

Appendix 1

Patterns of Indicators

Appendix I of the autumn 2005 and the spring 2006 Report to the Congress on International Economic and Exchange Rate Policies discussed the use of indicators in considering the question of whether “countries manipulate the rate of exchange between their currency and the United States dollar for purposes of preventing effective balance of payments adjustments or gaining unfair competitive advantage in international trade.”¹ Those appendices stressed that, in considering the question of designating countries pursuant to the terms of the Act, a range of indicators needs to be assessed. While an individual indicator – such as a reserve or a current account position – may yield important information, it will not in and of itself provide a comprehensive picture of a country’s economic situation or external position.^{2,3} Rather, it is the pattern of change in indicators, when examined in terms of a specific country and the global economic environment, that typically provides the most useful information.

The current analysis updates that presented in the autumn 2005 and the spring 2006 reports. This analysis provides a framework for understanding the wide array of factors that can underpin economies’ external positions, even economies with sizeable current account surpluses. Also, as previously noted, at a time when the United States – the world’s largest economy – runs a large current account deficit, the counterpart to that deficit is inevitably large surpluses in some other countries of the world. Table 1 updates the set of numerical indicators constructed for a cross section of significant economies that was described in the autumn 2005 Report.

¹ The Omnibus Trade and Competitiveness Act of 1988 states, among other things, that: “The Secretary of the Treasury shall analyze on an annual basis the exchange rate policies of foreign countries, in consultation with the International Monetary Fund, and consider whether countries manipulate the rate of exchange between their currency and the United States dollar for purposes of preventing effective balance of payments adjustments or gaining unfair competitive advantage in international trade.”

² The autumn 2005 Appendix also included a discussion of various indicators and their relevance. That work was derived from Treasury’s March 11, 2005, Report to the Committees on Appropriation on Clarification of Statutory Provisions Addressing Currency Manipulation. The report can be found at <http://www.treas.gov/press/releases/js2308.htm>.

³ The Government Accountability Office (GAO) report, “Treasury Assessments Have Not Found Currency Manipulation, but Concerns about Exchange Rates Continue”, discussed Treasury’s assessments. The GAO report can be found at <http://www.gao.gov/cgi-bin/getrpt?GAO-05-351>.

Table 1⁴

	Current Account Balance		Foreign Exchange Reserves			Real Effective Exchange Rate (% appreciation) Feb02 - Oct06	External Sector Contribution to Growth Rate (Average %) 2003-2005	Relative Dependence of GDP Growth on External Sector (Average %) 2003-2005
	Level (%GDP) 2005	Change over period (%GDP) 2002-2005	Ratio to 2005 GDP (%) Dec 2005	Ratio to short-term external debt (%) June 2006	Change in reserves (%) Jun05 to Jun06			
Saudi Arabia	29.3	23.0	7.8	174.7	10.5	-22.0	-1.5	-9.5
Singapore	28.5	15.1	98.8	130.1	10.2	22.5	5.6	5.2
Venezuela	18.2	10.0	21.1	625.6	11.0	13.1	-4.6	-15.1
Norway	16.5	3.8	15.7	44.4	7.7	14.7	-1.4	-5.0
Malaysia	15.4	7.0	53.0	339.7	5.9	-13.6	0.3	-5.4
Switzerland	14.8	6.4	9.7	7.7	1.6	-7.3	0.1	-1.1
Russia	11.2	2.8	23.0	474.2	64.4	31.1	-0.4	-7.8
Sweden	7.5	2.2	6.0	12.2	7.2	1.8	1.0	-0.7
China	7.1	4.6	36.8	1212.3	32.4	-2.7	2.3	-5.5
Taiwan	4.7	-4.0	73.0	781.0	2.7	-4.4	1.7	-1.2
Germany	4.2	2.2	na	na	na	na	0.3	-0.2
Japan	3.7	0.8	18.1	206.4	2.3	-13.0	0.6	-1.1
Canada	2.3	0.6	2.7	19.9	7.3	17.7	-1.9	-6.4
Korea	2.2	1.2	26.7	243.3	10.3	23.5	2.4	0.9
Euro Area	-0.1	-0.9	1.7	3.8	-2.5	22.3	-0.3	-1.9
Mexico	-0.7	1.5	8.9	286.4	27.5	-2.6	-0.2	-3.2
India	-1.2	-2.7	18.0	443.4	17.8	-2.3	0.6	-6.6
Thailand	-2.0	-7.6	28.6	341.9	19.6	9.3	-0.8	-7.5
United Kingdom	-2.2	-0.7	1.6	1.5	4.9	-0.4	-0.5	-3.5
Australia	-6.0	-2.1	5.8	24.1	11.9	44.0	-2.0	-7.0
United States	-6.4	-1.8	0.3	2.6	3.4	-22.0	-0.6	-4.6
Turkey	-6.4	-5.6	14.1	129.1	43.0	10.9	-3.3	-13.9
Spain	-7.4	-4.1	na	na	na	na	-1.8	-6.7
Portugal	-9.3	-1.4	na	na	na	na	-0.2	-0.4

The same methodology used in the previous two reports is used below to examine more closely the patterns of indicators by assigning qualitative values of low, medium, or high (numerically 0, 1, or 2) to the indicators and constructing indices based on alternative weighting schemes which give different emphasis to the various indicators. The three schemes are:

- A focus on changes in current account balances, foreign exchange reserves, and real effective exchange rates, assigning each a one third weight.
- A focus on current account balances, changes in current account balances, changes in foreign exchange reserves, changes in real effective exchange rates, and relative dependence of GDP growth on the external sector, assigning each a one fifth weight.
- A focus on current account balances, changes in current account balances, and relative dependence of GDP growth on the external sector, assigning each a one third weight.

⁴ The “Contribution to Growth of the External Sector” is calculated as the annual change in real net exports (in the National Income and Product Accounts) as a percent of real gross domestic product. The “Relative Dependence of GDP Growth on the External Sector” is measured as the external sector’s contribution to GDP growth minus the contribution of the growth in domestic demand. This dependency measure reflects the view that a country will be generally more concerned about the contribution of the external sector to GDP growth if the contribution of the domestic sector to GDP growth is relatively small. For example, Singapore’s export sector contributed 5.6 percent to GDP growth during 2003-2005 while domestic demand contributed only 0.4 percent. China’s export sector, on the other hand, contributed only 2.3 percent to GDP growth during 2003-2005 while domestic demand contributed 7.7 percent. Turkey’s external sector subtracted 3.3 percent from GDP growth during this period while domestic demand contributed 10.6 percent. The “Real Effective Exchange Rate” is JP Morgan’s Broad Real Effective Exchange Rate Index.

Results

The three weighting schemes yielded the following rankings, ordering first by score then alphabetically:

Scheme I		Scheme II		Scheme III	
Malaysia	1.7	Malaysia	1.4	Singapore	2.0
Saudi Arabia	1.7	Saudi Arabia	1.4	Sweden	1.7
China	1.3	Singapore	1.4	Switzerland	1.7
Switzerland	1.3	Sweden	1.4	Germany	1.3
Japan	1.0	Switzerland	1.4	Korea	1.3
Mexico	1.0	China	1.2	Malaysia	1.3
Russia	1.0	Japan	1.0	Norway	1.3
Singapore	1.0	Korea	1.0	Saudi Arabia	1.3
Sweden	1.0	Norway	1.0	Venezuela	1.3
Venezuela	1.0	Russia	1.0	China	1.0
Canada	0.7	Venezuela	1.0	Japan	1.0
India	0.7	Germany	0.8	Russia	1.0
Korea	0.7	Mexico	0.8	Canada	0.7
Norway	0.7	Canada	0.6	Mexico	0.7
Turkey	0.7	Taiwan	0.6	Portugal	0.7
Australia	0.3	India	0.4	Taiwan	0.7
Germany	0.3	Portugal	0.4	Euro Area	0.3
Taiwan	0.3	Turkey	0.4	United Kingdom	0.3
Thailand	0.3	United Kingdom	0.4	Australia	0.0
United Kingdom	0.3	Australia	0.2	India	0.0
Euro Area	0.0	Euro Area	0.2	Spain	0.0
Portugal	0.0	Thailand	0.2	Thailand	0.0
Spain	0.0	Spain	0.0	Turkey	0.0

- As in the two previous reports, oil-exporting economies tend to score high whichever weighting scheme is chosen. This primarily reflects the impact of increased oil prices that have resulted in recent large current account surpluses and reserve accumulations. Saudi Arabia, for example, had a current account surplus of \$90 billion in 2005, or 29 percent of GDP. Russia had a current account surplus of around \$85 billion, or 11 percent of GDP. Russia's foreign exchange reserves grew 32 per cent over 2005 and 64 per cent in the 12 months through June 2006. Norway had a current account surplus of around \$50 billion, or 17 percent of GDP. The real growth of these economies may not depend heavily on the external sector since the expanding current account surpluses are the result of price rather than volume changes. Some have pegged their currency to the dollar and have experienced a real depreciation of their currency over the past few years.
- As in last autumn's report, China is toward the upper end of the first and second weighting schemes, and in the middle of the third. China's current account surplus, as a share of GDP rose sharply in 2005, reaching 7.1 percent of GDP. China's foreign exchange reserve accumulation was very large and excessive in 2005, and reserves are continuing to rise rapidly in 2006 reaching \$988 billion at the end of September. These factors account for the high ranking using the first weighting scheme. Still, although the contribution of China's external sector to growth is positive,⁵ growth in domestic demand is so strong that contribution of the external sector to growth appears to be modest. These considerations impact China's ranking in the second and third weighting schemes.

⁵ As noted above this measure is of the change in net exports relative to the size of GDP. Given the size of China's economy, the level of the current account surplus is large by international standards.

- Germany appears in the middle the weighting schemes. Germany has a large current account surplus, roughly \$117 billion and equal to 4.2 percent of GDP. Yet, Germany is part of the Eurozone and thus cannot conduct an independent monetary policy. Further, the euro is a freely floating currency. Around one half of German growth in 2005 reflected the contribution of external demand. On balance, Germany's current account surplus is fundamentally associated with persistently weak investment and domestic demand.
- Japan is in the upper half of all three schemes. The major factor lifting Japan in the table is the large depreciation of its real effective exchange rate, which is currently at its lowest point in two decades. Although Japan has intervened heavily in foreign exchange markets in the past, it has not done so since March 2004. In 2005, Japan's current account surplus was \$167 billion or 3.7 percent of GDP. Though Japanese private saving has declined in past years and the public sector has run fiscal deficits, corporate saving has been strong. Investment and domestic demand, meanwhile, have been weak. In 2005, Japan gained economic momentum, and the economy became less reliant on external demand for stimulus. However, low Japanese interest rates – a product of Japan's appropriately and highly accommodative monetary policy aimed at overcoming deflation – stimulated large capital outflows from Japan in 2005.
- Switzerland again remains toward the top of the three weighting schemes. It has a large current account surplus reflecting significant surpluses in trade in financial services and investment income. The Swiss franc is an independent floating currency, and Swiss authorities have not intervened in the exchange market.
- Malaysia tends to have a very high ranking, on the whole, in each of the three weighting schemes. It has a tightly managed exchange rate. It ran a 15 percent of GDP current account surplus in 2005, in part due to higher oil export earnings, and its reserves rose rapidly. The real value of the ringgit has depreciated over 13 percent since February 2002. However, recent reserve accumulation has been modest.
- Russia is running a large current account surplus and for several years has had one of the highest rates of reserve accumulation in the world. Its real trade-weighted exchange rate has appreciated over the last year due to its continuing double digit inflation. Although its large and growing current account surplus and rapidly growing reserves have pushed Russia up in two of the weighting schemes, real ruble appreciation has constrained its rise in the schemes. The Russian economy is, in fact, partially adjusting to increases in the value of its oil exports without nominal exchange rate adjustment through inflation and the reduction in competitiveness of its non-oil sector.