Appendix 1

Patterns of Indicators

Appendix 1 in each of the Reports to the Congress on International Economic and Exchange Rate Policies since the autumn of 2005 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 as manipulators, 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. Rather, it is the pattern of change in indicators that, when examined in terms of economic conditions in a specific country and the global economic environment, typically provides the most useful information. Indeed, the countries included in this analysis include a number, designated with asterisks, whose exchange rates are wholly market determined. This appendix updates the indices considered in previous reports.

Table 1[2]

	Current Account Balance		Foreign Exchange Reserves			Real Effective	External Sector	Relative Dependence
	Level (%GDP) 2006	Change over period (%GDP) 2002-2006	Ratio to 2006 GDP (%) Dec 2006	Ratio to short-term external debt (%) Dec 2006	Change in reserves (%) Dec05 to Dec06	Exchange Rate (% appreciation) Feb02 - Mar07	Contribution to Growth Rate (Average %) 2004-2006	of GDP Growth on External Sector (Average %) 2004-2006
Saudi Arabia	27.4	21.1	7.5	218.5	7.9	-22.7	-4.8	-15.1
Singapore	27.5	13.7	103.1	133.2	17.8	15.2	2.8	-2.1
Venezuela	14.9	6.7	15.9	636.4	23.4	18.2	-9.1	-31.2
Norway *	16.7	4.1	16.8	40.7	21.1	22.5	-2.1	-7.3
Malaysia	17.1	8.7	54.8	370.2	17.8	-10.4	-0.5	-7.2
Switzerland *	17.3	8.9	9.9	8.9	5.5	-8.5	0.7	-0.9
Russia	10.2	1.8	29.9	517.2	68.1	37.4	-2.2	-11.1
Sweden *	7.4	2.1	6.2	13.4	12.6	5.1	1.5	-0.8
China	9.5	7.1	40.6	1333.2	30.2	-2.0	3.5	-3.5
Taiwan	6.7	-2.0	74.3	838.9	2.7	-7.0	1.9	-1.1
Germany *	5.0	3.1	na	na	na	na	0.9	0.3
Japan *	3.9	1.1	20.0	229.3	5.6	-13.6	0.7	-1.0
Canada *	1.7	0.0	2.6	16.6	8.3	11.6	-1.5	-6.0
Korea	0.7	-0.3	26.8	238.3	13.5	21.4	2.1	-0.5
Euro Area *	-0.1	-0.9	1.7	3.9	10.1	24.2	0.1	-1.9
Mexico *	-0.2	2.0	9.0	248.2	3.3	-5.3	-0.6	-5.2
India	-1.3	-2.8	20.7	382.6	29.9	0.0	0.3	-8.0
Thailand	1.5	-2.2	31.6	451.1	29.0	15.0	0.7	-3.9
United Kingdom *	-3.4	-1.8	1.6	1.6	8.5	0.9	-0.4	-3.4
Australia *	-5.4	-1.7	7.0	26.1	28.9	40.3	-1.5	-5.9
United States *	-6.5	-2.0	0.3	2.4	8.2	-22.0	-0.3	-4.1
Turkey *	-8.2	-7.4	15.8	137.9	20.8	11.8	-2.3	-11.8
Spain *	-8.6	-5.4	na	na	na	na	-1.8	-7.2
Portugal *	-9.4	-1.3	na	na	na	na	-0.2	-1.5

[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 "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 external sector contributed 2.8 percent to average GDP growth during 2004-2006 while domestic demand contributed 4.9 percent. China's external sector contributed 3.5 percent to average GDP annual growth during 2004-2006 while domestic demand contributed 6.9 percent. Turkey's external sector subtracted 2.3 percent from average GDP growth during this period while domestic

The same methodology used in the previous 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.

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

Scheme I		Scheme II		Scheme III	
China	1.7	Switzerland *	1.8	Switzerland *	2.0
Malaysia	1.7	China	1.6	China	1.7
Saudi Arabia	1.7	Japan *	1.4	Germany *	1.7
Switzerland *	1.7	Malaysia	1.4	Singapore	1.7
Japan *	1.3	Saudi Arabia	1.4	Sweden *	1.7
Mexico *	1.0	Singapore	1.2	Japan *	1.3
Russia	1.0	Sweden *	1.2	Malaysia	1.3
Singapore	1.0	Germany *	1.0	Saudi Arabia	1.3
Venezuela	1.0	Russia	1.0	Venezuela	1.3
India	0.7	Taiwan	1.0	Korea	1.0
Norway *	0.7	Venezuela	1.0	Norway *	1.0
Sweden *	0.7	Korea	0.8	Russia	1.0
Taiwan	0.7	Norway *	0.8	Taiwan	1.0
United Kingdom *	0.7	Mexico *	0.6	Thailand	0.7
Australia *	0.3	Thailand	0.6	Canada *	0.3
Canada *	0.3	United Kingdom *	0.6	Euro Area *	0.3
Euro Area *	0.3	Canada *	0.4	Mexico *	0.3
Germany *	0.3	Euro Area *	0.4	Portugal *	0.33
Korea	0.3	India	0.4	United Kingdom *	0.3
Thailand	0.3	Australia *	0.2	Australia *	0.0
Turkey *	0.3	Portugal *	0.2	India	0.0
Portugal *	0.0	Turkey *	0.2	Spain *	0.0
Spain *	0.0	Spain *	0.0	Turkey *	0.0

*represents currencies that are wholly market determined.

There are some notable changes in the rankings since the last report.

- The Swiss franc is an independent floating currency, and Swiss authorities have not intervened in the foreign exchange market. A marginal increase in Switzerland's relative dependence of GDP growth on the external sector raised it to the highest bracket in this category. This was sufficient, in light of its already large and growing current account surpluses, to raise Switzerland to the top of all three schemes. Switzerland's current account surplus reflects significant surpluses in trade in financial services and investment income.

demand contributed 9.5 percent. The "Real Effective Exchange Rate" is JP Morgan's Broad Real Effective Exchange Rate Index.

- A significant increase in the growth in China’s current account surplus and in China’s dependence on the external sector for growth raised China to the top, or near the top, of all three schemes.

- A marginal increase in the relative dependence of GDP growth on the external sector edged Japan into the highest bracket of that category, while a small increase in the rate of reserve accumulation put it into the middle bracket of that category. These had the effect of raising Japan in all three schemes. Both changes were small, the increase in reserves reflecting interest earned on existing reserves and valuation effects. Japan maintains a floating exchange rate regime. The Yen is widely traded in foreign exchange markets and Japanese authorities have not intervened in this market since March 2004.

- Reduced dependency of growth on the external sector dropped Singapore’s rankings in schemes II and III.