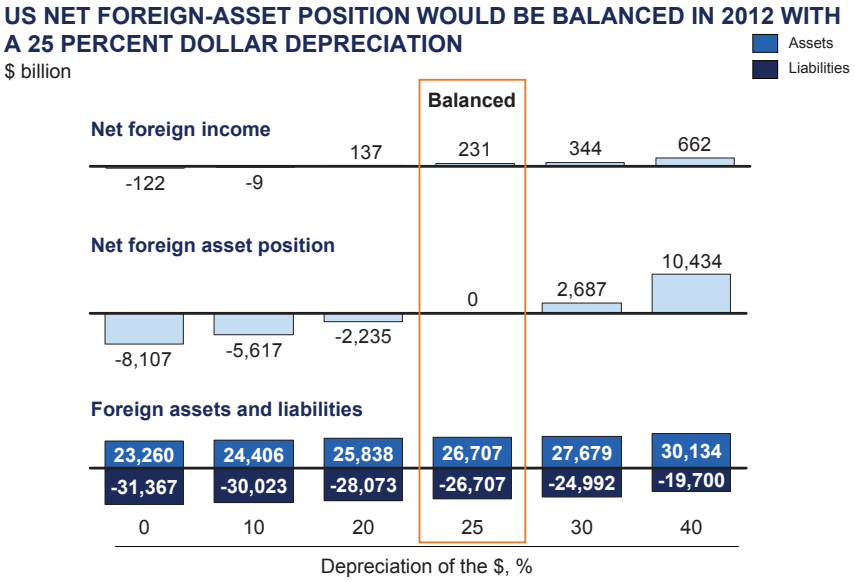


* William Cline, The United States as a Debtor Nation, September 2005.

Source: McKinsey Global Institute analysis

11 We take this figure from William Cline, *The United States as a Debtor Nation: Risks and Policy Reform*, 2005.

Exhibit B.4



Source: McKinsey Global Institute analysis

KEY ASSUMPTIONS IN THE MODEL

Several key assumptions inherent in the model affect our results. We believe these assumptions to be reasonable, but readers should be aware of them.

- **Five-year time horizon:** We calculate the amount of dollar depreciation needed to balance the US current account—or reduce it to 3 percent of GDP—over a five-year time horizon. This is a relatively short period, given the very large size of the deficit today, and requires a large dollar depreciation. We choose five years, however, because making economic projections over longer time horizons is highly uncertain given the many variables that could change in intervening years.

- **One-time depreciation:** Our model looks at the impact of a one-time shock to the exchange rate, not a gradual depreciation over time. This assumption is necessary because we use a static approach rather than a dynamic model. If the dollar were to depreciate gradually over many years, the cumulative depreciation may be larger or smaller than the 30 percent we calculate. On one hand, a single depreciation allows the US net foreign asset position to improve immediately and generate positive net foreign income over remaining years. This additional income offsets the trade deficit. A gradual deprecation would therefore need to be larger. However, on the trade side, a

gradual adjustment may lead to a lower overall depreciation because it would allow companies to change their investment and production patterns, and consumers to substitute among goods.

- **No-overshooting:** In our model, we do not allow for the dollar to overshoot the level needed to balance the current account deficit. In reality, if a dollar adjustment took place due to a shock, investors could panic and cause an overshooting in the exchange rates. While this is possible, it would probably be only a temporary effect. Moreover, we have no basis for determining the potential overshoot. We thus look only at the dollar level in five years at a balanced current account.

- **Pass-through rates:** We apply partial pass-through rates (75 percent for imports, 90 percent for exports). Research has shown that actual pass-through rates are lower than this in the United States, particularly in the short run. Our business experience indicates, however, that over a five-year time horizon, companies would need to pass through the majority of costs to maintain profit margins. We therefore use average pass-through rates between 100 percent and the historically observed short-term rates observed in the United States.

- **Price elasticities:** We apply historic elasticities from the World Bank, estimated for 30 different product categories and 100 countries. In the April 2007 *World Economic Outlook*, IMF research suggests that price elasticities may in fact be higher than historic data suggests, as world markets integrate and consumers have more options to substitute consumption both domestically and from imported goods.[12] If this is indeed the case, less dollar depreciation would be needed to balance the US current account, since consumers would be more responsive to prices changes in imported goods. However, more research is needed to verify this.

- **No change in US interest rates after depreciation:** A large depreciation in the dollar might necessitate higher interest rates in the United States in order to continue to attract foreign investment. This would reduce the positive spread on foreign assets versus liabilities that the United States has historically earned. In our partial-equilibrium approach, we hold interest rates constant, thus enabling the United States to continue to earn its positive spread and generate higher net foreign income.

12 IMF, *World Economic Outlook 2007*, April 2007.

- **Superior returns on FDI investments maintained after dollar depreciation:** A fall in the value of the dollar may reduce the high returns that US companies have historically earned on their investments abroad. However, since the United States has maintained its ability to earn superior returns over time in spite of variations in the value of the dollar, we hold its spread on assets versus liabilities as constant.

- **No second- or third-order effects:** Because we are interested in understanding the direct effects of dollar depreciation on the US current account, we use a static partial-equilibrium approach that only considers bilateral changes in trade between the United States and other countries, and between the dollar and other currencies. For simplicity, we set aside the dynamic effects that a change in US trade or the dollar exchange rate might have on trade between other countries and regions, and do not allow for substitution of production across countries. Similarly, we do not consider directly the changes required in savings or investment behaviors in other countries. Over many years therefore, were these dynamic effects to play out, the resulting dollar depreciation could be less than we estimate. Over our five-year time horizon, however, these factors would be less likely to make a difference.

On balance, the countervailing effects of our assumptions may well cancel out and therefore they do not distort our results. For instance, although our pass-through rates may be higher than those used by other economists, our price elasticities may be understated.

Indeed, we find that our results are in line with those of other economists. In spite of modeling differences—particularly around our use of partial-equilibrium and a single shock in 2005—the figures are actually quite similar. For instance, using a general equilibrium model, Rogoff and Obstfeld find that a 22–32 percent depreciation from January 2007 exchange rates would be required compared with MGI's 30 percent. Using different assumptions, particularly around symmetric income elasticities, William Cline finds that a 16 percent depreciation from January 2007 would reduce the current account deficit to 3 percent of GDP. If MGI were to apply the same assumptions, our model would show that a 20 percent depreciation would be required.

C. Scenarios for dollar depreciation and impact on US trade patterns

We base our dollar-depreciation scenarios on a 2005 baseline and a 33 percent trade-weighted depreciation from the dollar's December 2005 level. This depreciation could play out in many ways, depending on which currencies adjust the most. We consider three possible scenarios. Under the first, we model the effect of an even 33.4 percent depreciation against the currencies of all trading partners. Under the second, we assume that the dollar adjusts most against Asian nations as they adopt more flexible exchange-rate policies. In this case, the dollar depreciates by 45 percent against Asian currencies, and 24.7 percent against the euro and all other currencies.[13] Under the third scenario, we assume that Asian currencies do not adjust and that the dollar depreciates by 39.4 percent against the euro and other currencies. Here we discuss the impact of these scenarios on US trade patterns.

SCENARIO 1: AN EVEN DEPRECIATION AGAINST ALL US TRADE PARTNERS

If the dollar were to depreciate evenly by 33 percent against all trade partners, the largest positive impact would have been on the US trade balance with NAFTA partners Canada and Mexico, which would have improved by $207 billion and moved from deficit to surplus (Exhibit C.1). This swing would have been due mainly to a $126 billion increase in US exports. Of this total, machines and vehicles (excluding automobiles) would have been the largest contributor with $40 billion, followed by a $25 billion increase in manufactured-goods exports. The US automobile trade with NAFTA would have improved by $30 billion, made up of

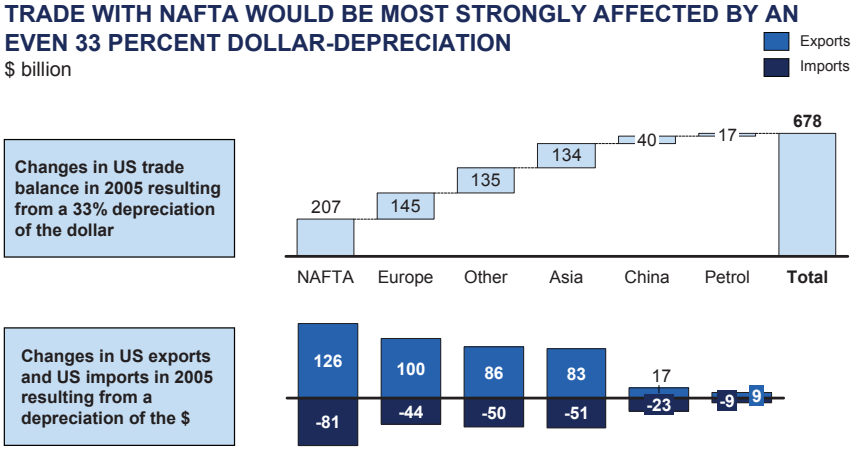
13 See Exhibit 4.6 in Chapter 4 for the dollar depreciation against Asian currencies versus the rest of the world required to balance the US current account. This relationship determines the size of depreciations we model in scenarios 2 and 3.

$13 billion fewer imports and $17 billion more exports. This suggests that much of the cost advantage that US auto makers have gained by setting up plants in Canada and Mexico, which then import back into the United States, would have been lost under this scenario. Instead, it would have become possible to export more cars made in the United States because they would have become significantly cheaper for consumers in Mexico and Canada.

Exhibit C.1

TRADE WITH NAFTA WOULD BE MOST STRONGLY AFFECTED BY AN EVEN 33 PERCENT DOLLAR-DEPRECIATION

$ billion



	NAFTA	Europe	Other	Asia	China	Petrol
% change in exports	32.7	31.4	35.7	34.3	32.5	31.8
% change in imports	-16.5	-11.0	-13.5	-14.4	-9.2	-11.6

Note: Numbers do not sum due to rounding
Source: Bureau of Economic Analysis; McKinsey Global Institute analysis

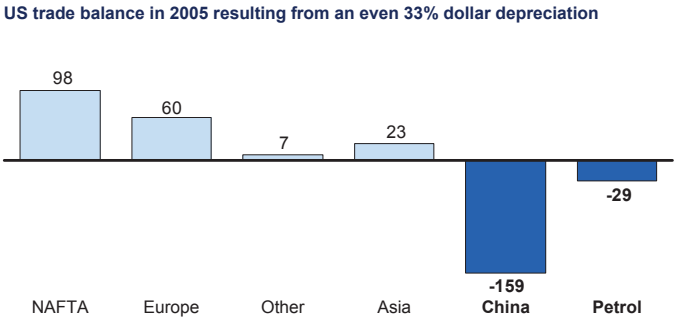
The US trade balance in 2005 with Europe would have improved by $145 billion, with $100 billion coming from increased US exports. The largest change would have been in services trade. US exports to Europe would have increased by $42 billion while imports would have decreased by $19 billion. In traded goods, there would have been a $30 billion improvement in trade in machines and other vehicles. However, it is noteworthy that automobile trade would have improved by only $6 billion, spilt evenly between reduced imports and increased exports. It is apparently the case that Americans will still buy foreign automobiles such as BMWs and Mercedes even at higher prices, and Europeans will still choose not to buy American cars, even if they are available at cheaper prices.

The US trade balance in 2005 with Asia, excluding China, would have improved by $134 billion, due mainly to increased US exports, particularly of machines and other vehicles ($32 billion) and services ($24 billion).

The US trade balance in 2005 would have swung to a $98 billion surplus with NAFTA, a $60 billion surplus with Europe, and a $23 billion surplus with Asia, excluding China. It is startling, however, that even after a 33 percent depreciation, the United States still would have run a huge $159 billion deficit with China (Exhibit C.2).

Exhibit C.2

UNITED STATES WOULD HAVE A TRADE SURPLUS WITH MOST REGIONS EXCEPT CHINA
$ billion



	NAFTA	Europe	Other	Asia	China	Petrol
Trade balance 2005	-109	-84	-129	-111	**-198**	**-47**

Source: Bureau of Economic Analysis; McKinsey Global Institute analysis

A breakdown of the impact of depreciation on different product categories reveals that the largest improvement of $152 billion would have come in services, followed by machines and other vehicles with an improvement of $146 billion, and manufactured goods ($114 billion). The strong improvement in services would have been due mainly to a 30 percent increase in exports—$107 billion—while imports would have fallen by only 16 percent. Of the increased exports, $42 billion would have gone to Europe and $24 billion to Asia.

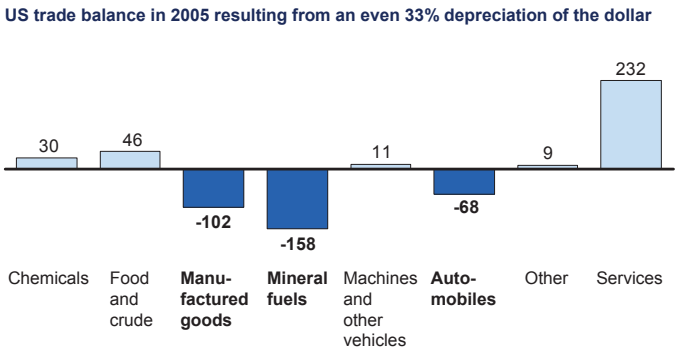
Exports of machinery and other vehicles would have increased by an even larger amount (38 percent), or $114 billion. NAFTA would have been the largest consumer of increased exports in this category, accounting for $40 billion of the total. NAFTA also would have significantly increased imports of US manufactured goods ($25 billion). In short, as the dollar depreciation depressed prices, foreigners would have been more likely to buy US services, tractors, and refrigerators, than the United States would have been to reduce its imports of cars or toys.

Overall, the evenly distributed dollar depreciation would have resulted in a larger trade surplus in services of $232 billion, and a swing from a deficit of $134 billion

to a surplus of $11 billion in machines and other vehicles. However, the United States would still have had a deficit in automobiles of $68 billion, manufactured goods of $102 billion, and mineral fuels of $158 billion (Exhibit C.3).

Exhibit C.3

UNITED STATES WOULD MAINTAIN TRADE DEFICIT IN MANUFACTURED GOODS, OIL, AND AUTOS, BUT POST LARGER SERVICES SURPLUS
$ billion



	Chemicals	Food and crude	Manu-factured goods	Mineral fuels	Machines and other vehicles	Auto-mobiles	Other	Services
Trade balance 2005	-12	8	**-216**	**-196**	-134	**-126**	-85	80

Source: Bureau of Economic Analysis; McKinsey Global Institute analysis

SCENARIO 2: DOLLAR DEPRECIATES MOST AGAINST ASIA

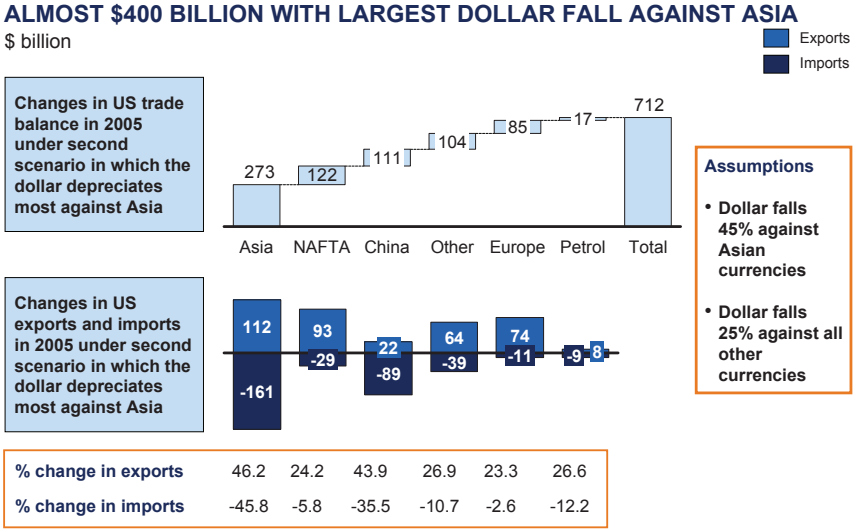
Under our second scenario, the dollar depreciates by 45 percent against the Asian currencies and by 25 percent against all others. This would have improved the US trade balance with Asia in 2005 by $384 billion—or 54 percent of the total—with China accounting for $111 billion of this (Exhibit C.4). Unlike the first scenario, under which much of the overall adjustment would have come from export growth (45 percent), under this scenario, $250 billion of the adjustment with Asia, or 65 percent, would have been due to reduced imports. For China, some $89 billion, or 80 percent, of the total adjustment would have been due to reduced US imports. Overall, Asia's share of US imports would have shrunk from 31 percent to 22 percent.

Under this scenario, the US trade balance with NAFTA would have improved by $122 billion, driven mainly by $93 billion worth of increased exports. The trade balance with Europe would have improved by $85 billion, also driven largely by increased exports of $74 billion. Overall, therefore, the United States would have reached balance on its trade account by greatly reducing imports from China and Asia and increasing exports to Europe and NAFTA in particular but also, to an extent, to Asia.

Exhibit C.4

US TRADE BALANCE WITH ASIA AND CHINA WOULD IMPROVE BY ALMOST $400 BILLION WITH LARGEST DOLLAR FALL AGAINST ASIA

$ billion



% change in exports	46.2	24.2	43.9	26.9	23.3	26.6
% change in imports	-45.8	-5.8	-35.5	-10.7	-2.6	-12.2

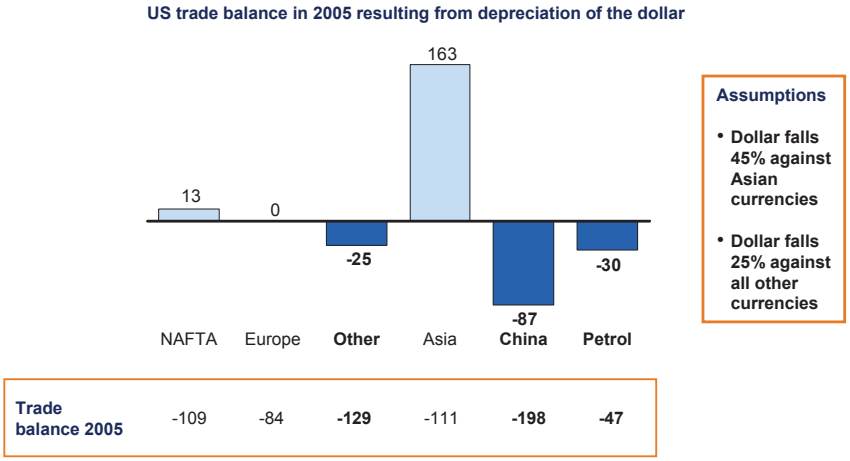
Source: Bureau of Economic Analysis; McKinsey Global Institute analysis

Regarding its bilateral trade relationships, the United States would have found itself in surplus to the tune of $13 billion with NAFTA and in rough balance with Europe—both of which surpluses are smaller than under the first scenario. In Asia, the story varies—with China, as always, the outlier. The United States would have had a trade surplus of $163 billion with Asia, excluding China, but would still have run a trade deficit of $87 billion with China (Exhibit C.5). Although much smaller than the $198 billion trade deficit with China of 2006, it is notable that, even after a 45 percent dollar depreciation against the yuan, a large trade deficit would have persisted. In fact, we calculate that it would have taken a 52 percent dollar depreciation against the yuan from December 2005—or 49 percent from January 2007—to achieve trade balance with China.

Looking at different product categories, we find that the largest improvement would have been in US trade in machines and other vehicles ($185 billion), followed by manufactured goods at $145 billion, and services at $137 billion. This is unsurprising given that the United States currently imports a large share of its manufactured goods and machines from Asia, where the majority of the adjustment would take place. Asia and China would together have made up 80 percent of the reduced imports in manufactured goods and 96 percent of the reduced imports in machines and other vehicles. The United States would have greatly reduced auto imports ($45 billion) and machines and other vehicle imports ($50 billion) from Asia, excluding China. For China itself, more than half of the $89 billion in reduced imports would have come from manufactured goods ($54 billion).

Exhibit C.5

THE UNITED STATES WOULD STILL HAVE A $87 BILLION TRADE DEFICIT WITH CHINA AFTER A 45 PERCENT DOLLAR FALL AGAINST YUAN
$ billion



Source: Bureau of Economic Analysis; McKinsey Global Institute analysis

The adjustment in the services-trade balance is a different story. Here, the United States would have increased its exports by $96 billion. Of this, NAFTA and Europe together ($43 billion) would have made up more of the adjustment than China and Asia ($37 billion), despite the fact that the dollar adjustment against their currencies would have been smaller than that against those of Asia. This is because the US exports very few services to Asia at present ($84 billion) compared with Europe and NAFTA ($197 billion taken together).

As under our first scenario, the United States would have achieved a surplus on its trade in machines and other vehicles. However, perhaps the most notable change is that its manufactured goods deficit would have fallen to one-third of its current size, from $216 billion to $71 billion (Exhibit C.6).

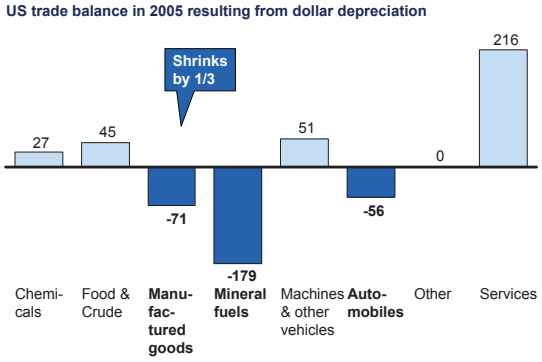
SCENARIO 3: NO ADJUSTMENT WITH ASIAN CURRENCIES

Under our third scenario, the dollar remains unchanged against Asian currencies. Instead, all of the adjustment comes through a 39 percent depreciation against other currencies. Under this scenario, unsurprisingly, NAFTA and Europe would have borne the brunt of trade adjustment. The US trade balance with NAFTA would have improved by $296 billion and with Europe by $207 billion, while the balance with Asia and China would have remained the same (Exhibit C.7).

Exhibit C.6

US TRADE BALANCES IN MANUFACTURED GOODS AND MACHINES AND OTHER VEHICLES WOULD BE GREATLY IMPROVED UNDER MGI'S SECOND DEPRECIATION SCENARIO

$ billion



Assumptions

- **Dollar falls 45% against Asian currencies**
- **Dollar falls 25% against all other currencies**

Trade balance 2005	-12	8	**-216**	**-196**	-134	**-126**	-85	80

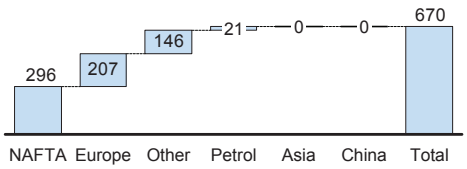
Source: Bureau of Economic Analysis; McKinsey Global Institute analysis

Exhibit C.7

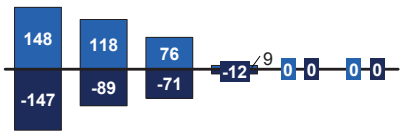
US IMPORT AND EXPORT ADJUSTMENT WOULD BE MORE BALANCED WITH DOLLAR FALL UNDER MGI'S THIRD SCENARIO

$ billion

Changes in US trade balance in 2005 under third scenario in which the dollar maintains current exchange rates with Asia



Changes in US exports and imports in 2005 under third scenario in which the dollar maintains current exchange rates with Asia



Assumptions

- **Dollar maintains current exchange rates with Asian currencies**
- **Dollar falls 39% against all other currencies**

% change in exports	38.5	37.1	31.7	31.7	0	0
% change in imports	-29.9	-22.1	-19.2	-15.9	0	0

Source: Bureau of Economic Analysis; McKinsey Global Institute analysis

The adjustment in trade with NAFTA would have been divided equally between reduced imports and increased exports (some $148 billion). This is in stark contrast to the first two scenarios, where exports made up 76 percent of the adjustment under scenario 2 (25 percent depreciation for NAFTA) and 61 percent under scenario 1 (even 33 percent depreciation). Given current relative prices and cost advantages, increased exports at first would have improved the US trade balance with NAFTA, up to the point at which the dollar had fallen sufficiently (e.g. by more than 30 percent) for imports to start declining faster than exports were increasing. A similar dynamic would have affected US trade with Europe. In this case, a $118 billion increase in exports would have accounted for 57 percent of the adjustment, compared with the 69 percent and 87 percent adjustment in exports under scenarios 1 and 2, which would have seen the dollar depreciate against European currencies by 33 percent and 25 percent respectively.

In general, as the dollar begins to fall, most of the adjustment would have come from an increase in exports. This would have been the result of the low pass-through rate for imports (50 percent), which would have prevented significant price changes in imports for US consumers. However, as the dollar continued to fall, there seems to be a "tipping point" beyond a 25–30 percent depreciation at which imports would have fallen much faster because prices had simply become too high. A dollar depreciation around 40 percent would have seen imports and exports accounting for equal shares; when the depreciation goes beyond the 40 percent mark, imports would have accounted for a larger share of the adjustment.

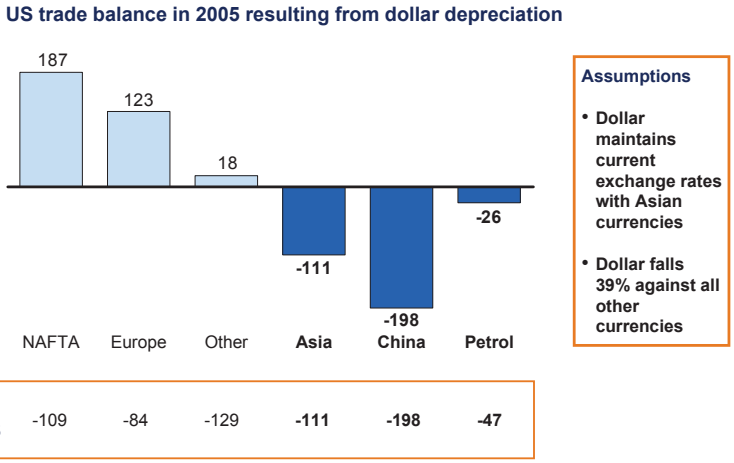
Overall, this scenario would have left the United States with trade surpluses with NAFTA of $187 billion and Europe of $123 billion, and a combined trade deficit with Asia and China of $309 billion (Exhibit C.8). In short, the United States would have continued to import cheap goods from Asia, reduced its imports from its other trading partners, and expanded its goods and services exports to NAFTA and Europe.

Within NAFTA, the largest decrease in imports would have been in mineral fuels ($37 billion) while the largest increase would have been in machines and other vehicles ($47 billion). For Europe, services would have accounted for both the largest exports growth ($50 billion) and the largest reduction in imports ($35 billion). Overall, across the product categories, as under our first scenario, the largest change would have come in services, with an improvement in the trade balance of $159 billion due mainly to increased exports of $94 billion. Machines and other vehicles would have been next largest at $123 billion, again due mainly to exports ($88 billion). Not far behind would have been manufactured goods, which would have improved by $110 billion. However, reduced imports

Exhibit C.8

THE US TRADE SURPLUS WITH NAFTA AND EUROPE WOULD BE MORE THAN $300 BILLION UNDER MGI'S THIRD SCENARIO

$ billion



Trade balance 2005	-109	-84	-129	-111	-198	-47

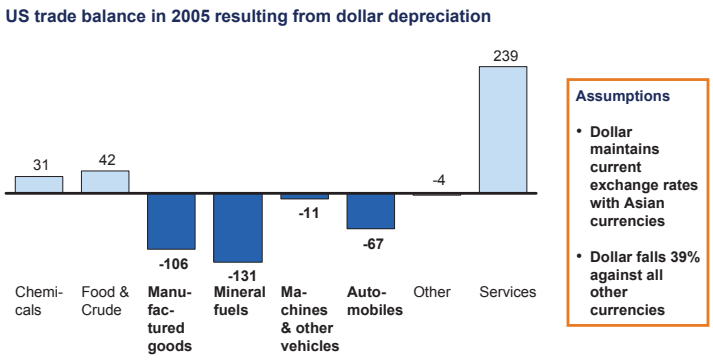
Source: Bureau of Economic Analysis; McKinsey Global Institute analysis

would have been the primary cause for change at $63 billion. Overall, the large increase in services would have led to a tripling of the services surplus from $80 billion to $239 billion (C.9). In contrast, the United States would still have had a trade deficit in manufactured goods and machines and other vehicles.

Exhibit C.9

THE US SERVICES TRADE SURPLUS WOULD TRIPLE TO $240 BILLION UNDER THE THIRD DEPRECIATION SCENARIO

$ billion



Trade balance 2005	-12	8	-216	-196	-134	-126	-85	80

Source: Bureau of Economic Analysis; McKinsey Global Institute analysis

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