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DEPARTMENT OF THE TREASURY
WASHINGTON, D.C.

ASSISTANT SECRETARY

INFORMATION

MEMORANDUM FOR DEPUTY SECRETARY SUMMERS
UNDER SECRETARY LIPTON

FROM: Timothy Geithner CA for
Assistant Secretary for International Affairs

SUBJECT: Impact of financial turmoil in Southeast Asia on the U.S. and Japanese economies

Attached is the IMI analysis of the impact of financial turmoil in Southeast Asia that Deputy Secretary Summers requested. It is a revised version of analysis included in the Hong Kong briefing book. Analyses from FinATT Tokyo, Goldman Sachs and Salomon Brothers are also included for comparison.

IMI estimates that recent turmoil will lead to a 0.3% of U.S. GDP real reduction in the U.S. net exports in 1998 and to a 0.5% of Japanese GDP real reduction in Japanese net exports. Other analysts have generally estimated that the crisis will have an impact on U.S. GDP of under 0.1% and on Japanese GDP of between 0.1 and 0.3%.

IMI analysis predicts a larger possible impact than other analyses because:

- It incorporates more recent movement in Southeast Asian exchange rates into its analysis (through October 1);.
- It assumes that exchange rate movements have a larger impact on real trade flows than other analyses;
- It includes Korea;
- It is calculated in real rather than nominal terms;
- It assumes that in the absence of recent depreciations by Southeast Asian currencies against the dollar, the yen would have depreciated against Southeast Asian currencies, which would have translated into a positive stimulus to Japanese exports.

Attachments: Tab A: "The Impact of the 'Thai Crisis' on Japan and the United States"
Tab B: FinATT Tokyo analysis
Tab C: Salomon Brothers analysis
Tab D: Goldman Sachs analysis

CC: David Wilcox, Economic Policy

Brad Setser/ IMI
October 1, 1997

IMPACT OF THE "THAI CRISIS" ON JAPAN AND THE UNITED STATES

SUMMARY

IMI analysis suggests that impact of the "Thai crisis" and the resulting financial turmoil in Southeast Asia and Korea on both the United States and Japan is likely to be significant -- particularly if recent downward movement in the Indonesian rupiah, Malaysian ringgit and Philippine peso are sustained -- but not catastrophic:

- **Estimated impact on the United States**: a $10.6 billion real deterioration of the U.S. trade balance with Korea and the five leading Southeast Asian economies in 1997, between 0.1 and 0.2% of GDP, and a $26.5 billion deterioration in 1998, 0.3% of GDP, relative to baseline projections.

- **Estimated impact on Japan**: a $9.0 billion real reduction in Japanese net exports in 1997, 0.2% of Japanese GDP, and $21.2 billion real reduction in 1998, 0.5% of GDP, relative to baseline projections.

- **The nominal impact on both the United States and Japan will be smaller**: increases in imports from Southeast Asia will be largely offset by lower prices for each unit of imports.

- **The nature of the impact on the Japanese and American economies is not expected to be the same**: Southeast Asia and Korea are a much more important market for Japanese exports than for American exports. 24.25% of Japanese exports go to the ASEAN 5 plus South Korea while only 11.1% of U.S. exports go to the ASEAN 5 plus South Korea. Consequently, reduced real exports account for a larger share of the anticipated impact on Japan ($13.2 billion out of $21.2 billion total) than for the United States ($8.5 billion out of the $26.5 billion total).

- The estimated impact on the U.S. is largely due to increased imports. **This suggests that the nominal impact will be close to IMI estimates of the real impact for Japan, but somewhat lower for the United States.**

IMI ANALYSIS

IMI analysis assumes that recent turmoil will alter trade in two ways: first, slower growth in certain Southeast Asian countries, most notably in Thailand, will translate directly into lower Japanese and American exports; second, the depreciation of Southeast Asian currencies and the Korean won against the dollar will reduce American and Japanese exports and increase American and Japanese imports. IMI analysis differs from other analysis in two significant ways:

- IMI has incorporated the recent movement in ASEAN exchange rates into its analysis. IMI analysis assumes nominal exchange rates will remain at their October 1, 1997 levels and assumes that trade between Southeast Asia, Japan and the United States is relatively responsive to changes in relative prices (price elasticities of 0.9 for both imports and exports). IMI calculations consequently include a large price effect from the depreciations. Other analysis has tended to focus almost exclusively on the likely impact of slower growth in Southeast Asia on American and Japanese exports -- although they often utilize estimated income elasticities substantially larger than those employed in the IMI model.

- IMI analysis assumes that in the absence of any devaluations by key countries in Southeast Asia and Korea, the depreciation of the yen relative to the dollar in late 1996 and early 1997 would have led the yen to depreciate against Southeast Asian currencies and the Korean won -- all of which were tied to the dollar. The IMI baseline consequently assumes a yen depreciation in 1997 that would have provided a substantial stimulus to Japanese exports to the region in the absence of the crisis.

These two differences explain why IMI estimates of the impact of the crisis are larger than other estimates. Many analysts have argued that depreciations of Southeast Asian currencies against the dollar only have offset yen depreciation against the dollar and argue that therefore, the impact of the crisis on Japan is likely to be relatively small. *However, in the absence of the recent turmoil, yen depreciation would have provided a substantial positive stimulus to Japanese exports to the region. Consequently, even a depreciation that only offsets the yen's movement against the dollar will have an impact on the Japanese economy, since it will reduce the positive stimulus to the Japanese economy likely to stem from yen depreciation.*

- In the IMI model, which uses changes in average yearly exchange rates, the large depreciations of Southeast Asian currencies against the dollar in the second half of 1997 have not been large enough to entirely offset yen-dollar movements in the first half of 1997. The crisis is expected to reduce the average real appreciation of Southeast Asian currencies against the yen in 1997 and only generate real depreciations against the yen in 1998.

ALTERNATIVE ANALYSIS: UNITED STATES

Analysis by Goldman Sachs estimates the impact on the United States will not exceed 0.1% of U.S. GDP -- substantially less than IMI's estimate of 0.3% of U.S. GDP.

- Goldman analysis uses the impact of the Mexican crisis on the U.S. economy to estimate the impact of financial turmoil in Southeast Asia on the U.S. economy. Since the four ASEAN countries most affected by recent turmoil account for a smaller fraction of U.S. trade than Mexico, have devalued less against the dollar in nominal terms than Mexico and, according to Goldman analysis, are less likely to experience a sharp reduction in growth than Mexico, Goldman estimates that the total impact on the U.S. will be no more than 40% of the size of the impact from Mexico, which Goldman estimates as 0.25% of U.S. GDP.

- Goldman only examined movement in Southeast Asian exchange rates through September 1, 1997 and consequently has not yet incorporated subsequent depreciations, pronounced for Malaysia, Indonesia and the Philippines into its analysis. It also only examines the ASEAN 4, unlike IMI analysis which includes Singapore and South Korea. While both the Singapore dollar and South Korean Won have depreciated much less against the dollar than other currencies, IMI projections suggest that because of the larger volume of trade between the U.S. and these two countries, the smaller depreciations will still have a significant impact.

- *IMI and Goldman also define the impact of both the Mexican and Southeast Asian crises differently: Goldman's impact is the nominal change from the year before while IMI's impact is the real change from baseline projections.* IMI analysis consequently would produce an estimate of the impact of the Mexican crisis roughly twice as large (0.5% of GDP) as the 0.25% of U.S. GDP impact estimated by Goldman.

ALTERNATIVE ANALYSIS: JAPAN

Analysis by HSBC James Capel, Solomon Brothers and FinATT Tokyo all estimate the crisis in Southeast Asia will reduce Japanese net exports by 0.3% or less of Japanese GDP -- an estimate substantially smaller than IMI's estimate of 0.5% of Japanese GDP.

- FinATT Tokyo estimated that the crisis might reduce Japanese exports by about $4.5 billion. FinATT only examined the four Southeast Asian economies (Thailand, Malaysia, Indonesia and the Philippines) most affected by the crises, which collectively account for 12.4% of Japanese exports. Assuming that the crisis will reduce growth in these economies by 3% and that the income elasticity of demand for imports in 3, FinATT Tokyo estimates that the crisis will reduce import demand in Southeast Asia by 9%, leading to a 1.1% fall in Japanese exports.

- Robert Feldman of Salomon Brothers Tokyo estimates that in the worst case, slower growth in Southeast Asia may lead to a 10% fall in Japanese exports to the ASEAN 5 -- a reversal of 1996 Japanese export growth. This would reduce Japanese exports by 1.8% ($6.6 billion) and Japanese GDP by 0.18%. He does not expect the impact of exchange rate movements to be larger than the effect of slower growth, and therefore estimates an upper limit for the potential impact of 0.36% of Japanese GDP.

- Peter Morgan of HSBC James Capel found econometrically that a 1.0% percent slowdown in growth in the ASEAN 4 (the countries most affected by the crisis) reduced Japanese exports to the ASEAN 4 by 10% and total Japanese exports by 1.2%. Morgan estimates that the crisis may slow growth by 2.0% points, leading to 2.4% drop in Japanese exports (0.24% of Japanese GDP).

- Both Morgan and Feldman believe that they are examining the worst case scenario and are therefore estimating upper limit of the possible impact on the Japanese economy, barring any multiplier effects due to slower export growth. However, their implicit baseline is little change in the exchange rate between Japan and key Southeast Asian countries. *IMI, in contrasts, believes that the appropriate baseline for comparison would incorporate an estimate of the benefits Japan could expect to accrue from yen depreciation prior to recent turmoil.*

- FinATT, Salomon and HSBC James Capel all conducted their analysis in early September and consequently have not incorporated the impact of recent depreciation of the Malaysian ringgit, the Philippine peso and the Indonesian rupiah into their analysis.

All analysis of the impact of the crisis to date has been rough. Southeast Asian currencies continue to slide and the full impact of the financial turmoil on growth in Southeast Asia remains difficult to estimate. Furthermore, many key interactions are not yet clear. Japanese exports to Southeast Asia, for example, are predominantly (60%) capital goods. The currency devaluations make Southeast Asia a more attractive location for reexport operations and consequently may encourage increased investment by Japanese firms in the region (currently one in seven Thai manufacturing workers is employed by a Japanese firm). On the other hand, slower growth makes investment to serve the Southeast Asian market less attractive and many Thai firms may have difficulty obtaining the sufficient credit to exploit new export opportunities given the weakness in the Thai financial sector.

BACKGROUND: U.S. EXPERIENCE FOLLOWING THE MEXICAN CRISIS

Comparing the impact of the peso crisis on the United States and the current crisis in Southeast Asia is reasonable. 1996 U.S. exports to South East Asia and Korea ($68.2 billion) are larger than 1994 U.S. exports to Mexico ($50.8 billion) and 1996 U.S. imports more from South East Asia and Korea ($88.5 billion) also exceed 1994 U.S. imports from Mexico ($49.4 billion). The Thai baht, Malaysian ringgit, Indonesian rupiah and Philippine peso have all depreciated nearly as much as the Mexican peso.

- The Mexican peso fell 31.0% against the dollar in real terms in 1995 before appreciating 10.3% in 1996 (annual average of year to year changes). Because of the overwhelming importance of Mexico's trade with the United States, the real peso/ dollar exchange rate is a useful proxy for Mexico's real exchange rate.

Mexican real GDP growth fell from 4.4% in 1994 to -6.2% in 1995 before the Mexican economy rebounded to grow by 5.1% in 1996. United States exports to Mexico fell by 8.9% in 1995, after growing by 22.1% in 1994. They rebounded to grow 22.6% in 1996. U.S. imports from Mexico continued to grow at the same rate as before the crisis, increasing 23.9% in dollar terms in 1994 and 24.7% in dollar terms in 1995.

- The crisis shifted the U.S. trade balance with Mexico from a nominal $1.4 billion surplus in 1994 to a nominal $15.4 billion deficit in 1995. Subsequent growth in U.S. exports has not been sufficient to reduce the bilateral trade deficit.

IMI analysis suggests that the impact of the Thai crisis on Japan could be comparable to the impact of the Mexican crisis on the United States. However, the impact on the United States should be substantially smaller than the impact of the Mexican crisis on the United States.

- The United States' two most important trading partners in the region, South Korea and Singapore, are the two countries that have been least affected by recent developments.

- Japan is more vulnerable: Indonesia, Thailand, Malaysia and Thailand collectively absorbed 12.4% of Japan's exports in 1996. Mexico only accounted for 10.1% of U.S. exports in 1994.

Two differences between the Mexican peso crisis and the current turmoil in Southeast Asia are worth noting.

- Mexican real GDP fell sharply. Currently, only Thailand is expected to experience a similar slowdown in growth. Growth in other Southeast Asian economies is not currently expected to slow significantly, though this may change as the ramifications of recent depreciations becomes more apparent.

- Increased inflation reduced the real impact of the peso's fall. Currently, inflation in Thailand, Malaysia, the Philippines and Indonesia is not expected to increase at a comparable rate. One reason: the large depreciation of the peso against the dollar increased the peso cost of the majority of Mexico's imports while Southeast Asian countries are less dependent on imports from the U.S.. Southeast Asian currencies have not moved as much against each other or against the yen as they have against the dollar.

BACKGROUND: SOUTHEAST ASIA

During the past five years, Southeast Asia has been one of the most dynamic regions in the world. Thailand, Malaysia, Indonesia and more recently the Phillippines have all developed into significant trading partners for the United States and Japan. 12.4% of Japanese exports go to the four Southeast Asian countries most affected by the crisis; if South Korea and Singapore are added in, around 24% of total Japanese exports go the area likely to be influenced by recent financial turmoil. Southeast Asia and Korea account for 11.1% of U.S. exports and 10.1% of U.S. imports. However, most U.S. trade is with Singapore and South Korea, the two countries least affected by recent developments.

- The ASEAN 5 and South Korea collectively are nearly as important a market for Japanese exports (24% of total exports) as the United States (27% of exports).

- The ASEAN 5 and South Korea account for a larger share of U.S. trade than Mexico did prior to the Mexican crisis.

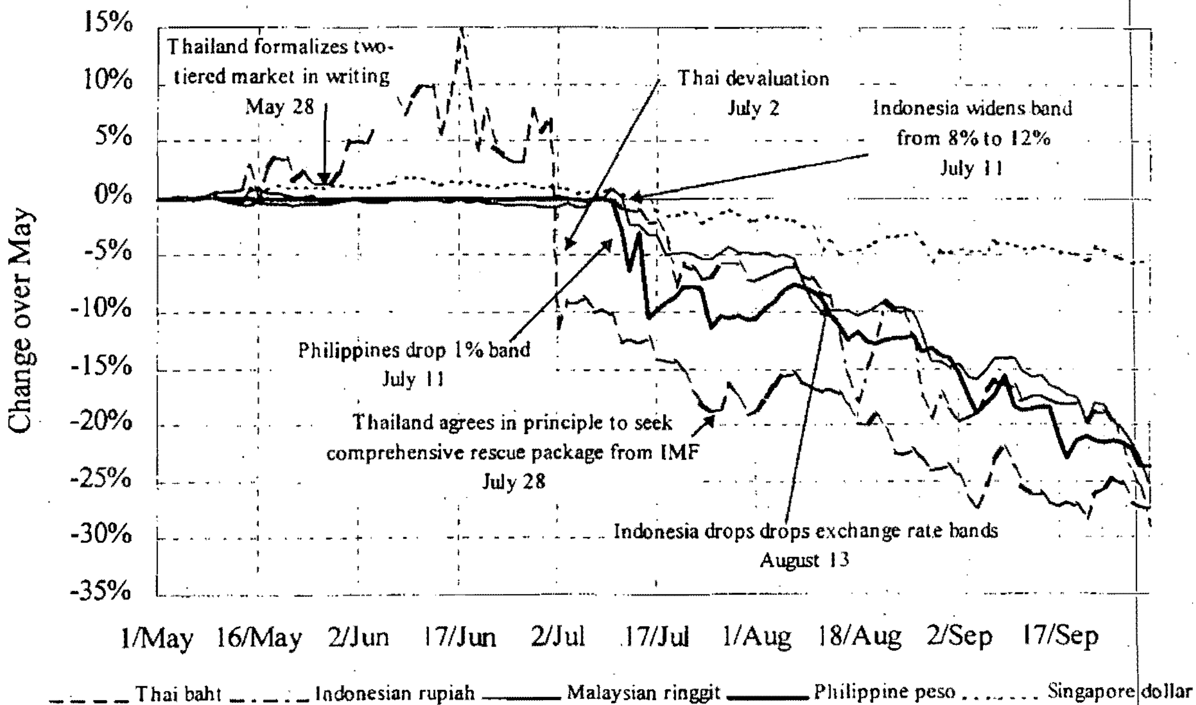
Analysis of the recent evolution of trading patterns suggests two important developments. First, the period of extremely rapid growth in U.S. imports from Southeast Asia appears to be over. In both 1996 and in the first half of 1997, U.S. imports from Southeast Asia increased less rapidly than overall U.S. imports -- and less rapidly than U.S. exports to the region. Japanese imports from Southeast Asia, in contrast, exploded in 1996 -- increasing by 25%; this presumably reflects prior Japanese FDI in the region.

- In 1996 (and in the first part of 1997), South East Asian countries lost market share in the U.S. while countries like Mexico and China increased their share of U.S. imports.

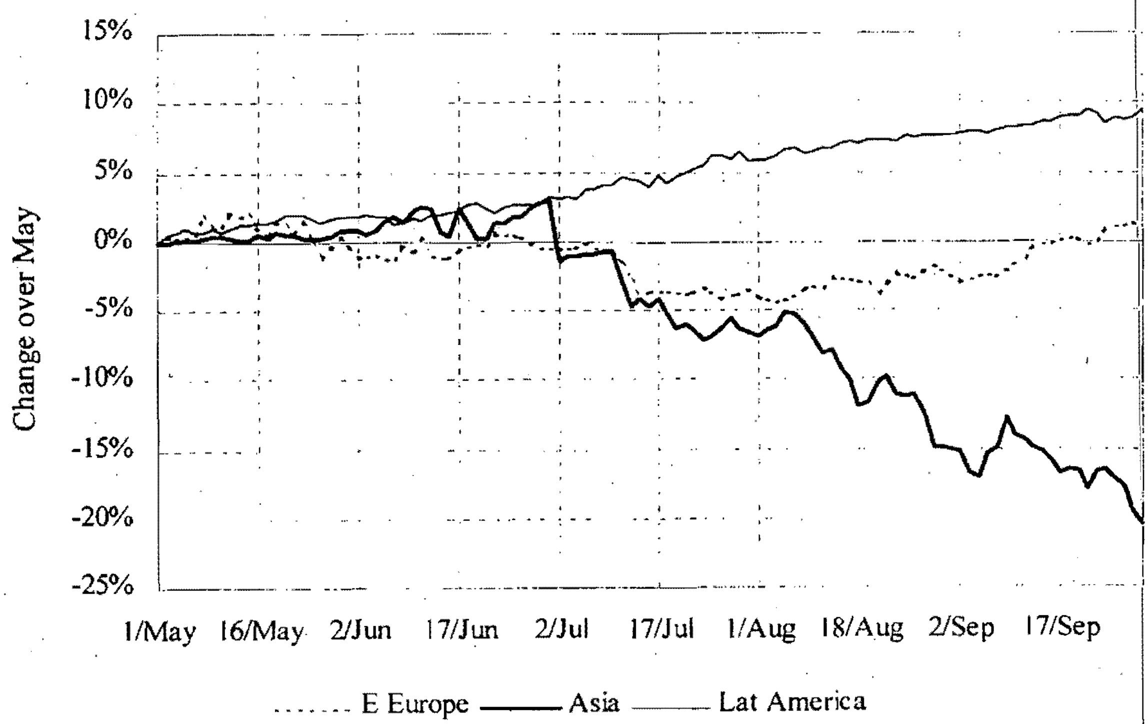
- The collapse in the price of memory chips in 1996 undoubtedly has played a role in the recent weakness in U.S. imports from "electronic dependent" countries like Malaysia and Korea. Much of the volatility in U.S. imports from Korea (which increased by 23% in 1995 and then fell by 6.3% in 1996) can be attributed to volatility in the price of memory chips.

- The IMI model tries to incorporate these recent developments into its projections. IMI baseline projections have U.S. exports to Southeast Asia and Korea increasing more rapidly than U.S. imports. The baseline U.S. trade deficit with Southeast Asia and Korea consequently is expected to stabilize in 1997 and to shrink substantially in 1998. The IMI baseline also assumes a substantial -- though less rapid than in 1996 -- increase in Japanese imports from South East Asia in both 1997 and 1998. Japan's trade surplus with the region was therefore expected to grow much less rapidly than might be expected given the yen's substantial depreciation against South East Asian currencies and the Korean won early in 1997.

Southeast Asian Currencies (May 1, 1997 - October 1, 1997)



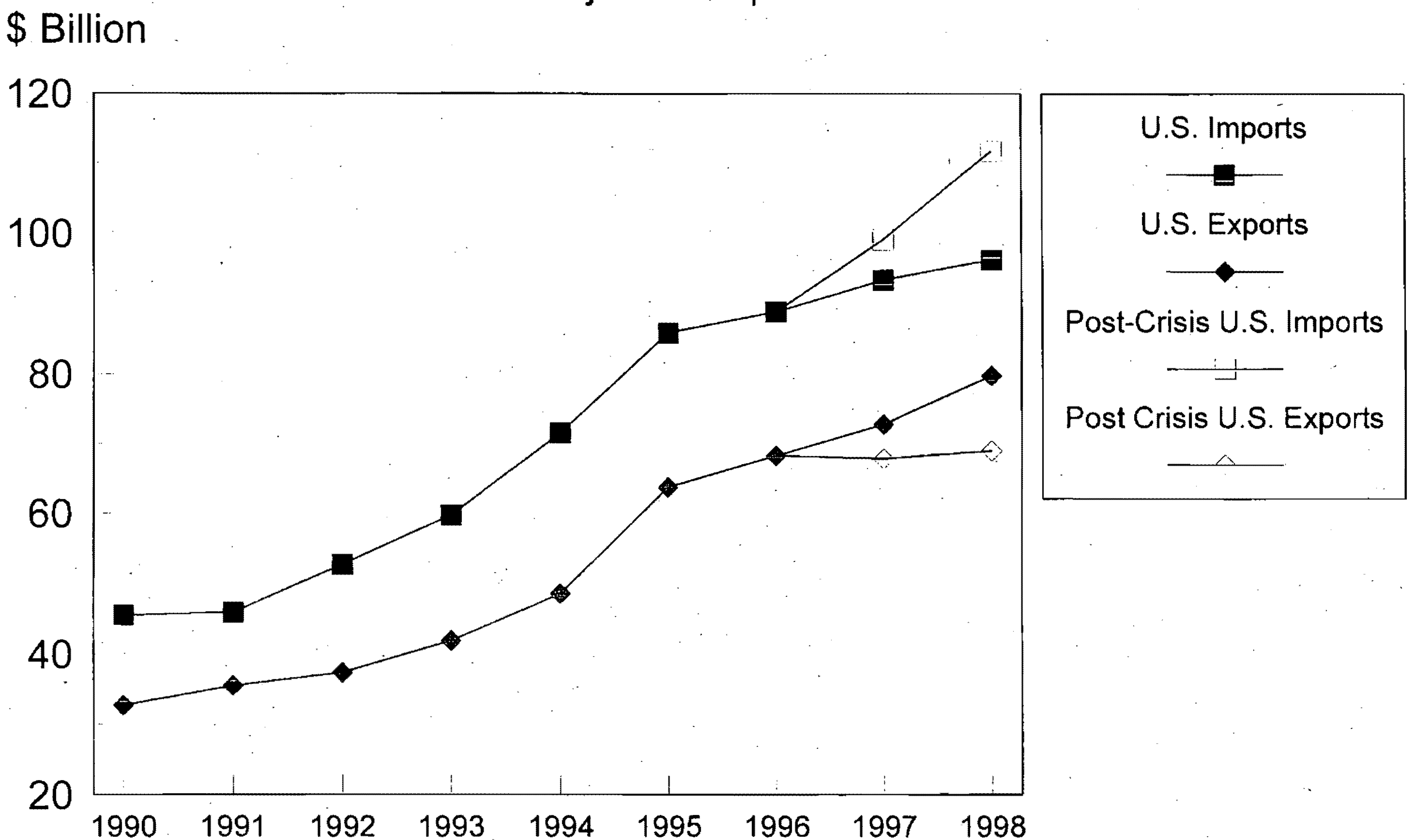
JP Morgan Emerging Markets Equity Indices (May 1, 1997 - September 30, 1997)



drafted by Kathleen M.P. Byrne/Susan Rzemien/Martin Geislinger

U.S. Trade with Southeast Asia and Korea

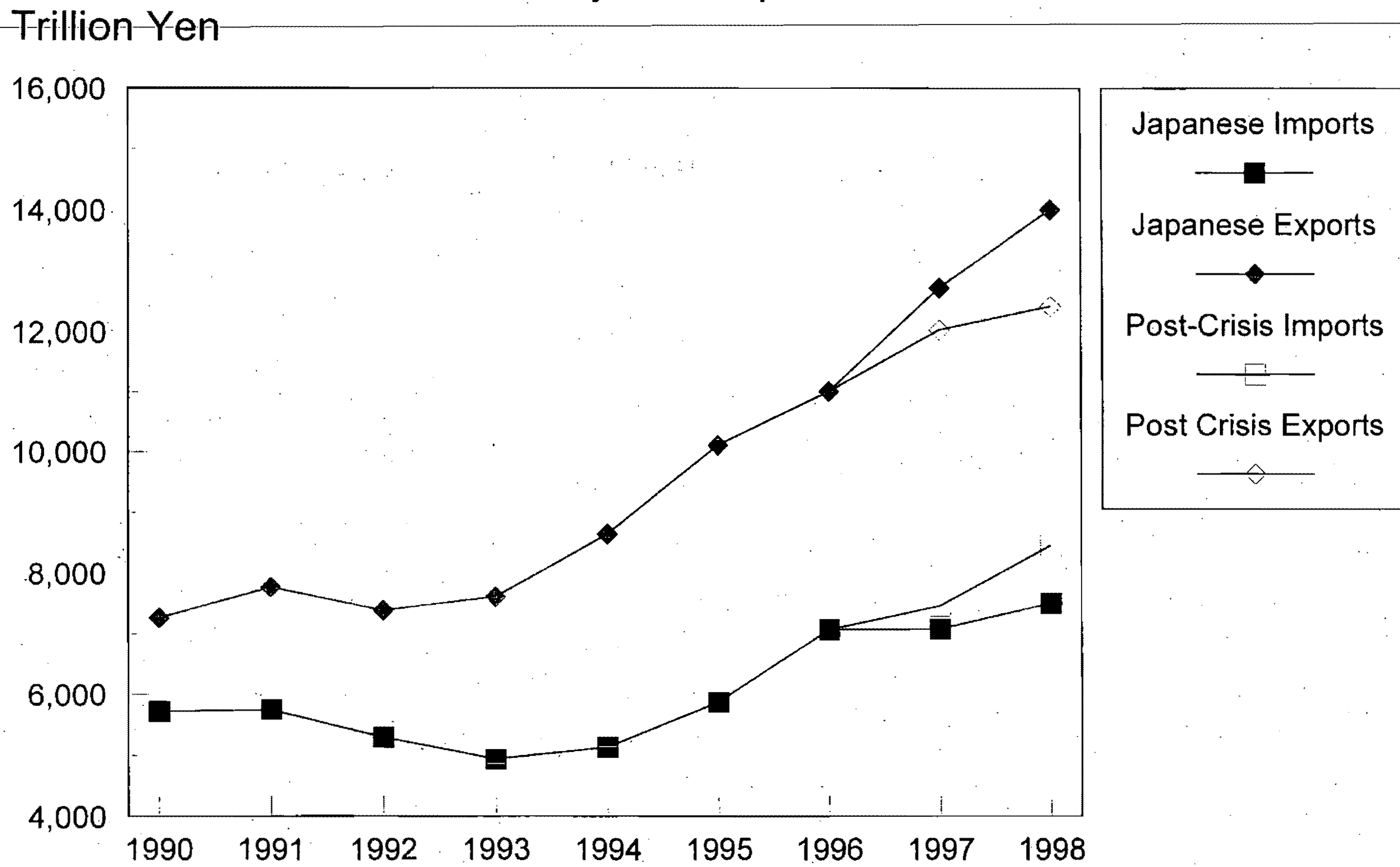
Baseline v. Projected Impact of "Thai" Crisis



Southeast Asia = Indonesia, Malaysia, Philippines, Singapore and Thailand

Japanese Trade with Southeast Asia and Korea

Baseline v. Projected Impact of "Thai" Crisis



Southeast Asia = Indonesia, Malaysia, Philippines, Singapore and Thailand

APPENDIX

IMI Model Assumptions

- The model assumes that there is not a significant lag between exchange rate movements and changes in trade flows -- as was the case with Mexico. In practice, small lags may delay some of the real impact.

- The price elastiticity of U.S. and Japanese imports and exports is uniformly assumed to be 0.9 -- a number derived from recent work by the Federal Reserve. A 1.0% real devaluation translates into a 0.9% increase in real imports and a 0.9% fall in real exports.

- All currencies are projected to stabilize near their October 1, 1997 levels. The Thai baht is projected to stabilize at 36 baht/ dollar, the Malaysian ringgit at 3.36/$, the Inndonesian rupiah at 3415/$, the Philippine peso at 34.8/$, the Korean won at 905/$ and the Singapore dollar at 1.52/$. The yen is expected to remain at 120 yen/dollar.

- These nominal depreciations translate into a very large real depreciation of the Thai baht, the Indonesian rupiah, the Malaysian ringgit and the Philippine peso against the dollar (between 25% and 30% by the end of 1998). The South Korean won and Singapore dollar, in contrast, are expected to depreciate by less than 10% in real terms.

- Inflation rates in the ASEAN 4 most affected by the crisis are expected to increase by 2.0% in 1997 and by 3.0% in 1998. This is a much smaller increase in inflation than in Mexico -- a reflection of the fact that large nominal depreciations have been generalized this year and thus changes in the nominal exchange rate between ASEAN countries and between ASEAN countries and Japan have not been exceptionally large. This assumption may need to be altered.

- INA estimates that recent developments will significantly slow Thai growth -- to 0.5% in 1997 and 1.5% in 1998 relative to baseline projections of 6.6% growth. Small dips in growth rates are also expected in South Korea, Malaysia, Indonesia and the Phillippines.

- Efforts were made to calibrate the model to reflect trends in trade between Southeast Asia and the United States. The baseline assumes that U.S. exports to Southeast Asia would have increased by 8.0% in 1997 and by nearly 11% in 1998 in the absence of any exchange rate crisis, while U.S. imports from Southeast Asia would have increased by 7.6% in 1997 and by 3.3% in 1998. The acceleration of U.S. export growth in 1998 reflects an assumption that investment in Southeast Asia would begin to recover after a relatively slow 1996 and 1997; the deceleration of U.S. imports from South East Asia reflects a predicted slowing in the U.S. growth rate after the strong expansion in 1997.

- The baseline assumes that the dollar value of U.S. imports from South Korea will *rise* in the second half of 1997, partially offsetting the weak first two quarters. In 1998, U.S.

imports from South Korea are projected to rise in line with overall U.S. imports. This projection is consistent with recent *Consensus Forecasts* predictions.

UNITED STATES SUMMARY
TRADE EFFECTS UNDER BASELINE AND SCENARIO ASSUMPTIONS
(US$ millions)

BASELINE ASSUMPTIONS:	SCENARIO 1 ASSUMPTIONS:
> Southeast Asian growth ~7%.	> INA growth projections (See attached: Summary of Key Assumptions)
> Korean growth 5.8% in 1997; 5.5% in 1998.	> INA growth projections (Attached)
> No change in real bilateral exchange rates.	> INA real bilateral exchange rate projections (Attached)
> U.S. grows 3.6% in 1997 and 2% in 1998.	< See baseline.
> Income elasticities = 1 (except U.S. =2)	< See baseline.
> Price elasticities = .9 for U.S.	< See baseline.
> Trend increase in US exports to SE Asia:	< See baseline.
> 2% in 1997; 3% in 1998	< See baseline.
> No trend increase in US exports to NE Asia	< See baseline.
> Trend fall in 1997 U.S. imports from Korea of 10%	< See baseline.
> No trend change in US imports from Korean in 1998	< See baseline.

UNITED STATES

	1996			1997 Net Exports			1998 Net Exports		
	Net Exports	Exports	Imports	Scenario 1	Baseline	Difference (from baseline)	Scenario 1	Baseline	Difference
INDUSTRIAL COUNTRIES									
Japan	(49,213)	65,954	115,167	(74,038)	(56,186)	(17,853)	(78,281)	(59,846)	(18,434)
as % of U.S. GDP	-0.6%	0.9%	1.5%	-0.9%	-0.7%	-0.2%	-1.0%	-0.7%	-0.2%
DEVELOPING COUNTRIES									
East Asia									
South Korea	3,042	25,653	22,611	1,511	4,102	(2,591)	2,466	5,524	(3,057)
Taiwan	(12,362)	17,540	29,902	0	0	0	0	0	0
Southeast Asia/ Majors									
Indonesia	(4,273)	3,977	8,250	(5,847)	(4,367)	(1,481)	(8,117)	(3,984)	(4,133)
Malaysia	(9,283)	8,546	17,829	(11,691)	(9,994)	(1,696)	(16,357)	(9,605)	(6,752)
Philippines	(2,019)	6,142	8,161	(2,805)	(1,611)	(1,195)	(4,563)	(754)	(3,808)
Singapore	(3,623)	16,720	20,343	(5,248)	(4,359)	(889)	(6,067)	(3,775)	(2,292)
Thailand	(4,138)	7,198	11,336	(7,235)	(4,425)	(2,810)	(10,323)	(3,861)	(6,462)
SE Asia	(23,336)	42,583	65,919	(32,827)	(24,756)	(8,071)	(45,427)	(21,979)	(23,448)
as % of U.S. GDP	-0.31%	0.56%	0.87%	-0.42%	-0.32%	-0.10%	-0.57%	-0.27%	-0.29%
SE Asia+SKorea	(20,294)	68,236	88,530	(31,316)	(20,654)	(10,662)	(42,961)	(16,456)	(26,505)
as % of U.S. GDP	-0.27%	0.90%	1.17%	-0.40%	-0.26%	-0.14%	-0.54%	-0.21%	-0.33%

Treas./IMI/ B. Setser, C. Carnes
1-October-97

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South East Asia Trade Model
Summary of Key Model Assumptions
UNITED STATES

UNITED STATES	1997 ASSUMPTIONS (baseline) GDP grows (real)	Income Elasticity of ex/imports	FX/$ +/- (real)	Price Elasticity of ex/imports	MODIFICATIONS 1997 US Exports	1997 US Imports	1997 ASSUMPTIONS (scenario 1) GDP grows (real)	Income Elasticity of ex/imports	FX/$ +/- (real)	Price Elasticity of ex/imports	MODIFICATIONS 1997 US Exports	1997 US Imports
UNITED STATES	3.6%	2 ---		1			3.5%	2 ---		0.9		
INDUSTRIAL COUNTRIES												
Japan	2.0%	1	0.0%	1			2.0%	1	-10.4%	0.9		
DEVELOPING COUNTRIES												
East Asia												
South Korea	5.8%	1	-2.4%	1		-10.0%	5.5%	1	-8.1%	0.9		-10.0%
Taiwan												
Southeast Asia/ Majors												
Indonesia	7.3%	1	1.1%	1	2.0%		6.4%	1	-11.1%	0.9	2.0%	
Malaysia	8.0%	1	-1.1%	1	2.0%		7.0%	1	-7.4%	0.9	2.0%	
Philippines	6.1%	1	3.6%	1	2.0%		5.1%	1	-4.6%	0.9	2.0%	
Singapore	7.1%	1	-2.2%	1	2.0%		6.5%	1	-4.4%	0.9	2.0%	
Thailand	6.6%	1	-0.5%	1	2.0%		0.5%	1	-14.0%	0.9	2.0%	

UNITED STATES	1998 ASSUMPTIONS (baseline) GDP grows (real)	Income Elasticity of ex/imports	FX/$ +/- (real)	Price Elasticity of ex/imports	MODIFICATIONS 1998 US Exports	1998 US Imports	1998 ASSUMPTIONS (scenario 1) GDP grows (real)	Income Elasticity of ex/imports	FX/$ +/- (real)	Price Elasticity of ex/imports	MODIFICATIONS 1998 US Exports	1998 US Imports
UNITED STATES	2.0%	2 ---		0.9			2.0%	2 ---		0.9		
INDUSTRIAL COUNTRIES												
Japan	1.9%	1	0	0.9			1.9%	1	0.0%	0.9		
DEVELOPING COUNTRIES												
East Asia												
South Korea	5.6%	1	1.8%	0.9			6.1%	1	0.8%	0.9		
Taiwan												
Southeast Asia/ Majors												
Indonesia	7.4%	1	2.2%	0.9	3.0%		6.5%	1	-17.4%	0.9	3.0%	
Malaysia	8.3%	1	0.4%	0.9	3.0%		7.2%	1	-17.1%	0.9	3.0%	
Philippines	6.3%	1	3.8%	0.9	3.0%		5.4%	1	-13.1%	0.9	3.0%	
Singapore	7.4%	1	-1.0%	0.9	3.0%		7.0%	1	-4.3%	0.9	3.0%	
Thailand	6.6%	1	0.016	0.9	3.0%		1.5%	1	-15.0%	0.9	3.0%	

JAPAN SUMMARY
TRADE EFFECTS UNDER BASELINE AND SCENARIO ASSUMPTIONS

(US$ millions)

BASELINE ASSUMPTIONS:

> Southeast Asian growth ~7%.
> Korean growth 5.8% in 1997; 5.5% in 1998.
> Yen depreciates 10% in 1997
> Yen stable in 1998
> Japan grows 2.0% in 1997 and 1.9% in 1998.
> Income elasticities = 1
> Price elasticities = .9 for Japan
> Trend 10% increase in Japanese imports in 1997, 1998

SCENARIO 1 ASSUMPTIONS:

> INA growth projections (See attached Summary of Key Assumptions: Japan)
> INA growth projections
> INA/ IMI real bilateral exchange rate projections (Attached)
> INA/ IMI real bilateral exchange rate projections (Attached)
< See baseline.
< See baseline.
< See baseline.
< See baseline.

JAPAN

	1996			1997 Net Exports			1998 Net Exports		
	Net Exports	Exports	Imports	Scenario 1	Baseline	Difference	Scenario 1	Baseline	Difference
INDUSTRIAL COUNTRIES									
U.S.	49213	115167	65954	74038.47	56185.94	-17852.5	78280.51	59846.12	-18434.4
as % of Japan GDP	1.2%	1.6%	2.8%	1.7%	1.3%	-0.4%	1.8%	1.4%	-0.4%
DEVELOPING COUNTRIES									
East Asia									
South Korea	12141.7	26602.78	14461.08	14579.57	16445.35	-1865.78	17739.64	19521.94	-1782.3
Taiwan	0	0	0	0	0	0	0	0	0
Southeast Asia/ Majors									
Indonesia	-5559.68	8216.775	13776.45	-5971.77	-4583.62	-1388.15	-8538.4	-4526.17	-4012.23
Malaysia	3249.217	13903.5	10654.28	4319.277	5750.892	-1431.61	2959.107	6513.979	-3554.87
Philippines	3522.567	7622.775	4100.208	4201.997	5036.151	-834.153	3404.387	5879.204	-2474.82
Singapore	12190.38	18829.88	6639.5	14201.01	14668.3	-467.285	14576.88	15748.69	-1171.81
Thailand	7306.775	16566.4	9259.625	6740.494	9761.298	-3020.8	2821.963	11022.79	-8200.82
SE Asia	20709.27	65139.33	44430.07	23491.02	30633.02	-7142.01	15223.94	34638.49	-19414.6
as % of Japan GDP	0.50%	1.56%	1.07%	0.55%	0.72%	-0.17%	0.35%	0.80%	-0.45%
SE Asia+SKorea	32850.97	91742.12	58891.15	38070.58	47078.37	-9007.79	32963.58	54160.43	-21196.8
as % of Japan GDP	0.79%	2.20%	1.41%	0.90%	1.11%	-0.21%	0.76%	1.25%	-0.49%

South East Asia Trade Model
Summary of Key Model Assumptions
JAPAN

	1997 ASSUMPTIONS (baseline)				MODIFICATIONS		1997 ASSUMPTIONS (scenario 1)				MODIFICATIONS	
	GDP grows (real)	Income Elasticity of ex/imports	FX/$ +/- (real)	Price Elasticity of ex/imports	1997 Exports	1997 Imports	GDP grows (real)	Income Elasticity of ex/imports	FX/$ +/- (real)	Price Elasticity of ex/imports	1997 Exports	1997 Imports
INDUSTRIAL COUNTRIES												
United States	3.6%	2 - - -		1			3.6%	2 - - -		0.9		
DEVELOPING COUNTRIES												
East Asia												
South Korea	5.8%	1	7.9%	10.0%			5.5%	1	2.7%	0.9		
Taiwan												
Southeast Asia/ Majors												
Indonesia	7.3%	1	9.3%	10.0%		10.0%	6.4%	1	0.3%	0.9		10.0%
Malaysia	8.0%	1	11.0%	10.0%		10.0%	7.0%	1	3.5%	0.9		10.0%
Philippines	6.1%	1	13.5%	10.0%		10.0%	5.1%	1	6.2%	0.9		10.0%
Singapore	7.1%	1	7.8%	10.0%		10.0%	6.5%	1	5.8%	0.9		10.0%
Thailand	6.6%	1	9.8%	10.0%		10.0%	0.5%	1	-2.5%	0.9		10.0%

	1998 ASSUMPTIONS (baseline)				MODIFICATIONS		1998 ASSUMPTIONS (scenario 1)				MODIFICATIONS	
	GDP grows (real)	Income Elasticity of ex/imports	FX/$ +/- (real)	Price Elasticity of ex/imports	1998 Exports	1998 Imports	GDP grows (real)	Income Elasticity of ex/imports	FX/$ +/- (real)	Price Elasticity of ex/imports	1998 Exports	1998 Imports
INDUSTRIAL COUNTRIES												
Japan	2.0%	2 - - -		0.9			2.0%	2 - - -		0.9		
DEVELOPING COUNTRIES												
East Asia												
South Korea	5.6%	1	4.0%	0.9			6.1%	1	4.1%	0.9		
Taiwan												
Southeast Asia/ Majors												
Indonesia	7.4%	1	4.4%	0.9		10.0%	6.5%	1	-6.1%	0.9		10.0%
Malaysia	8.3%	1	2.5%	0.9		10.0%	7.2%	1	-4.3%	0.9		10.0%
Philippines	6.3%	1	5.9%	0.9		10.0%	5.4%	1	-6.0%	0.9		10.0%
Singapore	7.4%	1	1.1%	0.9		10.0%	7.0%	1	-1.0%	0.9		10.0%
Thailand	6.6%	1	4.0%	0.9		10.0%	1.5%	1	-11.5%	0.9		10.0%

Asian currency crisis fall-out for Japanese exports

M.Grewe/Finatt Tokyo
September 17, 1997

Summary

With exports as the one bright spot in an otherwise bleak Japanese economy, the Asian currency crisis, and its potentially adverse consequences for Japanese export growth, come at an inopportune time. Despite the increasing importance of Southeast Asia to the Japanese economy, however, market analysts in Tokyo have projected a likely negative impact of only a quarter to a third of a percent of Japan's real GDP growth for next year. While Japanese policymakers will surely not welcome another blow to Japan's fragile recovery, domestic demand considerations will play a much bigger role in the ability to sustain the recovery than this relatively small impact from the Asian currency crisis.

Economic importance of Asia

The spectacular growth of the Southeast Asian economies over the past decade has increased their importance to Japan as export markets, and more recently, as production platforms for Japanese companies. With the increasing development of these economies, Japan's trade structure with the region has also evolved. Japanese exports to the region have shifted toward more capital-and technology-intensive goods, as Japanese investment flowed into Southeast Asia. In FY96, about 18 percent of Japan's exports went to ASEAN (about 12 percent to Thailand, Malaysia, Indonesia and the Philippines), while nearly 40 percent went to Asia, including China, Korea, Taiwan and Hong Kong. (See table below.) Currently, more than 60 percent of Japan's exports to Asia are capital goods.

Japanese Merchandise Exports to Selected Asian Countries

Billion yen	FY96 exports	Percent of Total Japanese Exports	Year-on-Year Increase
S. Korea	3249	7.1	9.7
Taiwan	2898	6.3	5.5
Hong Kong	2843	6.2	8.7
Singapore	2247	4.9	0.2
Thailand	2002	4.3	4.0
Malaysia	1686	3.7	4.0
Philippines	967	2.1	34.9
Indonesia	1041	2.3	8.7

During the 1980's, East Asian intermediate goods, such as iron and steel, and consumer nondurables, such as clothing and merchandise, made up the majority of Japanese imports from the region. As East Asian manufactured goods became more competitive in the early 1990's, Japan has seen an appreciable increase in imports of consumer durables such as household electrical appliances, and more recently information-related goods, such as semiconductors and personal computers from the region. In 1996, about 15 percent of Japan's imports came from ASEAN. They were primarily made up of machinery and equipment, and mineral fuels (oil and LNG from Indonesia and Malaysia).

The composition of trade between Japan and Southeast Asia reflects Japan's increased investment in the region. According to a recent report by Jesper Koll of JP Morgan, almost one-third of Japan's stock of foreign direct investment is now located in Asia. The impact of Japanese investment on local economies is demonstrated by the fact that one in 7 Thai manufacturing workers is employed by a Japanese company. In 1996, offshore profits earned in foreign operations of Japanese firms totaled 1.6 trillion yen (about $14 billion). Of this amount, 738 billion yen ($6 billion) was earned in Asia, with 182 billion yen ($1.5 billion) earned in the ASEAN 4 countries of Thailand, Malaysia, Indonesia and the Philippines. These profits are included in the Japanese current account as investment income, increasing the current account surplus.

Estimates of Currency Crisis Effects

The effect on the Japanese economy of the slowdown in growth in Southeast Asia that is expected to result from the currency crisis is difficult to estimate. Clearly, one would expect Japanese exports of consumer goods and other price-sensitive products to fall, as these goods will be more expensive for Southeast Asian consumers. However, exports of capital or intermediate goods to Japanese firms that are producing in Southeast Asia for export to third markets may be unaffected, or even increase as the final products become more competitive because the labor and local inputs are cheaper due to host country currency devaluations. On the import side, Southeast Asian products will be cheaper, likely pushing up Japanese imports in volume terms, although the effect of cheaper prices will somewhat offset the increase in volume when exports are viewed in value terms. Thus, nominal Japanese imports from Southeast Asia may rise only slightly.

Another factor discussed by Jesper Koll of JP Morgan is that the recent devaluations in Southeast Asia have been in dollar terms. According to Koll, taking into account the yen's weakening against the dollar over the past year, the currency moves of this summer bring the yen "back to the average levels of last year when Japan's exports grew smartly." Analysis of country-by-country currency movements is not within the scope of this cable, but it is worth remembering that the yen had depreciated earlier this year against the Southeast Asian currencies that had been more closely tied to the dollar, making the recent devaluations in the region less severe against the yen than the dollar. Even assuming a constant yen/dollar rate, a rough calculation of the real effective appreciation of the yen against the Thai. baht, Philippine peso, Malaysian ringgit, Indonesian rupiah and Korean won indicates that the yen appreciated by only about 3 percent as a result of the crisis.

Some market analysts in Tokyo have produced estimates of the impact of the devaluations on Japanese exporters. Peter Morgan of HSBC James Capel projects that the overall impact on the Japanese trade could reduce real GDP by 0.26 percent next year. Morgan notes that Japan's exports to the ASEAN 4 account for 12.4 percent of total Japanese exports. In a regression analysis, he found that from 1986-96 a one percent cut in the combined economic growth of Thailand, Malaysia, Indonesia and the Philippines would reduce Japanese export growth to the region by 10 percent. Using this rather high income elasticity of 10, a 1% drop in growth in those four countries would subtract 1.2 percent from overall real merchandise export growth. Merchandise exports account for 11 percent of Japanese GDP in real terms, implying a direct impact on real GDP of .13 percent for each 1 percent drop in ASEAN 4 real GDP growth. Morgan foresees a two percentage point drop in the GDP growth rate for the ASEAN 4 next year, leading to a negative impact of .26% of real Japanese GDP, implying a 20% drop in Japanese exports to the region. He qualifies his analysis, saying that this estimate seems too large, particularly for 1997, when real exports to the area have already risen 8 percent year-on-year. Morgan also stated that the overall competitiveness of the yen appears to be a more important factor for Japanese import demand than the effective level of the Southeast Asian currencies, and therefore believes that weaker ASEAN 4 currencies will not necessarily lead to an upsurge of imports by Japan.

Robert Feldman of Salomon Brothers projects an effect in the same range, terming the impact "discernible, but moderate." He forecasts a negative impact between 0.18 and 0.36 percent of real GDP, noting that the high end is unlikely because some losses in exports to Southeast Asia could be made up in other markets if the weakening of the yen versus the currencies of other industrial countries persists. Feldman also explains that the effects on Japanese exporters will differ by industry and firm. Firms which export components and re-import assembled products will be affected less, while Japanese industries that compete with imports from Southeast Asia that will now be cheaper, such as textiles, chemicals, metals and metal products, will be more adversely affected. Other firms likely to lose out are those that supply goods and services related to public investment in Southeast Asia, which is likely to be curbed by fiscal austerity measures, already being discussed in Thailand and Malaysia, according to JP Morgan's Koll. Japanese firms are unlikely to be affected substantially by the increased competitiveness of southeast Asian products in third markets, as those countries' exports compete more against products from China and other Asian countries than they do against Japanese products.

Similarly, the effect of the crisis on the profits of Japanese subsidiaries in the region will vary by sector and firm, depending on the degree of production for the local market, re-export to Japan, or export to third countries. Firms producing for local markets will be hurt by slowing growth, while those producing for export may benefit from lower prices of labor and local inputs. As mentioned above, Japanese firms earned profits of about $1.5 billion from operations in the ASEAN 4 in 1996. Assuming these profits were cut in half by the slowing growth in the region, Japan's current account surplus would fall by $750 million, or less than 1% of this year's projected current account surplus.

Korea's economic difficulties may also dampen Japanese exports somewhat. Korea received about 7 percent of Japanese exports in FY96. However, the Korean slowdown began last year, and while the devaluations in Southeast Asia have spilled over to further depreciation of the won recently, the revision of economic growth and import growth projections for Korea are unlikely to be as dramatic. In addition, the depreciation of the Korean won has primarily been against the dollar, and it has moved comparatively little against the yen.

Conclusion

Reductions in expected export volume growth for what were previously some of Japan's most rapidly growing exports markets is clearly not good news for a Japanese economy struggling to stay on the recovery path. Nonetheless, the estimates of the impact on Japan's real GDP growth of about 0.3 percent of GDP are fairly small when compared to the impact of domestic policy considerations, such as the combined effect of April's consumption tax hike and the expiration of the 2 trillion yen temporary income tax rebate in December 1996, which total 1.4 percent of GDP. While exports may not be quite as strong an engine of growth for the remainder of 1997 and 1998 as had been thought, we expect net exports to remain a positive contributor to growth.

The impact of the crisis on Japan's current account surplus will depend on the magnitude of some of the factors mentioned above, including the share of Japanese

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TOKYO ECONOMIC RESEARCH WEEKLY REPORT

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JAPANESE ECONOMIC/MARKET ANALYSIS

SEPTEMBER 4, 1997

Issues and Prospects

Salomon Brothers

Japan and the Asian Currency Crisis

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- The potential impact effects of the Asian currency crisis on Japanese growth are likely to be discernable but moderate. Nevertheless, risks of major effects on Japan do exist.

- Japan is not likely to alter monetary policy because of Asian currency disruptions, unless domestic growth is significantly threatened. ...

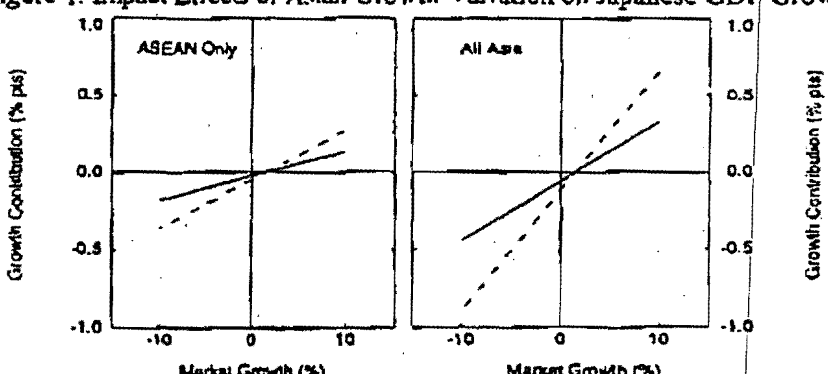
Impact Effect = (ΔX - ΔM)/GDP

The change of exports depends on demand and price elasticities, *foreign* market growth by region, and the shares of regions in total *exports*.

The change of imports depends on demand and price elasticities, *domestic* market growth, and shares of regions in total *imports*.

ΔX: Change of exports
ΔM: Change of imports

Figure 1. Impact Effects of Asian Growth Variation on Japanese GDP Growth



Note: Market growth denotes the growth of the market receiving Japanese exports. Japanese market growth is assumed to be 2%. The solid line is drawn on the assumption that the demand elasticities of both Japanese exports and imports are 1.0. The dotted lines assume that both these elasticities are 2.0 -- an assumption that posits a strong competitive effect from real exchange rate changes. The growth contribution is negative even when foreign market growth is zero, because domestic market growth is assumed to be 2% regardless of foreign market growth. The imports generated by domestic growth cause a negative impact on domestic GDP.
Source: Salomon Calculations.

Disruptions to Asian growth could have a discernable, if moderate, impact on Japanese growth.

Japan may suffer a discernable, but moderate impact on real growth as a result of the ongoing currency crisis in Asia-Pacific countries (Figure 1). At this stage, it appears unlikely that the impact will be large enough to alter the course of monetary policy in Japan. Nevertheless, a deeper, broader, or more prolonged growth problem in Asia could raise the likelihood of a postponement of Japanese interest rate hikes beyond our current expectation of the spring of 1998. The Japanese government will likely focus its support of policy adjustments within Asian countries on internationally coordinated efforts.

Investor concern over the impact of the Asian currency disruptions on Japan is probably overblown.

Some investors have become highly concerned that recent disruptions in Asia could devastate Japanese growth.[1] In fact, however, simple calculations show that the effect on Japan, while potentially important, would be far from overwhelming. For example, Japanese exports to all of the ASEAN region[2] grew by 10% in 1996 to Y7.95 trillion, a sum equal to about 18% of total Japanese exports (Figure 2). Because total exports constitute somewhat less than 10% of GDP, a complete reversal of last year's growth would have an impact effect[3] of about negative 0.18% on GDP (=10% growth of 18% of exports, which in turn are 10% of GDP). Even on the extreme assumptions that market growth dropped by 10% *and* exchange rate changes make exports much less competitive abroad and imports more competitive in Japan, the impact effect would be 0.36% of GDP. Moreover, some of these losses could be made up in other markets if the weakening of the yen versus industrial countries since early summer persists.

The share of ASEAN in Japan's trade is large, but not overwhelming.

Figure 2. Japanese Trade With Asia and ASEAN (Yen In Billions, and Percentage)

	Exports	Share of Japan Exports	Growth Rate	Imports	Share of Japan Imports	Growth Rate	Trade Balance	Pct. Chg. of Trade Balance
				Japanese Trade with ASEAN				
1992	¥5,152.5	12.0 %	1.5 %	¥3,995.9	13.5 %	-6.6 %	¥1,156.5	44.9 %
1993	5,496.5	13.7	6.7	3,791.8	14.1	-5.1	1,704.7	47.4
1994	6,171.8	15.2	12.3	3,871.4	13.8	2.1	2,300.4	35.0
1995	7,237.0	17.4	17.3	4,450.8	14.1	15.0	2,788.3	21.1
1996	7,955.1	17.8	9.9	5,702.7	15.0	28.1	2,252.4	-19.2
				Japanese Trade with Asia				
1992	¥14,695.0	34.2 %	4.1 %	¥9,430.4	31.9 %	-4.2 %	¥5,264.6	23.2 %
1993	14,956.8	37.2	1.8	9,016.5	33.6	-4.4	5,940.3	12.8
1994	16,054.5	39.6	7.3	9,751.0	34.7	8.1	6,303.5	6.1
1995	17,957.2	43.2	11.9	11,360.6	36.0	16.5	6,596.6	4.7
1996	19,519.2	43.6	8.7	13,960.9	36.7	22.9	5,558.3	-15.7

Source Ministry of Finance.

[1] Some investors are comparing the effect of the Asian crisis on Japan to that of the 1995 Mexican peso crisis on the United States. The parallel is probably overdrawn for several reasons. First, Mexico took 10% of US exports in 1994, the year before the peso crisis, while Thailand took only 4.4% of Japanese exports in 1996. Second, real growth in Mexico swung from 4.5% in 1994 to *negative* 6.2% in 1995, whereas a much milder drop of growth is likely in Asia countries. Third, the drop of the peso against the US dollar was 50% initially (November 94 to April 1995), whereas the drop of the Thai baht against the yen has been only about 20% (about ¥4.4/B in June 1997 to about ¥3.6 recently). Other Asian currencies have depreciated against the yen by even less.

[2] ASEAN currently includes Brunei, Indonesia, Laos, Malaysia, Myanmar, Philippines, Singapore, Thailand, and Vietnam.

[3] The impact effect is defined as the difference between changes of exports and imports, divided by base period GDP. The change of exports is derived as the product of (1) the demand elasticity of exports to the region, (2) the change of market growth in the region, and (3) the share of the region in overall Japanese exports. The change of imports is derived in a similar fashion. The calculations in the text assume Japanese market growth to be 2%. Elasticities are assumed to be either 1.0 (which would imply no effect on growth from competitiveness changes) or 2.0, which would imply a major effect. The two elasticities are

Even if impact effects are not large, there are risks of extended effects on Japan from three sources.

Although direct impact effects may be modest, the Asian currency disruptions do raise risks of expanded effects on the Japanese economy. First, the disruptions could begin to affect economic growth in other parts of the Asian region. Japanese exports to Asia as a whole are more than double those to ASEAN, and hence contagion could expand the impact of disruptions on Japan. Second, Asian currencies have become more competitive against the yen, implying that Japan's imports from Asia may reaccelerate.[4] Third, the impact effects on Japanese growth are not the whole story, because the final effect of a shock on GDP growth is the product of the Keynesian multiplier and the impact effect.[5]

Microeconomic effects of the Asian crisis will differ substantially by industry.

At the microeconomic level, the effects of Asian disruptions in Japan will differ substantially by industry and by firm. Japanese exports to Asia are concentrated in the machinery category (see Figure 3), particularly general and electric machinery, although vehicles take only about 4% of Japanese exports to Asia. The impact of Asian disruptions on individual firms could be lessened for those who export components and re-import assembled products. Effects on Japanese industries that compete with imports could also be substantial, such as textiles, chemicals, metals, and metal products. In addition, the effects of Asian contraction may fall more heavily in some sectors of the Asian economies (e.g. construction) than others. Hence, Japanese firms whose exports are dependent on such sectors stand to suffer more than others.

Japan's exports to Asia are far more concentrated by product than are imports.

Figure 3. Japanese Trade Patterns with Southeast Asia[a] and China, 1996 (Yen in Billions, and Percentage)

	Japanese Exports		Japanese Imports	
	Level	Share	Level	Share
Food	¥146.8	0.8 %	¥1,765.5	14.5 %
Raw Material	–	–	864.9	7.1
Mineral Fuel	–	–	1,834.8	15.1
Textiles	662.9	3.6	2095	17.2
Chemicals	1822	9.8	461	3.8
Non-ferrous Metals	372.2	2.0	279.3	2.3
Metal Products	1,879.1	10.1	618.4	5.1
Machinery	12,132.5	65.0	2,181.3	17.9
• General Machinery[b]	4,820.2	25.8	NA	NA
• Electrical Equipment	5,639.6	30.2	1,388.3	11.4
• Vehicles	808.9	4.3	1.7	0.0
• Precision Machinery	863.8	4.6	791.3	6.5
Others	1,646.6	8.8	2,082.8	17.1
Total	¥18,662.1	100.0 %	¥12,182.8	100.0 %

Notes: [a] Southeast Asia is defined by Japanese trade statistics to include Republic of Korea, Taiwan, Singapore, Hong Kong, Thailand, Malaysia, Brunei, Philippines, Indonesia, Cambodia, Laos, Myanmar, Nepal, India, Pakistan, Sri Lanka, Maldives, Bangladesh, East Timor, Macao, Afghanistan, and Bhutan.
[b] NA: Not applicable. The general machinery category exists in the export classification, but not in the import classification.
Source: Ministry of Finance, and Salomon calculations.

Another channel of impact on Japan comes through the financial sector.

In addition to direct effects on Japan from trade, the Asian currency disruptions could affect Japan through the financial system. Although small relative to total banking system assets of US$6,609 billion, Japanese bank claims on the ASEAN region amount to US$177 billion, including US$119 billion outside Singapore and US$59 billion to Singapore (Figure 4). Any extra action required to support growth in Asia could distract from ongoing efforts to revive Japan's domestic financial sector.

[4] Japanese import growth from Asia as a whole declined from 30% in mid 1996 on a six month moving average basis to 10% in mid-1997 and from ASEAN from 37% in mid-1996 to 10% in mid-1997.

Japan is likely to avoid use of monetary policy in response to the Asian currency disruptions.

Monetary policy is unlikely to be Japan's preferred means for dealing with the effects of the Asian currency disruptions. History teaches that monetary policy is best used for domestic objectives;[6] holding Japanese interest rates artificially low in order to deal with a growth problem in Asia would have a high cost and a low probability of success. Moreover, linkage of Japanese interest rates to Asian currency movements might backfire, either by inciting speculation or by dulling the incentive for Asian countries to address the root of currency disruptions through domestic policy adjustment.

Japanese banks play a larger role in Asia than in other regions.

Figure 4. International Claims by Banks on Countries Outside the BIS Reporting Area (U.S. Dollar in Billions, End-December 1996)

	Japan	All Reporting Area Banks	Japan Share
All Countries (Excludes Offshore Centers)	US$169.7	US$993.1	17.1 %
• Developed	27.4	186.3	14.8
• East Europe	4.0	103.0	3.9
• Developing	138.3	692.6	20.0
• • Latin America	15.4	243.6	6.3
• • Middle East	2.8	48.7	5.8
• • Africa	1.5	33.2	4.5
• • Asia	118.6	357.1	32.3
• • • ASEAN (excluding Singapore)	69.4	162.9	42.6
• • Unallocated	–	9.4	–
Offshore	US$219.7	US$663.9	33.1 %
• Hong Kong	87.5	207.2	42.2
• Singapore	58.8	189.3	31.1
• Other	73.4	267.4	27.5

Note The reporting area comprises the Group of Ten countries plus Austria, Denmark, Finland, Ireland, Luxembourg, Norway and Spain.
Source: Bank for International Settlements.

Japan is likely to remain the champion of international support efforts in the region.

Therefore, rather than using the monetary policy, the Japanese efforts to help Asia are likely to emphasize official lending. In the recent initiative to support Thailand, for example, the Japanese government contributed substantial sums though lending by public sector financial institutions. Moreover, the use of official lending has bureaucratic advantages. For one, it avoids the roles of "rich uncle" or "bad cop," either of which could complicate diplomatic relationships.[7] Second, it gives public sector financial institutions an answer to critics, who have recently called for sharp cutbacks in their activities.

Economic Indicators

Mon 8 Sep 8:50 AM	***Wholesale Prices (Aug)***		July (Actual)	August (Forecast)	
	Overall	Year to Year	1.8	2.1%	
		Month to Month	0.0	0.1	
	Domestic	Year to Year	2.0	1.9	
		Month to Month	0.2	-0.1	
8 Sep-9 Sep 8:50 AM	***Balance of Payments (Jul)***		July 1996 (Actual)	June 1997 (Actual)	July 1997 (Forecast)
	Current Account	NSA	¥556.9 Billion	–	¥1,000 Billion
		SA	–	¥976.0 Billion	¥910 Billion
	Portfolio Investment (-)=outflow	NSA	-¥203.3 Billion	-¥671.8 Billion	-¥500 Billion
Tue 9 Sep 2:00 PM	***Machinery Orders (Jul)***		June (Actual)	July (Forecast)	
	Private Exc. Ships and Electric Power	Month on Month	-10.8%	9%	
		Year on Year	5.6	3	
Tue	***MoF Corporate Statistics (2Q)***		1Q 97	2Q 97	

[6] For example, the Federal Reserve hiked the Federal Funds rate in January 1995, even though the Mexican peso crisis had already broken out.

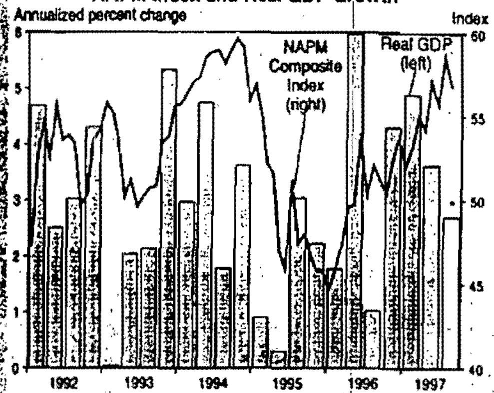
[7] Diplomatic issues concerning Asia are currently a source of irritation within the ruling coalition. For example, the Liberal Democratic Party, which leads the coalition, disagrees with the Democratic Socialist Party on the extent of Japanese commitments to give collateral defense support to the United States under bilateral agreements. Prime Minister Ryutaro Hashimoto is to visit China from September 4-7, and both security and economic issues in the region are likely to be on the

U.S. Economics Analyst

The Asian Drama: Minimal Impact on U.S. Growth

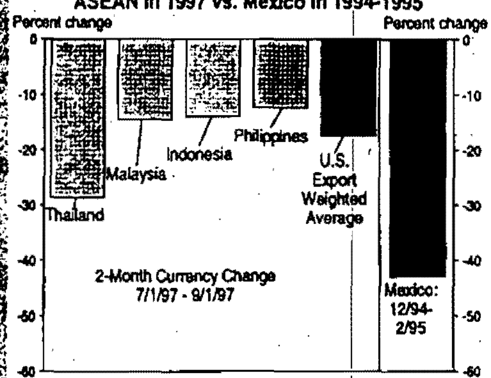
- U.S. economic growth remains on a solid path. Large sales gains posted by retailers, coupled with a small increase in unit sales of light-weight motor vehicles from already high levels, imply that spending rose sharply again in August. Meanwhile, factory indicators, ranging from purchasing managers surveys to orders data to payrolls, suggest firm gains in this sector.
- The August employment report likewise reveals no significant turn in the direction of the labor market. Excluding the effects of the UPS and other strikes, nonfarm payrolls rose 192,000 last month and revisions added another 43,000 to the job rolls. Wage inflation remained on a 3.6% year-to-year track.
- Worries that the Asian currency turmoil could put a significant dent in U.S. growth appear unwarranted, despite our expectation for a major slowing in the region. Using the experience following the 1994 Mexican peso devaluation as a guide, we estimate that U.S. GDP will be cut by no more than 0.1%.
- This small estimate reflects two factors: (1) the ASEAN nations, where currency depreciation has been concentrated, are not apt to suffer nearly as big an adjustment as Mexico did, and (2) these countries account for less than 5% of U.S. exports. The assessment would obviously change with significant contagion outside the region, but this currently appears unlikely.
- Although Federal Reserve officials are becoming more uneasy with the persistent trend in growth, according to one press report, we continue to believe that they will refrain from tightening at the September 30 meeting.

NAPM Index and Real GDP Growth



*GS forecast.
Source: Department of Commerce. NAPM.

Currency Depreciation:
ASEAN in 1997 vs. Mexico in 1994-1995



Source: Bank of America.

Trade Recommendations

- Close long March 1998/March 1999 Eurodollar calendar spread positions.
- Sell short December Treasury 10-year note futures on a close below 108.14, with a stop on a close above 109.16.

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II. The Asian Drama: Minimal Impact on U.S. Growth

In the last week or two, U.S. financial markets have focused a great deal of attention on the currency crisis in Asia and its potential impact on the U.S. economic outlook. There is no question that the currency and stock-market turmoil unleashed by the devaluation of the Thai baht on July 2 will hurt growth in the region; on the basis of these developments, our Hong Kong based economists foresee a recession in Thailand and slowdowns in several neighboring countries. As a result, U.S. firms with significant exposure in this region are apt to suffer a noticeable loss in business.

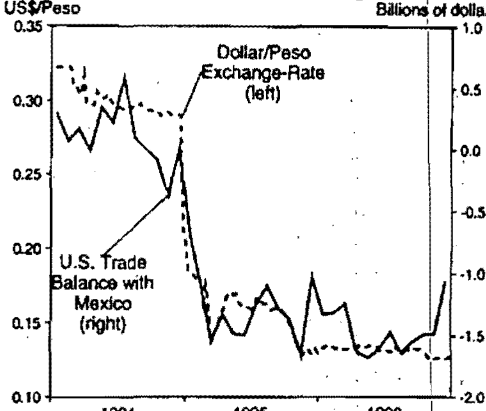
However, it is hard to make the case that the crisis will have a significant effect on the U.S. economy as a whole. Using the experience following the 1994-1995 devaluation of the Mexican peso as a framework for analysis, we estimate that growth in U.S. GDP is unlikely to be reduced by much more than 0.1%. Any materially larger impact would require a significant spreading of the crisis to other countries in the region and to other emerging market economies. While this obviously cannot be ruled out altogether, we currently see sustained weakness as unlikely. Meanwhile, in assessing prospects for U.S. trade, investors should bear in mind that more than two-fifths of U.S. merchandise exports are sold in Canada, Mexico, and Latin America, where the economies are generally strong at the moment.

The Mexican Peso Crisis as a Framework . . .

In attempting to quantify the probable effects of the Asian crisis on U.S. growth, the experience following the Mexico peso devaluation in late 1994 provides a convenient framework for analysis. On December 22 of that year the Mexican government devalued the peso sharply and unexpectedly in an effort to reverse a rapid widening in its current account deficit that had resulted from overly expansive economic policies. In the following year, Mexico's current account deficit fell sharply, from $29.7 billion (7.0% of Mexican GDP) in 1994 to $1.6 billion (0.5%) in 1995.

From the perspective of other nations, this shift in Mexico's current account deficit marked a contraction in annual demand for goods and services of about $27 billion. Because the United States accounts for an overwhelming share of Mexican trade—about two-thirds in 1994—it naturally shouldered the brunt of this adjustment. Thus, as shown in the accompanying chart, the U.S. merchandise trade balance with Mexico moved rapidly from a slight surplus of $1.4 billion in 1994 to deficits of $15.4 billion in 1995 and $17.5 billion in 1996—a cumulative loss of $18.9 billion, or about ¼% of U.S. GDP in that year.

The Peso Crisis : An Immediate Drag on U.S. Trade



Source: Department of Commerce. Bank of America.

One way to gauge the impact of the Asian crisis is to assume that a comparable current account adjustment occurs in the ASEAN countries—Thailand, Malaysia, Indonesia, and the Philippines—whose currencies have been hit hardest in the current crisis. At present, these nations are running current account deficits averaging 4½% of their GDP, or about $27 billion. Elimination of these deficits would thus represent a reduction of $27 billion in the demand for goods and services to be absorbed by the rest of the world.

By happenstance, this is an amount almost identical to Mexico's current account adjustment in 1995, albeit in a world economy that has grown in the interim. However, its impact around the globe would be distributed quite differently. Whereas the United States accounted for two-thirds of Mexican trade in 1994, it accounted for only 21% of ASEAN exports and 12% of ASEAN imports in 1996.[1] Thus, the U.S. share of such an adjustment would not be much more than $3-$5 billion. Although the secondary effects rippling through other countries onto the U.S. trade balance would boost this figure somewhat, it seems unlikely that the ultimate effect would be more than

[1] These figures are based on data compiled by our Hong Kong based colleagues and presented in the September 2 issue of *The Weekly Analyst* (p. 7). They have been weighted according to OECD data on GDP.

twice as much, or about 0.1% of U.S. GDP (which crossed the $8 trillion annual rate mark last quarter).

. . . But ASEAN in 1997 Is Not Mexico in 1994

In fact, we believe it is more likely that the foregoing exercise represents an upper limit to the impact of the Asian currency crisis on U.S. output, inasmuch as the difficulties in Asia seem much more manageable than those that confronted the Mexican authorities 2½ years ago. The 1994 peso devaluation threw the Mexican economy into a free fall in 1995, as real domestic final sales plunged nearly 14% following a 5.5% increase in 1994. By contrast, our economists in Hong Kong envision a downturn of much more modest dimensions in Thailand, where the problems are most severe, and a slowing in growth elsewhere in the region. Their latest forecasts are shown in the table below, both for the ASEAN countries and for the newly industrialized economies (NIEs) of Hong Kong, Singapore, Taiwan, and South Korea.[2]

Moreover, even Mexico's devaluation did not quite wipe out its current account deficit. This gap, which reflects (in opposite sign) the annual flow of capital into the country, averaged about ½% of GDP in 1995 and 1996. In 1997, it has begun to move back up, headed to an estimated 1.7% of GDP, as investors have regained confidence. In our view, the result will be a similar pattern, probably with a more muted deficit decline, for the ASEAN region.

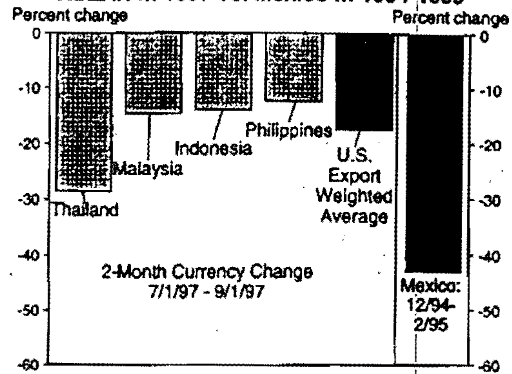
Domestic Demand in Asia (%)

	1995	1996	1997E	1998E
ASEAN				
Thailand	8.6	7.3	-1.3	-0.1
Malaysia	13.3	7.1	4.6	0.7
Indonesia	10.2	8.3	4.5	3.7
Philippines	3.7	7.0	6.3	3.7
Average	**9.2**	**7.6**	**3.3**	**2.2**
NIE				
Singapore	8.5	10.6	8.9	5.2
Taiwan	4.5	4.8	7.7	5.4
Korea	8.3	7.9	1.7	1.0
Hong Kong	6.9	3.0	7.5	7.4
Average	**6.9**	**6.3**	**5.0**	**3.7**

Source: Goldman Sachs

[2] Readers interested in more details should see the July 24, 1997, report by Don Hanna entitled *ASEAN-4 Currencies Adrift on Choppy Waters*, and subsequent issues of the *Asia Economics Analyst*, especially the one dated September 1, 1997.

Currency Depreciation: ASEAN in 1997 vs. Mexico in 1994-1995



Source: Bank of America.

It may sound strange, given the turmoil now swirling in the Asian currency markets, but this also seems to be the conclusion that participants in these markets have reached, at least so far. Although the ASEAN currencies have dropped sharply in a short period of time, these declines have actually been much less steep than the Mexican peso's decline during the comparable period of that crisis, as shown in the chart above. If the onset of the Asian crisis is marked by the devaluation of the Thai baht on July 2, then it has just passed the two-month mark. By the same time in late February 1995, the peso stood 43% lower against the dollar, headed to a cumulative decline of 55%. Only the Thai baht has depreciated by even half this amount (about 29% as of September 1). Weighted by U.S. exports, which are apt to bear the brunt of the U.S. trade adjustment if the Mexican experience is any guide, the ASEAN depreciation has been about 17½%, or only about two-fifths as steep as the 2-month peso depreciation.[3]

Coupled with the fact that the ASEAN nations make up a much smaller percentage of U.S. exports than did Mexico before its devaluation, the fact that the ASEAN depreciations have been smaller, at least so far, supports the conclusion that the U.S. impact will also be small. In the 12 months ending in June 1997, U.S. exports to ASEAN totaled $27.9 billion, about

[3] Judging from the fact that imports from Mexico did not deviate markedly from their previous trend, almost all of the U.S. adjustment in that situation appears to have occurred on the export side of the ledger. With the ASEAN exchange rates moving much less sharply, this experience suggests that any effort to dump goods in the United States will not meet with much success.

4.3% of the total value of U.S. merchandise exports over the same period and only 0.35% of U.S. GDP. By contrast, in the 12 months prior to its devaluation, Mexico accounted for 9.9% ($50.8 billion) of U.S. merchandise exports, a figure then worth about 0.73% of U.S. GDP. Thus, from the point of view of export shares and their percentage of total U.S. output, the U.S. exposure in the current situation is slightly less than half what it was in the 1994-1995 Mexican episode. Together with a depreciation only two-fifths as steep, this implies that the U.S. trade adjustment, if confined to exports, would be only one-fifth as large as it was in 1995—again well under 0.1% of U.S. GDP before secondary effects are considered.

Calculations based on U.S. import shares yield only slightly larger effects. The ASEAN countries account for 5.7% of U.S. merchandise imports, versus 7.5% for Mexico prior to its devaluation, or about three quarters as much. Thus, the effect on this basis would be about 30% of the Mexico impact, a figure still comfortably below 0.1% of GDP.

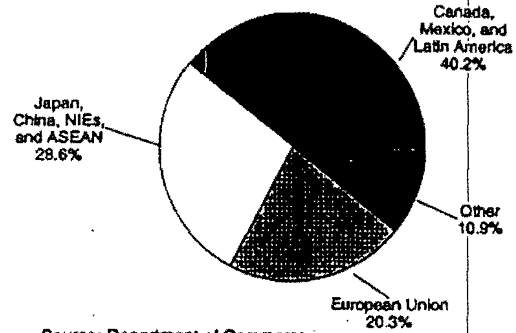
A Significant Impact Depends on Contagion

The message from these various calculations is simple: So far, the steepest currency declines have occurred in countries that, while growing rapidly, are still quite small, both in absolute output and in terms of U.S. trade. Thus, the effects of their adjustments, while painful locally, are too small in the aggregate and too spread out around the world to have a significant impact on U.S. growth.

This assessment would clearly change if the currency crisis were to prove contagious to other nations in the region or elsewhere. In that event, the aggregate hit to domestic demand in the rising number of affected countries would grow, while the ranks of those left to absorb this shock would dwindle. In this regard, the most obvious risk is that currency weakness spreads to the NIE bloc. From a U.S. perspective, contagion to the NIEs would begin to have noticeable effects, as these nations buy almost 12% of U.S. exports, about three times as much as the ASEAN nations.

However, contagion to this region has thus far been limited. The Singapore dollar and the Korean won have depreciated, but by relatively small amounts, and the Hong Kong stock market has suffered a significant setback, albeit after a major upward move. Only in the case of Korea do our Hong Kong-based economists expect material weakness in growth. Indeed, their view is that contagion within ASEAN has probably been overdone; beyond Thailand, only

U.S. Export Shares
(12 months ending June 1997)



Source: Department of Commerce.

Malaysia is likely to experience a pronounced growth hiatus.[4]

The most common questions raised about the indirect effects on U.S. growth revolve around the impacts on Japan and China. These nations are to the ASEAN crisis what the United States was to the Mexican peso crisis, and it is likely that Japan in particular will suffer growth effects materially larger than those we have estimated for the United States. But here too a measurable U.S. effect depends on contagion outside ASEAN. Although Japan and China send huge percentages of their exports to Asia (44% and 36%, respectively), most of these goods go to the NIE bloc (25% and 31%).

Don't Forget the New World

One final point: In assessing overall prospects for U.S. trade, investors should be wary of focusing too much attention on one region of the world at the expense of others. Although U.S. trade to the Pacific Rim has grown rapidly in recent years, this is not yet the most significant region. That honor belongs to the Western Hemisphere (more accurately, Canada, Mexico, and Latin America), which takes 40% of U.S. exports. Growth in these economies has been robust and is likely to remain so. As a result, the 20%-plus trend in exports to this region should provide a significant offset to any trade weakness that does emerge from the Asian currency drama that is now unfolding.

Ed McKelvey

[4] For details, see the September 1, 1997, issue of the *Asia Economics Analyst*.

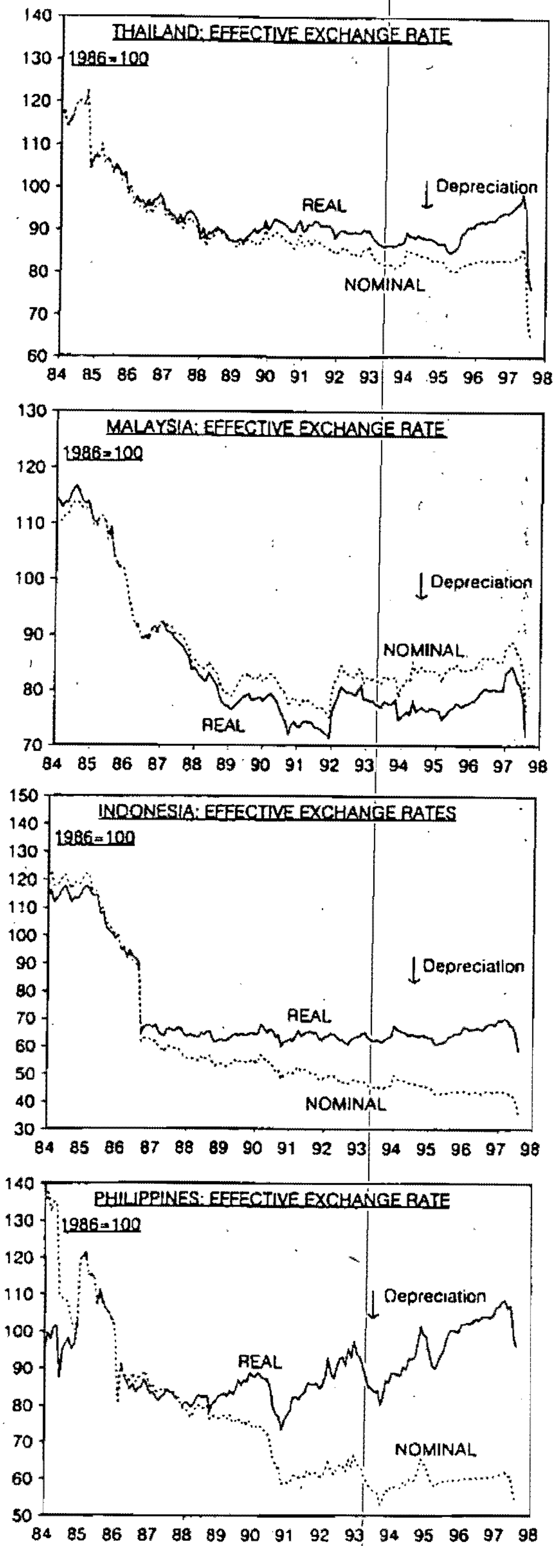
reduced risk in the portfolio by cutting their weightings on Latin American and Asian equities, while restoring the UK to level weight.

THE ASIAN CRISIS

In the past few months, an economic and currency crisis has spread across the Asean-4 countries of Southeast Asia (i.e. Thailand, Malaysia, Philippines and Indonesia). The onset of this crisis was triggered by the slowdown in export activity last year, and more recently by the increases in local interest rates which have been needed to protect the Asean currencies from sharp depreciation. There have recently been some tentative signs that this crisis is spreading northwards to the rest of Asia (notably to Korea and Hong Kong), and even to Brazil, but so far these contagion effects have been small.

For several years before the onset of the current Asean crisis, there had been massive capital account inflows into the region from the rest of the world, reflecting relatively easy global monetary conditions, and the apparently secure prospects of very rapid GDP growth across the region. In 1996, the capital account inflow from abroad amounted to 5% of GDP in Indonesia, 9% in Malaysia, 11% in the Philippines and 10% in Thailand. A large proportion, generally more than half, of these capital account inflows came in short-term categories (rather than in long term direct investment), increasing the vulnerability of the region to a subsequent sudden reversal of these flows. Furthermore, the availability of apparently easy finance allowed these countries to run large current account deficits - in 1996, the current account deficit in Indonesia was 3.6% of GDP, in the Philippines 4.2%, in Malaysia 4.9%, and in Thailand as much as 7.9%.

The allocation of these surging capital inflows became a severe problem, with booming asset prices, especially for real estate, becoming a common phenomenon. Faced with these difficulties, the central banks of the region were reluctant to slow domestic activity by raising interest rates, for fear of attracting still greater capital inflows. Furthermore, the fiscal authorities did not tighten enough to offset the expansionary effect of the capital flows. In 1996, it was becoming clear to equity investors that the situation in Thailand was getting very risky. Malaysia and the Philippines equity markets of the region

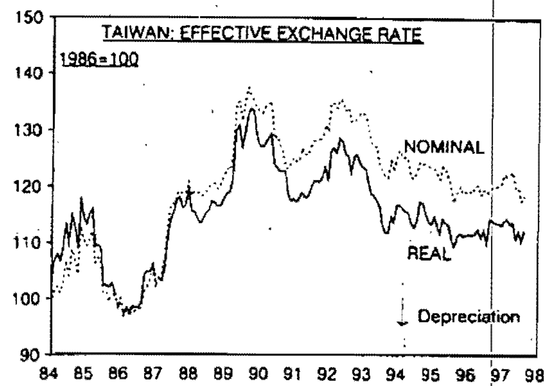


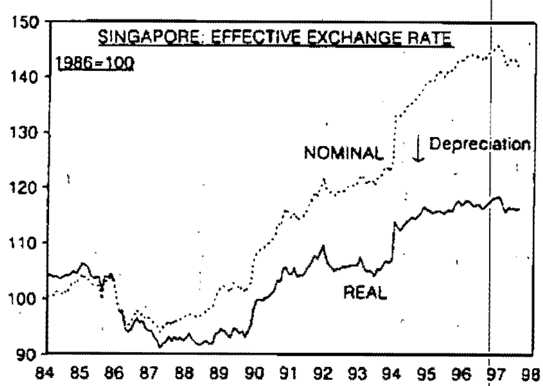
began to underperform the world market late in the first quarter of 1997, with underperformance becoming extreme this summer as Indonesia joined the group. Compared to the world index, the equity market in Indonesia has underperformed by 39% year-to-date, Malaysia by 46%, the Philippines by 47%, and Thailand by 50%.

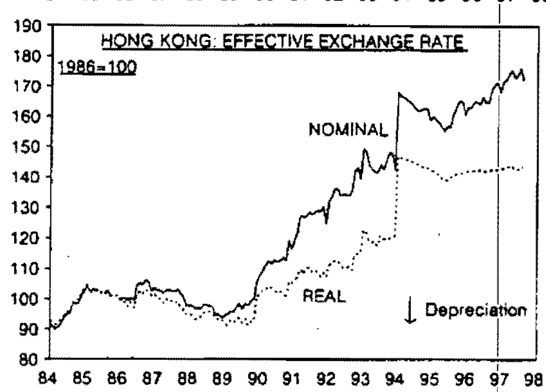
In retrospect, these collapses in equity prices served as a warning that the domestic imbalances in the Asean-4 had become quite severe, with dangerous build-ups of debt in some cases, and extreme exposures of local banking sectors to the risk of asset price collapses, made worse by currency depreciations which would increase the local currency value of foreign debt. Since the currency slide started in earnest two months ago, the depreciations against the dollar have been as follows - 23% for the Philippine Peso, 24% for the Indonesian Rupiah, 21% for the Malaysian Ringgit, and a phenomenal 46% for the Thai Baht. (Over the past year, the weighted average depreciation for the Asean-4 currencies taken together has been 31% against the dollar, 12% against the DM, and 18% against the yen.) Since the external debt burden of these economies is high - 48% of GDP for Indonesia and the Philippines, 43% for Thailand and 39% for Malaysia - these huge devaluations obviously increased the financial vulnerability of the domestic private sectors, bank and non-bank alike.

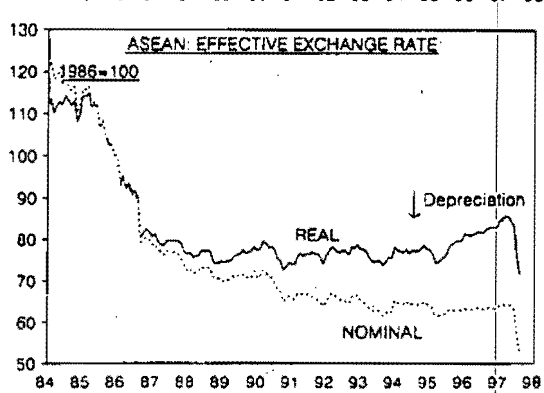
APPROPRIATE POLICY RESPONSES

The appropriate policy response to this situation would seem relatively clear-cut, though that is not to say that the politics of implementing the necessary changes, and then sticking to them, is proving at all easy. The necessary policy changes are several-fold. First, confidence must be restored to the currency markets, since in the absence of this there will be a further build-up of debt ratios, either through the impact of depreciating currencies on external debt, or through the impact of higher domestic interest rates on internal debt. Since the local currencies are no longer at all overvalued against the dollar or other developed currencies, the task of restoring confidence is not impossible, but it does need decisive and resilient policy action. Second, action is needed to narrow current account imbalances, and this will almost certainly involve some fiscal retrenchment, particularly reductions in current









public expenditure as a share of GDP. This has proved difficult in the past in several of the Asean-4 economies, and it may be even more difficult in the future, given the slowdown in growth which is now likely to occur. On this front we are encouraged by the efforts at fiscal belt-tightening agreed to with the IMF in Thailand and the Philippines and by the independent decisions to increase central government surpluses announced last week in Malaysia and Indonesia. Third, a combination of measures is still needed to restore confidence and health to the financial sectors; only a small subset of the necessary action has so far been implemented.

As Sun Bae Kim has pointed out in a recent article on Thailand, the required measures have three features - (i) damage control, involving action to secure the confidence of depositors, and to make transparent the difference between solvent and insolvent institutions; (ii) loss allocation, involving measures to recapitalise the banking system; and (iii) rebuilding profitability, involving measures to reduce short term interest rates, and increase spreads in the financial system. If the experience of financial restructuring in other countries serves as any guide, a significant portion of the loss allocation will probably take the form of a larger fiscal deficit, which increases the need for budgetary retrenchment in other areas..

Finally, there may be a need to access a further tranche of external official capital, either from the IMF once again or from some sub-group of developed economies, mainly involving Japan. Although there is plenty of potential for renewing large scale private sector capital inflows, once the market has confidence that the necessary economic reforms have been taken, the case of Thailand shows that the initial involvement of the IMF is not a sufficient condition for the restoration of confidence. The ultimate determinant of whether confidence is restored is the consistency and resilience of the country's own policies.

Of course, while we have tended to treat the region so far as if it is a single block, there are very important differences between the four countries concerned. By far the most severe problems of overstretched asset prices and a weakened banking sector apply to Thailand, where we estimate that losses in the banking system will amount to at least 14% of GDP ($30 billion), and quite possibly a great deal more. Malaysia is clearly the country with the most parallels to Thailand, including a high degree of leverage, and an exposed banking sector. Malaysia has so far chosen to allow most of the problem to show up in lower exchange rates, rather than higher interest rates. This seems appropriate in view of the relatively low burden of private external debt in that country; but any advantage from this course of action has been more than offset by a series of dubious attempts to interfere with the functioning of markets in Malaysia, and these attempts are likely to make the restoration of foreign confidence much more difficult than it need have been. In the Philippines and Indonesia, parallels with Thailand are less clear cut, since these two countries have less exposed or better capitalised banking sectors, and a more comfortable current account position. Nevertheless, given the implosion of confidence which has now hit the region, it will be difficult for these countries to finance existing current account imbalances without recourse to interest rate levels which could damage their domestic banking systems.

ECONOMIC AND ASSET MARKET IMPACTS

We are obviously getting a lot of questions from clients about the possible economic and asset market effects of these developments. In brief, here are our answers to the most commonly-asked questions on this topic:

1. Is this the end of the Asian growth miracle?

Our answer to this is basically "no". We have recently conducted a major econometric exercise to explain and then predict long-term trend growth rates in emerging markets and developed economies. This exercise, which will be reported in full in a special article shortly, forecasts long-term growth rates of 6.4% in Thailand, 6.6% in Indonesia, 6.3% in Malaysia, and 5.3% in the Philippines. The underlying growth performance of the Asean-4 will remain, on our models, the most impressive of any geographical block in the world (with the possible exception of China), and although growth rates in the Asian countries are likely to be slightly down on the exceptional rates of the past decade, this is mainly for the simple reason that, as these economies catch up with the technological standards of the developed world, there is less scope for a further rapid catch up in the future.

We do not share the Paul Krugman thesis that there is "nothing miraculous about Asian growth". It is true, as Krugman argues, that a large part of Asian growth can be explained by the shift of workers from agriculture into manufacturing, and still more can be explained by high rates of growth in investment. Nevertheless, the performance of total factor productivity - output per unit of labour and capital combined - seems to have been much better than Krugman has allowed for, and it should also be remembered that there is still considerable scope for further rapid growth via a combination of high investment and the shift away from agriculture. We expect these favourable factors to dominate the performance of the region over the next decade, leading to a further 10 years of cumulative real GDP growth at 6% per annum or more.

2. How long and deep will the current recession prove to be?

This is the $64,000 question for asset markets, and it is very difficult to answer with any certainty. Our regional specialists in Asia, led by Don Hanna and Sun Bae Kim, initially tended towards the view that the impact of the financial crisis on GDP growth in the region would be relatively modest. This view of the region was predicated on the belief that the prime reasons for the exports slowdown in the past few quarters have all been temporary - notably, the slowing in OECD domestic demand last year, the collapse in the semi-conductor industry worldwide, and the depreciation in the yen which boosted Japanese exports relative to the rest of Asia. With each of these factors beginning to improve, we have already seen some rebound in the year-on-year growth in export volume for the Asian countries. This bottomed at around zero (year-over-year) in 1996Q4, but the latest figures show growth rebounding to around 5% in volume terms as we entered the second quarter of the current year. Admittedly, however, there has not yet been any rebound in export prices, which were crushed by the combination of currency effects and sluggish domestic demand last year. Business conditions in the region are unlikely to feel much better until there is scope for a rebound in export prices, which we feel should happen soon.

However, in order for us to be justified in making relatively optimistic growth projections, macro-economic policy needed to respond appropriately to the current crisis of confidence afflicting the region. Without the appropriate policy response, there was a rising risk that a collapse in domestic confidence, triggered by weak asset prices and bankruptcies in the financial sector, would more than offset the boost from depreciating currencies, leaving the region in a much deeper recession than anyone had previously contemplated. This would become much more likely if central banks continue to attempt to protect currencies by high domestic interest rates. Greater emphasis is needed on taking transparent steps towards restructuring the financial systems and ensuring that adequate fiscal retrenchment occurs.

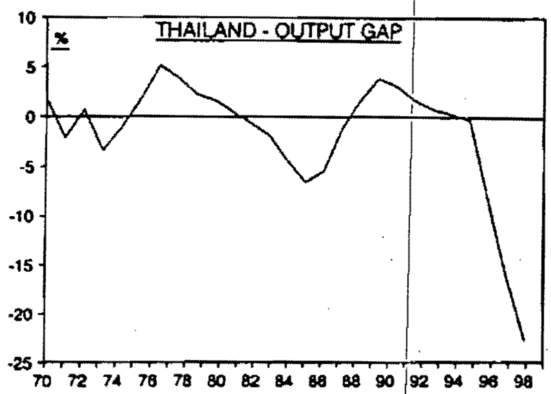
On balance, we feel that the necessary policy steps will eventually be forthcoming to avoid an outright calamity - after all, the example of Mexico in 1994/95 offers a good case study on what should be done, while the less happy Scandinavian experience in 1993-94, and of course the Japanese banking problems of the 1990s, point to the perils associated with a slower policy response. Unfortunately, however, the policy response in the region since the crisis blew up this summer has not been particularly re-assuring, involving a sluggish recognition of the severity of the underlying problem and, in some cases, a tendency to adopt measures which will make it much harder to restore international confidence in the medium term. This has led to a much larger decline in exchange rates than was initially forecast, and to a larger systemic collapse in market confidence. This will definitely make it more difficult to attract the necessary financial inflows to finance the current account deficit next year, and this will lead to a combination of higher interest rates, lower exchange rates and/or tighter fiscal policies to curtail the trade imbalances. There is also a severe risk that the weakness of the banking systems in the region will now lead to a major drag from the financial system as banks lose the ability to play their normal intermediation role in the economy. There are already signs that a classic credit crunch of this sort may be happening.

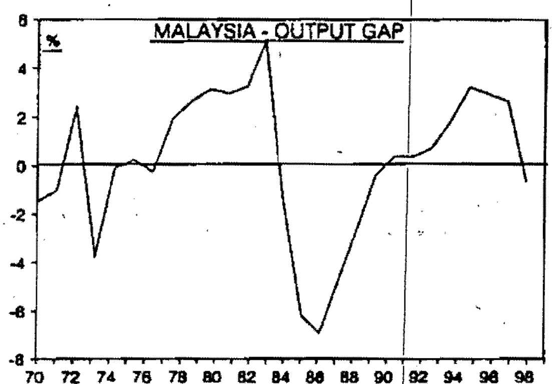
This problematic combination is likely to lead to a weaker profile for Asean growth next year than we had previously expected, and as a result we have downgraded our growth forecasts for the rest of 1997 and 1998. We are now looking for GDP growth in the Asean-4 countries of 4.9% in 1997 and 4.5% in 1998, figures which are 2-3% per annum below trend. The current account deficit for this group of countries is likely to narrow from 5.2% in 1996 to 4.0% in 1997 and to only 2.7% next year. In terms of individual economies, we have made the largest downgrades to growth projections in Thailand (0.5% in 1997 and 2.0% in 1998), followed by Malaysia (7.2% in 1997 and 4.0%). Downgrades to our growth forecasts for the Philippines and Indonesia have been much smaller.

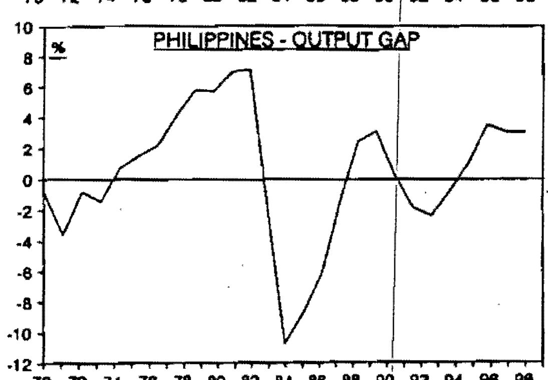
By Asean standards, the overall growth rate of 4.5% we are predicting for next year is very subdued, but we would expect to see some recovery before the year end, with a much better year to follow in 1999. Furthermore, we have made very little amendment to our GDP forecasts for the rest of Asia, including China, India and the northern Asian NIEs. Consequently, our overall forecasts for non Japan Asian GDP next year remain robust at 7.1% for the emerging economies (ie Asean, China and India) and 5.5% for the newly industrialised economies. A partial and localised recession in Southeast Asia is therefore all we are expecting at the moment.

3. Will there be a huge output gap in Asia next year?

Fears have been expressed that the slow-down in activity in Asia will lead to a significant problem of over-capacity in many industries next year, and that this will lead to sharp downward pressure on commodity and industrial prices as the Asian economies attempt to clear excess inventories. We have attempted to answer this question by conducting an exercise designed to measure Asian output gaps. To do this, we have estimated trend GDP in each of the major economies (using Hodrick Prescott filters), and have subtracted actual GDP from trend to attain a rough measure of the output gaps. (The IMF has recently completed a similar exercise, which it says has been useful in analysing inflation pressures in Asia.) We, of course, recognise all of the well-known pitfalls in this type of exercise, and we would







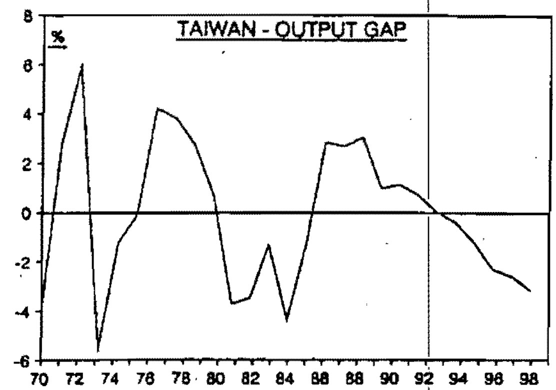
describe the following results as tentative. Nevertheless, they suggest that a significant output gap may develop in parts of Asia next year. For the Asean-4 countries, the gap is around 5% of GDP, while for the rest of Asia (excluding India, China and of course Japan), the gap is around 4%. The countries with the largest output gaps in 1998 are likely to be Thailand, Korea and Taiwan.

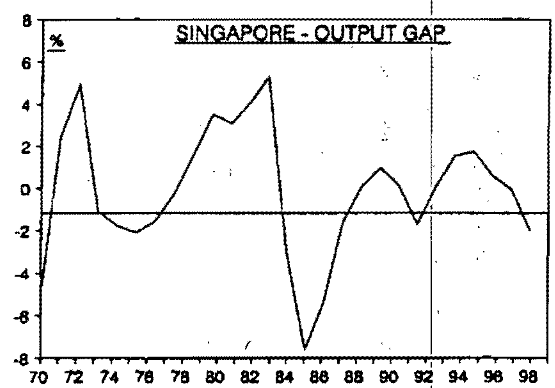
China is not included in this analysis, since it is difficult to assess the meaning of an output gap in a non-market economy. However, on our growth forecasts for China, GDP will continue to grow at around the trend rate throughout the forecast period, and our Asian economists have recently argued that the likelihood of significant "dumping" of excess Chinese manufactured products into the world export market is rather limited. For what it is worth, our rough attempt to include China in the Asian output gap analysis suggests that the pan-Asian gap falls to about 2% next year if China is included.

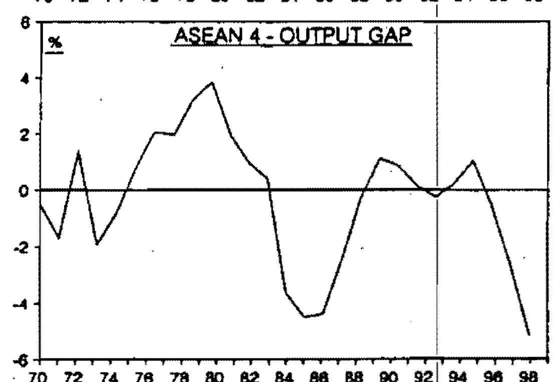
4. What will be the impact of the Asian setback on the rest of the world?

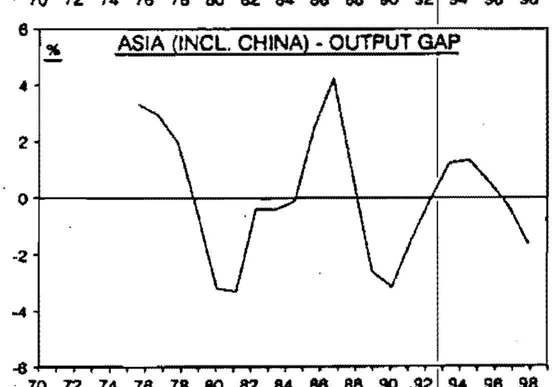
Obviously, on our existing forecasts for Asean and Asian GDP, the impact on world growth is quite small, since we are not yet predicting any sharp recession in Asia as a whole. However, it is worth pointing out what might be the effect of a much larger Asian recession on the developed economies. Japan is the most vulnerable major nation to an Asian recession - 12% of Japanese exports go to the Asean-4, and 37% to the whole of Asia. The US is much less vulnerable, with equivalent figures of 4% and 15% respectively. The EU at first sight appears least vulnerable, with equivalent figures of only 2% and 6% respectively. However, since foreign trade accounts for a much bigger share of GDP in the EU than in the US, it turns out that the GDP impacts of Asian trade on the EU and US are rather similar. In both cases, the GDP effect is much smaller than it is in Japan.

Of course the risks of a large further downward revision to growth forecasts is greatest in the Asean-4 countries and Korea. For the sake of illustration, let us assume that in the case of a deep recession in Asean, the growth of real domestic demand in the region might fall from about 5% (our main case









forecast prior to the crisis) to zero. In this case, the growth of imports into Asean might fall by around 10%. The direct impact of this shock on the rest of the world would be to reduce real GDP growth in Japan by 0.11%, while US GDP growth would fall by 0.04% and EU GDP also by 0.04%. These effects are obviously negligible. Of course, if the Asean recession spread to the whole of Asia, then the effects could be up to 3 times as large as those just mentioned, but even this would be very minor, except perhaps for Japan.

So far, we have taken account only of the loss of exports from the developed economies into Asia. Previous experience (eg the impact of the Mexican shock on the US in 1995) suggests that this is indeed the main route through which activity in the developed countries will be impacted by the shock, but there is also the possibility that the Asean/Asian countries will be able to increase their export sales into the OECD, and that OECD GDP will therefore be impacted by a rise in imports from Asia. How large could this extra effect prove to be? In order to assess the **maximum** likely size of the combined import and export effects on the OECD, we have assumed that **in an extreme shock** the Asean countries might be forced to reduce their current account deficits by 4% of GDP next year, while the rest of Asia is forced to cut its current account deficit by 2% of GDP. The total effect of this maximum shock is shown in the table. It would depress EU and US GDP by around 0.25% next year, while cutting Japanese GDP by around 0.65%. However, in our main case forecasts, the effects would be **much** smaller than this; in fact, they would be largely negligible.

What about the impact on global inflation? Once again, in our main case forecast, the downward revisions to Asian GDP growth are insufficient to make much difference to the world price level. But what if the Asian recession is deeper than we expect? In an extreme case, assume that Asean growth slows as a result of the shock by 4 percentage points next year, while the rest of Asia slows by 2 percentage points. This would increase the global output gap by 0.63% next year, which might cut global inflation by 0.3% in 1999. (There would probably be some offset to this from easier monetary policy in the developed economies.) In the short term, it is of course likely that there would be more significant price effects in some industries as excess inventories are eliminated, but this is unlikely to last more than about 6 months.

Effects of this scale would not be likely to have much effect on monetary policy, bonds or currencies in the developed economies. To the extent that any economy is affected, Japan and the yen are clearly impacted more than the US and the EU.

5. Will there be knock-on effects to other emerging markets?

The lesson of the Tequila Crisis following the collapse of the Mexican peso in 1994 is that risk premia around the world can rise as a result of a specific event in one country. There has obviously already been some contagion from events in Thailand to the rest of the Asean countries, where economic fundamentals do not appear to be so worrying. There have also been signs of contagion to other markets as far afield as the Czech Republic and Brazil, and to the emerging debt markets in general.

Although the trade links between the Asean economies and the Latin economies are negligible, there is a risk that a rise in perceived global risk premia will lead to a decline in capital inflows into the Latin group. However, it is worth pointing out that Latin American GDP growth is currently rising, not falling, and it is important to note that no Latin economy (including Brazil) shows the virulent expansion of credit seen in Thailand and Malaysia prior to the crisis. The view of our emerging markets economics team is that contagion effects will be quite limited, and indeed may provide good long-term buying opportunities in the assets affected. This is partly because the stance of global monetary policy, and the ready availability of liquidity, do not suggest that a large rise in risk premia on global financial assets is likely at present. Nevertheless, they recommend hedging EDM portfolios against possible Asian contagion risk by going short of Brazilian debt.

6. Is it time to buy Asian currencies?

Our answer is "probably not yet", and indeed in the past couple of weeks we have significantly reduced our 3-6 month forecasts for the baht, ringgit, rupiah, won, Singapore dollar and Philippines peso. On a long term view, we do not see the Asean currencies as fundamentally overvalued, and we think that the Indonesian rupiah, the Malaysian Ringgit and the Philippines Peso will all be considerably stronger than the market forward rate in a year's time. (By contrast, we think the Baht will be weaker than the forward.) However, on a shorter term view we feel that the worst may not yet be over, and would look for a new signal - eg more decisive policy changes in Thailand or Malaysia or more general signs of export strength - before thinking about opening long positions.

7. Is it time to buy Asian equities? We have similar doubts about the precise timing of a re-entry into the equity markets of the region, but on the whole we take recent events on the currency markets as being likely to enhance long-term equity returns. Nevertheless, our global equity strategists considered the case for Asian markets in detail in the "World Investment Strategy Highlights" publication for September and concluded that the high volatility and risk associated with Asean markets at the moment did not justify any significant representation in these markets (except perhaps in Indonesia). Those who wish to play the long term Asian recovery story should overweight Singapore, Hong Kong and (especially) India.

Gavyn Davies
Chief International Economist
10 September 1997

This section, as usual, draws upon the work of the entire Goldman Sachs' Research Group.

The following are rather extreme examples of MAXIMUM likely effects. They are much bigger than the figures built into our main forecasts.

1. Export Decline to Asean Countries

In an extreme case, growth in domestic demand in Asean countries could drop to zero next year compared to a pre-crisis forecast of 5%. This would cut export sales to Asean by 10%. A 10% drop in export sales to Asean would have the following effects on OECD GDP:-

	GDP Impact
US	-0.04%
EU	-0.04%
Japan	-0.11%

2. Export Decline to Other Asia

For comparison, a 10% decline in export sale to the rest of Asia (including China, but excluding ASEAN and Japan) would have the following effects:

	GDP Impact
US	-0.09%
EU	-0.12%
Japan	-0.22%

3. Import Substitution Effects

There are also likely to be gains in import sales from Asia to the rest of the world. Assume an extreme shock which improves the Asean current account by 4% of GDP next year, and the current account of the rest of Asia by 2% of GDP. This would have the following total effects (imports and export effects combined) on the GDP of developed economies:-

GDP Impact

(%)	Asean Effect	Other Asia Effect	Total Effect
US	-0.08	-0.16	-0.24
EU	-0.09	-0.17	-0.26
Japan	-0.26	-0.38	-0.64

4. Inflation Effects

Again, let us make some extreme assumptions. Assume ASEAN GDP growth slows from a pre-crisis forecast of 7% in 1998 to about 3% next year, and that the rest of Asia slows by 2 percentage points. This would increase the global output gap by 0.63%, which might cut global inflation by 0.3% in 1999.

TREASURY CLEARANCE SHEET

NO.__________

Date September 30, 1997

MEMORANDUM FOR: ☐ SECRETARY ☐ DEPUTY SECRETARY ☐ EXECUTIVE SECRETARY ☐ ACTION ☐ BRIEFING ☐ INFORMATION ☐ LEGISLATION ☐ PRESS RELEASE ☐ PUBLICATION ☐ REGULATION ☐ SPEECH ☐ TESTIMONY ☐ OTHER

FROM: Timothy Geithner, Assistant Secretary
THROUGH: David Lipton, Under Secretary
SUBJECT: Impact of financial turmoil in southeast Asia on the United States and Japan

REVIEW OFFICES (Check when office clears)

☐ Under Secretary for Finance
☐ Domestic Finance
☐ Economic Policy
☐ Fiscal
☐ FMS
☐ Public Debt
☐ Under Secretary (International)
☐ International Affairs
☐ Enforcement
☐ ATF
☐ Customs
☐ FLETC
☐ Secret Service
☐ General Counsel
☐ Inspector General
☐ IRS
☐ Legislative Affairs
☐ Management
☐ OCC
☐ Policy Management
☐ Scheduling
☐ Public Affairs/Liaison
☐ Tax Policy
☐ Treasurer
☐ E & P
☐ Mint
☐ Savings Bonds
☐ Other __________

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SPECIAL INSTRUCTIONS

☐ Review Officer Date ☐ Executive Secretary Date

DO F 80-02.1 (04/89)

1997-SE-011554

DEPARTMENT OF THE TREASURY
WASHINGTON, D.C.

SECRETARY OF THE TREASURY

October 23, 1997

MEMORANDUM FOR THE PRESIDENT

THROUGH: Robert E. Rubin RER

FROM: Lawrence Summers LS

SUBJECT: Update on Asia

Hong Kong has come under acute pressure this week, as the financial crisis in Southeast Asia has spread north to affect it, Taiwan, and Korea more directly.

- The Hong Kong Monetary Authority was forced to raise interest rates to extraordinarily high levels to defend the value of the Hong Kong dollar, while the equity market is down almost 25 percent thus far this week.

- The exchange rates of Thailand, Indonesia, Malaysia and the Philippines have now fallen between 25 and 35 percent against the dollar since the beginning of the crisis, with more modest reductions of between four and ten percent in the currencies of Singapore, Taiwan, and Korea.

There is now greater risk that the crisis in Asia could prove to be longer and more pronounced, and that it could spread to other emerging market countries outside the region.

The sources of these pressures lie in a combination of factors which vary in nature and degree across Asia. The vulnerabilities common to many, but not all, of the countries affected include, asset prices that had risen to rather high valuations, substantial current account deficits, very high levels of short-term external debt, weak financial systems with high levels of bad assets, lack of transparency, concerns about the stability and commitment of governments in some countries to necessary macroeconomic adjustment and reform, and the loss of some competitiveness experience as a result of the combination of a previous depreciation of the Chinese currency and the dollar's more modest appreciation.

Part of the dynamic at work is a kind of cycle of competitive depreciation, which if not arrested could have more damaging consequences for Japan, the United State, and the world economy as a whole.

The United States has major strategic and economic interests in seeing these countries succeed in reestablishing confidence and stability, and in building arrangements, in the region and globally, that could help reduce the risk of future crises of this magnitude.

Together with the Federal Reserve, we have been in close contact with financial officials in the region. We are working closely with the IMF. And together with your foreign policy team, we are in the process of exploring what direct financial role, if any, the United States could play in aiding the restoration of financial stability in the region. We are also in the process of developing a set of measures that the APEC leaders could endorse at the upcoming Summit in Vancouver, where these issues will be prominent.

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*** ACTIVITY REPORT ***
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DATE: 10-23-97

DEPARTMENT OF THE TREASURY
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–If received INCOMPLETE call (202)622-1825

TO: Secretary Rubin

Fax Number: __________

Office Phone #: __________

FROM: Larry Summers

Fax Number: (202)622-1829 (UNSECURE) (202)622-1851 (SECURE)

Office Phone #: __________

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PAGE 1 OF 3 PAGES

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1997-SE-012022

November 7, 1997

MEMORANDUM FOR SECRETARY RUBIN
CHAIRMAN GREENSPAN
DEPUTY SECRETARY SUMMERS

FROM: Timothy Geithner and Ted Truman

SUBJECT: Report on Our Meetings in Asia

We spent the last several days traveling to Hong Kong, Singapore, Jakarta, Kuala Lumpur, and Bangkok, where we discussed the financial outlook for the region, outlined the terms of the U.S. facility for Indonesia, tried to shape a consensus in favor of our approach to a cooperative financial arrangement for the region, and generally tried to show the flag.

We met with the Finance Minister and/or the Central Bank Governor in each city, and consulted with other countries in the region by phone along the way. Here's a summary of our joint impressions from these meetings, with some thoughts on the implications for U.S. policy. We arrive back in Washington on Friday evening.

As we left the region. . .

- Thailand looked very dark. Indonesia had made a good start on a program that exceeded the market's initial expectations. Confidence in Hong Kong had come back quite far. Korea was looking very tenuous. And in Japan there seemed to be emerging a greater sense of reality about the weakness in the economy and a recognition that the current policy course was unsustainable.

- The U.S. role in Indonesia was receiving very favorable reviews. Yet we are still generally regarded as being somewhat removed, late to appreciate the magnitude of the problem in the region, and still reluctant to act with the leadership and financial force necessary to make a difference, all of which is contributing to a sense that we are presiding over a significant shift in the strategic balance in the region, with the weaker countries being forced more into the arms of Japan and perhaps China.

- All this concern may prove to be overdone, and we may actually just be in the midst of a necessary and desirable deflation of the Asian emerging market bubble, with the real damage containable to Thailand, and a relatively modest deceleration in growth in the rest of the region.

- At this point, however, it seems prudent to worry more about the risk that this is going to get a lot worse in a lot more places before it gets better, than to be comforted by the hope that the landing will be relatively gentle.

- Thailand is very dark.

  - There is now some talk of a general moratorium by banks and corporations on their external obligations, with the Finance Minister alluding to the need for a "second line of defense" from the international community a la Indonesia to improve the prospects for avoiding that outcome.

  - The economy has slowed very sharply, with growth now negative, the external deficit close to being eliminated, and widespread evidence that the economy has seized up due to what is described as a lack of liquidity, but might be better described as a lack of confidence.

  - There is, I think, reason to doubt now whether the IMF program and it's strategy for the financial system is viable, even in the quite unlikely event that a new government emerges quickly out of the present turmoil to execute it.

  - We need to focus quickly on whether to stay the course for another six weeks, hoping the government will get its act together, that the IMF will be able to disburse on schedule, and that the situation will slowly start to stabilize, or whether to shift course and urge the IMF to rethink the basic framework of the program, particularly in the financial sector, where a more interventionist approach may be necessary. And, yet, it is hard to believe that the Thais will have a government any time soon capable of delivering on a new strategy.

  - My guess is that we are likely quickly to face pressure to join with Japan and others to put a sizeable stack of additional money on the table, along the lines of the Indonesian arrangement. It is hard to conceive at this point that this would make sense, not least because of the prospect of protracted political drift. The other potential creditors are likely to be reluctant, but probably not as reluctant as we.

- In Indonesia, in contrast, the program looks at this point more likely to work, and sentiment seems to have begun to turn around.

  - The Government has acted swiftly, with a fair amount of courage and force. In contrast to Thailand, there is a strong State with a very strong, competent, and highly regarded economic team that appears to have the full support of the President. Also in contrast to Thailand, the program was largely generated and shaped by a willing group of Indonesian technocrats, rather than designed and imposed by the IMF on a weak Thai government deep in denial.

- The public perception of the economic program has been shaped more by the compelling symbol of the closure of banks owned by the first family and their associates, than by the structural problems left unaddressed by the program. Whether this will persist or not is difficult to say: it depends in large part on whether the dissidents in the first family gain access to the corrupt judicial processes.

- The main risks, we suspect, are the following:

  - President Suharto may be tempted to walk back on some of the commitments in the program, either because he didn't quite realize what he had agreed to, or because once the pressure appears to ease he may feel he can afford it.

  - Indonesia may continue to get buffeted by contagion from the North (Thailand, Malaysia and Korea), undermining the ability to put a firmer floor under the rupiah.

  - Succession concerns are likely to come back into focus and could be quite damaging to long-term confidence, particularly if the President shows any inclination of withdrawing support for his economic team.

  - The government may feel tempted to try to ease monetary conditions too quickly. It's clear from our discussions that the Governor is uneasy with the monetary policy framework in the Fund program, and that the Minister may not be fully aware of the constraints the Governor is now under.

- The Finance Minister sounded quite comfortable with the terms of our support. I left him the term sheet with the reserve floor and ceiling and a few other numbers bracketed. He agreed to get back to us reasonably quickly with a view on how to he would like to proceed.

  - He seemed quite comfortable with the fact that the terms of our commitment would differ in significant respects from Singapore's and, perhaps, Japan's. He thought it was important for there to be general consistency in approach, but not uniformity.

  - He has no intention of having to resort to the second line of defense, but if he were to request the use of those resources, would plan to draw on each of us on pari passu terms.

- We obtained a less-clear picture about Malaysia, but we suspect they will come through this without having to resort to official external finance. and without much trauma.

  - Their strategy so far has been to let the exchange rate drift down moderately, to keep interest rates relatively low, and try to slow credit growth and the economy gradually through a combination of gentle fiscal consolidation and prudential measures to slow lending growth.

  - This strategy, combined with the general cloud created by Mahathir's rhetoric, has left the markets confused, caught between concern that the authorities are not really serious enough, but thinking that they might actually be strong enough not to be forced to do more in terms of adjustment.

  - However, we detected a certain amount of denial that Malaysia could face serious problems as a consequence of its relatively low real interest rates and a remarkable smugness about the condition of their financial system.

- On the debate about a cooperative financial arrangement for the region , we offer the following attempt at a summary of what is still a very fluid and uncertain process.

  - All the major countries in the region now seem to favor establishing some type of financing mechanism, as a complement to the IMF, and as part of a regional forum for mutual surveillance and for cooperation on financial issues.

  - Most of the basic principles we have laid out, and which formed the basis of our opposition to the original Japanese proposal, are widely accepted.

    - IMF-centered.

    - Only in support of IMF programs of adjustment. No lending outside of or in advance of IMF programs.

    - Only to supplement IMF resources, not to substitute for what the IMF should be able to do directly.

    - No independent secretariat or institutional structure.

    - Much smaller scale, and perhaps no total number at all.

  - There is general support for including the United States, but not if our participation would come at the expense of a real financing mechanism that could potentially mobilize substantial resources.

- There is general support for the proposals we have laid out for increasing access to IMF resources and with somewhat less intensity support for exploring ways to involve the private sector more in sharing in the financial burden and for improving safeguards against future crises. But these are not regarded as a potential alternative to a regional financial facility, only as useful complements.

- The two contending options on the table now are an arrangement modeled on the NAB and a regional framework for mobilizing second-line-of-defense packages alongside future IMF programs on the Indonesian model.

    - To the extent we know anything now, we think Australia, Hong Kong, Singapore, and possibly China could live with or would prefer the Asian GAB/NAB option. Malaysia and Indonesia are open to it, but more reluctant to embrace it. Japan clearly opposes the NAB option for all the reasons we like it, but might be willing to endorse it with the knowledge we'll get blocked by the IMF or the rest of the G-7, or caught up in some protracted negotiation, freeing them up to pursue their own agenda in the region without us.

    - If some of the Europeans were to support the NAB option only on the condition they were included, that would probably kill it in Asia.

- At this point, we think, the NAB option may well not prevail, even if the IMF and the Europeans were to become more supportive. But it's not over yet and the Asians are not really quite sure what they want, so we should keep both alive going into the Manilla meetings.

• We may be able to get through Manila with a general agreement to establish a forum for cooperation and mutual surveillance and to explore modalities for a financial arrangement consistent with several broad principles.

- We face some risk, however, that a failure to lock in the progress we have achieved in moving the debate closer to something that is benign for the system and in which we could participate would leave us vulnerable.

- The Malaysians seem to be actively interested in pursuing some form of financial link between ASEAN and Japan that might then be broadened to include others.

- Japan may view this as the best way to have something emerge that is closer to their original design. By starting with ASEAN and building gradually out, they would have a much stronger hand against us.

- Our inclination, at this point, is to try in lock in what ever we can in Manila, even if it means giving up on the NAB approach for now. In a world of bad options, this is probably the best way of preventing something worse from emerging over time, of ensuring we are full participants in shaping the new regional architecture, of sending a signal of cooperation and commitment to the region at a time when that is important, and of reducing the risk of making the President look marginalized and behind the curve at the APEC leaders meeting in Vancouver.

cc: Lipton, Atkinson, Zelikow

1997-SE-013945

DEPARTMENT OF THE TREASURY
WASHINGTON, D.C.

INFORMATION

ASSISTANT SECRETARY

December 31, 1997

MEMORANDUM FOR SECRETARY RUBIN
DEPUTY SECRETARY SUMMERS

FROM: David W. Wilcox DW
Assistant Secretary for Economic Policy

SUBJECT: U.S. Financial Exposure to Southeast Asia

As we discussed on Monday, attached for your use this weekend is a brief piece on the estimated direct financial exposure of U.S. investors as a result of holdings of loans or securities originating in Southeast Asia. We hope to have more material on this topic in the near future.

As you anticipated, the direct exposure is small, overall, given the relatively small size of these economies compared to the United States. Of course, individual firms or households could be more heavily affected.

FINANCIAL EXPOSURE TO SOUTHEAST ASIA

The financial turmoil in Southeast Asia raises the question of the implications for U.S. financial institutions and other U.S investors. The direct effects, overall, appear likely to be small because loans and securities originating in the area are a small part of aggregate portfolios in this country. Of course, the effects for individual investors (households or firms) could be substantial, and indirect effects through investor confidence, trade and corporate earnings could be much larger, but are highly speculative at this point.

- **The exposure of U.S. commercial banks to Southeast Asia is two to three times that to Mexico at the end of 1994 but is, nevertheless, small relative to the overall size of our banking system:**

  -- Amounts owed to U.S. banks by borrowers in the core five Southeast Asian countries involved in the current crisis (Indonesia, Korea, Malaysia, Philippines and Thailand) are **1.5 percent of total bank assets.**

  -- Amounts owed to U.S. banks by borrowers in this area are **7.4 percent of total foreign assets of these banks.**

  -- Amounts owed to U.S. banks are **14 percent of their capital** (but a much larger 28 percent of the capital of the large money center banks) so even much larger losses than reasonably anticipated now -- though of concern to shareholders -- would not threaten depositors or the deposit insurance system.

- Holdings in the U.S. of stocks and bonds issued in these Southeast Asian countries are about 5 percent of the total U.S. international investment position in securities.

  -- **Compared to total holdings of stocks and bonds (domestic and foreign) in the United States, holdings of such securities issued in Southeast Asia are estimated to be only 0.4 percent.**

Office of Economic Policy
December 31, 1997

1998-SE-000548

INFORMATION

DEPARTMENT OF THE TREASURY
WASHINGTON, D.C

ASSISTANT SECRETARY

January 16, 1998

MEMORANDUM FOR SECRETARY RUBIN
DEPUTY SECRETARY SUMMERS

FROM: David W. Wilcox DW
Assistant Secretary for Economic Policy

SUBJECT: U.S. Financial Exposure to Troubled Economies of East Asia

We have expanded our review of U.S. financial exposure to East Asia, utilizing analyses provided by the Federal Reserve System to OASIA and Domestic Finance as well as updating our brief earlier review for new bank data released Wednesday. The key conclusions are:

- The exposure of U.S. banks to five core troubled East Asian economies -- Indonesia, Korea, Malaysia, Phillippines and Thailand -- is heavily concentrated among the large money center banks, which are active internationally. For the banking system, overall, the exposure relative to capital is 12 percent. For the money center banks, the ratio to their capital of assets due to them from these core countries is 28 percent. (On some definitions, it is even higher and is considerably higher, but below 100 percent, for the most exposed of these banks.)

- Obligations of Asian borrowers to U.S. banks are about 2.2 times as big as were obligations of Mexican borrowers at the onset of the 1994-95 Mexican financial crisis.

- The strong capital position of U.S. banks currently provides good protection for depositors and the deposit insurance agency as long as the Asian turmoil is contained within the four or five countries most directly affected now. If, however, non-payment problems were to mount and spread more widely among Asian economies, the size of exposures by U.S. banks could become problematic.

- Given the modest share of U.S. portfolio investment in the currently troubled East Asian economies, it seems likely that economic consequences associated with declining security values would be more likely to flow from the effects on the U.S. stock market of disappointing U.S. corporate earnings rather than from the loss of value of East Asian portfolio investments.

cc: Hawke, Gensler, Lipton, Geithner

U.S. FINANCIAL EXPOSURE TO TROUBLED ECONOMIES IN EAST ASIA

Financial repercussions on the United States from developments in the troubled economies of East Asia could work through different sectors. The banking sector is probably the most important, for major defaults by borrowers from U.S. institutions could complicate the execution of monetary policy, impose budget burdens on the deposit insurance agencies, and inhibit bank lending, thereby slowing the economy. Sizable losses in the value of portfolio investments could also cause difficulties for U.S. firms if they compromised the soundness of pension plans or insurance companies, as well as imposing losses of wealth on household investors in mutual funds or direct holdings. Losses of financial institutions, and reductions in sales and profits by nonfinancial firms could also undermine confidence in sustained non-inflationary expansion of the U.S. economy and hence cause more prolonged declines in the stock market than the volatility that has been seen to date. This last channel is the most speculative and will not be addressed here. Estimates of the magnitude of exposure of banks and other financial institutions are presented below.

Commercial Banks

Commercial banks hold, in dollar terms, about 2.2 times as many obligations (essentially loans and derivatives) of residents and firms in the core group of troubled East Asian economies -- South Korea, Indonesia, Malaysia, Phillippines and Thailand -- as they did assets from Mexico at the end of 1994, when that financial crisis broke. The total "cross boarder exposure" of U.S. commercial banks to these Asian economies amounted to $39.3 billion at the end of September.

- This total was 12 percent of the capital of all banks (about the same as the downward revised estimate for June); this is about 1.4 times the ratio to capital (8.5 percent) of Mexican exposure in 1994, reflecting faster growth of capital than foreign asset holdings since then.

- The total was 1.3 percent of total assets of banks; exposure to Mexico had been 0.8 percent of total assets.

The exposure of banks is heavily concentrated among the **large money center banks,** which are active internationally.

- **The ratio of assets due from the core group of troubled Asian economies to capital of the money center banks was 28 percent in September (essentially unchanged from June).**

- **Exposure to Korea alone**, which edged up by about $200 million between June and September, was $14.7 billion. This was **about 13 percent of bank capital** (about 17 percent of the bank holding companies' common equity -- or regulatory "top tier" capital).

- **Including Indonesia, Malaysia and Thailand about doubles that exposure.** This total was almost 26 percent of capital; including Phillippines lifts the ratio to capital **to 28 percent in September.**.

- The ratios of exposure to capital just cited are *net* of a class of offsetting liabilities. A ratio to capital as high as *43 percent* is obtained by going to the opposite extreme and putting the corresponding class of assets on a *gross* basis for the *core five East Asian countries.*

- **If half of banks' exposure (by some reasonable definition) were to result in defaults, the amount of capital lost would exceed one year's earnings by a couple of percentage points.**

- There is a **wide range of exposure-to-capital ratios, however, even among the money center banks.** Exposure for none of these banks is estimated by the Federal Reserve to be above 70 percent, using the broadest measure of exposure as a ratio to essentially common equity capital, cumulated for four of the core five countries (omitting Phillipines). Another 75 percent of capital is exposed, however, to Hong Kong, China and Taiwan in the case of the most exposed bank, and including Japan raises the maximum exposure to 272 percent of the most exposed bank's common equity capital.

  -- **These estimates imply that the strong capital position of banks provides good protection for depositors and the deposit insurance agency as long as the turmoil is contained within the four or five countries most directly affected now. If, however, non-payment problems spread more widely among Asian economies with losses mounting to the range of half of Asian assets, the size of exposures by U.S. banks could become problematic.**

Portfolio Capital

In contrast to the exposure of banks to debt obligations of troubled East Asian economies, U.S. holdings of securities -- equities and fixed income assets -- of these countries is relatively small. It is estimated that U.S. holdings of securities from the core five economies amount to about 5 percent of total holdings of foreign securities, (about $62 billion) and about 0.4 percent of total U.S. portfolio investments in stocks and bonds.

Exposure to the sharp fluctuations in market value of East Asian equities and to potential default of fixed income instruments varies substantially, of course, across financial firms and ultimate beneficiaries.

- It is estimated by one financial analyst that among major non-bank financial management firms -- insurance companies, mutual funds and pension funds -- the **top owner of Philippine equities had 3.5 percent of the firm's portfolio in assets from that country**. The top owner of **Indonesian equities had 3.1** percent of its portfolio in those assets. The corresponding measure of exposure for **Korea was 1 percent**. For Malaysia, Thailand, Singapore and Hong Kong, the exposures of top investors were well under one percent in each case.

- Among emerging-market mutual funds, about 20 percent ($3.4 billion) of the assets of Asian emerging market equity funds in September were in stocks of the core five East Asian countries. These funds had reduced their holdings in the core countries over the third quarter, according to one analyst, quoted by the Investment Company Institute. Over the same period, however, diversified emerging market equity funds were buying stocks of the core five economies (especially one fund which had been early to invest in Mexico after its 1994-95 financial crisis). These **global emerging market equity funds had 14 percent ($7.6 billion) of their portfolios in the stocks of the core five countries.**

- Diversified portfolios, in general, would be likely to have smaller shares of East Asian stocks than the emerging market mutual funds.

    -- One analyst knowledgeable about pension funds said that he would expect that pension fund investments generally would have no more than 10 percent of their assets in international investments, of which about one-fifth might be in East Asian assets.

    -- Another pension fund analyst guessed that defined benefit pension funds might have higher than average exposure to international -- and, hence, East Asian -- assets because of professional management more willing to diversify broadly to obtain yield. This would imply that problems resulting from these investments would affect the firms whose employees were covered by such pension funds rather than the owners of 401k plans.

- **Overall, it seems likely that economic effects of troubles in East Asian economies that are associated with declining security values would be more likely to flow from the effects on the U.S. stock market of disappointing U.S. corporate earnings rather than from the loss of value of East Asian portfolio investments.**

Economic Policy
1/15/97

Prepared by Susan Lepper

01/27/98 TUE 12:58 FAX

1998-SE-000921

001

PAT ROBERTS
KANSAS

302 HART SENATE OFFICE BUILDING
WASHINGTON, DC 20510-1605
202-224-4774

COMMITTEES:
ARMED SERVICES
AGRICULTURE
INTELLIGENCE
ETHICS

United States Senate

WASHINGTON, DC 20510-1605

January 27, 1998

The Honorable Robert E. Rubin
Secretary
Department Of the Treasury
1500 Pennsylvania Ave NW
Washington, DC 20220

Dear Mr. Secretary:

In response to the assistance provided to Thailand, Indonesia and South Korea in recent months, we are compelled to comment on the pervasive system of trade barriers imposed on American agricultural products by those and other Asian countries.

We recognize the critical importance of Asia to world economic growth. Likewise, we understand that many Asian businesses and workers will surely suffer as a result of the recent economic crisis and that economic recovery in Asia is important to American exports. However, while the United States must carefully consider its role in assisting financially troubled nations, one of our primary responsibilities should be to represent America's farmers and ranchers.

Within the past year, the Treasury Department has committed approximately $9.7 billion in bilateral lending to troubled Asian economies as part of an International Monetary Fund (IMF) program designed to produce major, structural reforms in their economic practices. However, the restructuring programs reportedly do not include substantial changes that require the recipient countries to provide greater access to foreign agriculture products as part of their reform measures. We believe such a requirement would represent both a fair action on behalf of U.S. producers and a major step toward improving Asia's overall economic health.

Many Americans will question U.S. assistance for Asian businesses without concurrent efforts to remove the barriers that prohibit American products from reaching Asia. Furthermore, since China, Russia and Japan may ultimately be affected by this global economic problem, it is imperative that you consider the importance of unfair barriers to market access for U.S. producers. Therefore, we respectfully request an opportunity to meet with you to discuss specific issues relating to market access on a country-by-country basis.

Sincerely,

Pat Roberts

Pat Roberts

Max Baucus

Max Baucus

cc: Dan Glickman, Secretary of Agriculture
Charlene Barshefsky, U.S. Trade Representative

letter to Treasury Secretary Robert Rubin
January 27, 1997

Larry E Craig

Bob Kerrey

Jesse Helms

Rick Santorum

Kay Bailey Hutchison

Chuck Hagel

Kent Conrad

Sam Brownback

John Ashcroft

Trent Lott

Dick Lugar

Chuck Grassley

Tom Harkin

Dirk Kempthorne

Kit Bond

Byron L. Dorgan

John Breaux

Paul Coverdell

1998-SE-002332

DEPARTMENT OF THE TREASURY
WASHINGTON, D.C. 20220

February 24, 1998

MEMORANDUM FOR SECRETARY RUBIN
DEPUTY SECRETARY SUMMERS
UNDER SECRETARY LIPTON
ASSISTANT SECRETARY GEITHNER

FROM: Daniel M. Zelikow DMZ
Deputy Assistant Secretary
Asia the Americas and Africa

SUBJECT: A Plan for Corporate Debt Restructuring in Asia

Attached you will find the latest iteration of our thinking on how Asian countries should approach their corporate debt problems. We learn more each day, so you can expect more refined, country-specific ideas next time. For now, bear in mind the following disclaimers:

- This plan is generic. Circumstances vary considerably in each country, so recommendations must be customized.
    - For example, in Korea, one of the key obstacles to restructuring (according to Ira Lieberman of the World Bank), is the network of cross-guarantees that exist within a chaebol. So the solution in that country will involve some agreement between debtors and creditors, possibly with government's legal backing, to treat these guarantees as a debt instrument that can be discounted or traded.
    - In Indonesia, the debtors reportedly are not paying, but in Korea they are. Thus, emphasizing a liquidation scenario may be more effective in getting the process going in the former country than the latter.
- In fact, implicit throughout is our assumption that moral suasion may be useful, even if, as we argue, an institutionalized mediation role for governments isn't.
    - Given their tendencies, it may take a call from the Blue House to get Korea's chaebol and banks to work out a deal together rather than continuing to ignore their mutual predicament.
- We've been deliberately vague about how a country would create a "credible liquidation scenario". In some cases, this would require an administrative, rather than legal, solution.

This draft benefitted from important contributions from: Anna Gelpern, David Huntington, Ann Salladin, Laure Redifer, and Wes McGrew.

Attachment

Draft 2 - 2/24/98

A Program for Corporate Debt Restructuring in Asia

The Problem of Corporate Debt

Excessive foreign currency-denominated debt of the non-financial corporate sector is a key aspect of the financial crisis in Asia. Over-leveraged local companies have been severely hurt by large currency depreciations and by the rapid slowdown in regional growth. As the value of foreign debts has exploded relative to the value of corporate assets, many companies have stopped servicing their obligations. Others will soon lose their ability to do so. Meanwhile, the scramble to pay foreign currency-denominated obligations and to secure forward cover for unhedged positions puts significant pressure on the spot foreign exchange rate.

Structural weaknesses, including non-functioning regulatory and enforcement regimes, insolvency laws, and inadequate disclosure rules have exacerbated the corporate debt problem. Uncertainty about what measures governments might take to help restructuring, as well general uncertainty about macroeconomic policy, have further deterred workouts. Without a clear and stable set of options, debtors and creditors have been reluctant to enter into restructuring arrangements.

The debt profile, and thus the nature and magnitude of the corporate debt problem, differs among the Asian economies. (See Attachment A.) The number and identity of debtors and creditors, among other factors, should dictate choices among policy remedies outlined below.

Policy Objectives

- Restore a Viable Corporate Sector. A restructuring strategy should help restore viable companies to operation, and facilitate market exit for non-viable companies.

- Restore Credit Flows. Corporate debt restructuring should both restore the confidence of foreign creditors and ease pressure on the domestic financial system.

- Alleviate Pressure on the Foreign Exchange Market. Policy should aim to extend the maturity structure of the country's external debt so as to alleviate pressure on the foreign exchange market.

- Limit Exposure to Governments' Foreign Exchange Reserves. Use of reserves to finance a restructuring program should be in conjunction with market-based reform measures that would control and minimize long-range exposure to reserves.

- Contain Moral Hazard. Policy should seek to ensure, to the extent possible, that the costs of restructuring are borne by private debtors and creditors. Governments should avoid assuming commercial risk in failed transactions, particularly through guarantees, and should keep their own fiscal costs as low as possible.

- Emphasize Market-based Solutions. With appropriate incentives (outlined below), negotiated agreements among private parties will more likely result in faster restructuring, higher asset recovery and restoration of credit flows than would government-centered restructuring programs.

Components of a Policy

Any government initiatives or inducements to restructuring must be announced early and clearly. Governments should avoid changing or enhancing such inducements over time, or giving the impression that they might -- this will likely delay or discourage restructuring. Implementation of the restructuring measures must be fast and transparent.

Further, announcement of new policies should take into account policies and commitments already in place. However sensible in substance, if the new measures are viewed by markets as another in a series of government policy turnarounds, they will not be believed and will not work.

Set forth below are three key components of the proposed government restructuring program:

I. Strengthen Regulatory Framework for Restructuring

Effective threat of liquidation, a wide range of reorganization options, and availability of information about the debtors are essential for effective restructuring negotiations.

Liquidation Regime

To date, liquidation of failing companies has not been a credible alternative to restructuring even in countries where liquidation is a part of the insolvency regime. This has favored equity holders and management at the expense of creditors, and has operated as a disincentive to restructuring.

A strengthened liquidation regime should include the following features:

- Option to Institute Proceedings. Liquidation proceedings should be instituted at the option of either the debtor or the creditors when appropriate requirements are met.
- Fast, Transparent and Efficient Process. Liquidations should be subject to strict deadlines and conducted in a transparent and efficient manner under the supervision of qualified independent administrators. Receivership may be a necessary intermediate option.
- Priority System. A clear priority system should be established for distribution of proceeds from liquidation. Special protections for secured creditors, among others, should be considered.
- Asset Sales. Regulatory impediments to asset sales should be minimized.

Restructuring Options

Equity reorganization, management changes and injections of capital on super-priority terms should be options for restructuring in negotiations among debtors and creditors. Where domestic regulation bars or inhibits such options, governments should act to remove the barriers.

Disclosure

Neither liquidation nor reorganization can proceed without reliable information about the debtors. There must be a meaningful way for creditors and others in the market to tell viable companies from non-viable ones, and to value assets in restructuring and liquidation. Promulgating disclosure regulations and revising accounting standards will likely take time, although the process should be started immediately. To the extent practical in the national context, governments should encourage disclosure and information sharing among debtors and creditors by informal means. Technical assistance may be particularly useful in this area.

II. Strengthen Incentives to Collective Action

Individual creditors may block restructuring by voting against a restructuring agreement or litigating to recover on their obligations. Bond debt is most vulnerable to such problems because of the large number of creditors involved, lack of relationships or coordination among them, and terms which often require unanimous consent of all holders to a restructuring. In addition, well-positioned creditors may seek to gain unfair advantage by pressuring debtors to violate priorities and dissipate assets. To address collective action problems and preserve assets, Governments may consider implementing the following measures, common to insolvency regimes worldwide:

- Automatic Stay. Permit a pause (automatic stay) on litigation and debt collection while a specified majority of creditors is negotiating restructuring.
    - This measure would differ from a standstill or a moratorium, in that it could be invoked at the option of debtors or creditors on a company-by-company basis, where specified conditions are met.
    - A stay should be presumptively time-limited, extendable on meeting specified conditions, to discourage protracted negotiations which diminish asset value.

- Majority Action. Permit a specified majority of creditors to bind all creditors to a restructuring arrangement.
    - This measure is most useful for bond debt constrained by unanimous action terms.
    - This measure may be applied within classes of credits and to company liabilities as a whole. For political reasons, consent of a specified majority of local creditors may also be required.

Certain classes of debt (e.g., trade credits, secured credits) may require differential treatment in restructuring on policy grounds.

An important issue is whether such measures would be enforceable abroad. If they are not enforced, creditors abroad may be able to obtain judgments against and seize foreign assets of Asian debtors. Whether a foreign court would favor abrogation of contractual rights which would result from such measures would likely depend on the degree to which they resemble bankruptcy measures in the its own jurisdiction and result in fair treatment of creditors.

III. Implement an Exchange Rate Protection Program

Uncertainty about the real exchange rate path and exchange rate volatility makes it difficult for debtors and creditors to negotiate long-range restructuring plans. Severely undervalued local currencies trigger debtor insolvency. Exchange rate protection programs cover debtors and creditors against exchange rate volatility, permit longer-term financial planning, and allow governments to manage the outflow of foreign exchange in a manner consistent with their economic adjustment programs. Exchange rate protections were used in Mexico, Brazil and the Philippines during the financial crises of the 1980s.

Under a typical program, the central bank stands ready to sell hard currency (for future delivery) to eligible debtors at a specified exchange rate to meet payments on restructured debt. Debtors have the option to (i) pay the central bank up front in local currency in return for the central bank's promise to deliver hard currency when due under the restructured obligation or (ii) "borrow" local currency from the central bank. In the second option, debtors service their local currency debt to the central bank in exchange for hard currency payments on a schedule negotiated with the creditors. The government assumes no commercial risk -- if debtors do not service local currency loans from the central bank, the central bank stops the hard currency payments. Additional features may reflect particular exchange management policies or economic adjustment concerns.

The following issues must be addressed in connection with an exchange rate protection program:

- Pricing. Pricing of the program is determined by fixing the exchange rate at which debtors may purchase the forward cover from the central bank. If the exchange rate is too weak (depreciated), debtors will be unable to service their debts. If it is too strong, that will impose fiscal costs on the government, making it vulnerable to accusations of undue subsidy and moral hazard.

- Interest Rate and Terms of Repayment. It is important that when debtors borrow local currency from the central bank to purchase forward foreign exchange cover, they pay market interest rates. If inflation is high (which means that loans amortize very quickly), some back loading of repayment obligations (e.g., grace on amortization or some interest capitalization) may be needed to ensure debtors are able to service their loans.

- Rescheduling Requirements. Rescheduling targets are a prerequisite for entering the program. In Mexico, underlying debt had to be rescheduled for a minimum of six years with three years grace, with more favorable exchange rates for longer terms. Another issue is whether debtors should be required to reschedule a specified minimum portion of their overall foreign debt to participate in the program. Alternatively, restructuring can proceed and exchange rate protection can be granted on a loan-by-loan basis, with no threshold requirements or package treatment of debts.

- Eligibility. Eligibility can be limited to debt denominated in foreign currency and owed to foreign creditors. Alternatively, it can be extended to local currency debt indexed to a foreign currency, and owed to domestic creditors. There may be a need to treat certain other categories of debt, such as suppliers' credits, separately.

- Exit Options. Companies should have the option to exit the program should their financial health (and the real exchange rate) recover. Most firms in Mexico exited early.

A significant drawback of this scheme is that it may give access to government and possibly IFI financing to private corporations, some of which may be open to charges of corruption. The rationale for proceeding is the belief that the scheme would lead to more transparent use of the reserves than may otherwise occur, given such companies access to financing through the banking system. The aim is to forestall a comprehensive default and nationalization that would result in an even greater drain on government and IFI resources.

Informal Measures

Governments may be able to encourage restructuring through informal measures designed to increase transparency and cooperation among debtors and creditors. Because early restructuring by a few prominent debtors is likely to be emulated widely and rapidly, governments may consider targeting their efforts to a smaller number of promising workout cases.

Other Issues

The threat of massive liquidations must be accompanied by measures to mitigate social disruptions which are likely to result, including unemployment.

Liquidation and reorganization measures will require an administrative infrastructure, however minimal. Such an infrastructure must be established fast, be staffed with qualified independent personnel and have the necessary authority to fulfill its mandate. Technical assistance may be necessary in this area.

ATTACHMENT A

DRAFT

Korea

Corporate Debt
(USD billions)

	MOFE and BOK est.	IMF	Seoul Shinmun newspaper reported
Stock of outstanding foreign debts	$95.3		$93.0
-short term		$22.5 1/	
-to creditors outside Korea	$53.0		$20.0
-to overseas creditors	$32.0		
-to Korean subs overseas	$21.0		
-to foreign banks in Korea	$42.3		$30.0
Memo items:			
Trade related loans (aut. rollover)	$19.0		$43.0
Amount due in 1998	$13.0		
- short term	$10.0		
- long term	$3.0		

1/ as of end-January was $22.5 billion, includes trade credit, loans for oil imports, and advance receipts of export. In line with international standards, these data exclude nonresident subsidiaries of Korean corporations. Based on a biannual survey of Korean corporations. The obligations of these subsidiaries at end-June 1997 were unofficially estimated at $23.7 billion

DRAFT

Indonesia

Total External Corporate Debt: (USD billions)	Gov't Workout Exercise	IMF
Total private external debt	$73.96	$66.2
-Financial institutions	$8.5	
-Non-financial	$53.6	
-Joint ventures	$30.5	
-Commercial Paper (JV & domestic companies)	$11.9	
Memo:		
-short term debt (includes fin. inst.)		$32.4 1/
-short term external loans 1/ denominated in foreign currency		$13.1
-banks		$3.4
-private enterprises		$9.7
-Instruments held in foreign currency by non-res. 2/		$5.2
- promisory notes		$4.7
-CP		$0.4
-CDs		$0.1
-Instruments held in rupiah by non-res. 2/		$14.1
-promisory notes		$7.6
-CP		$0.9
-CDs		$3.1
-Deposits		$1.6
-SBIs		$1.0

1/ These loans and credits are mostly from banks or parent companies, extended partly through banks. While creditor composition for short term external loans is not available, Japan accounts for about 40% of all such private external debt. About half of this is loans to Japanese companies, the rest to Indonesian companies.

2/ These short term debt instruments are less likely to be rolled over than loans in category 1, since they tend not to be held by parent companies (most are held by investment banks). Among these instruments, promisory notes are less likely to be rolled over, since they are not rated. Also the foreign currency-denominated instruments carry only credit risk, while the rupiah denominated instruments carry credit and exchange risk; the latter are therefore less likely to be rolled over.

DRAFT

Thailand: Corporate Debt Estimates
(billions of USD)

Owed Directly to External Creditors (End-1997)	**40.9**
Bonds	7.0
M & L Term Bank Credits	25.0
Short Term Bank Credits	5.3
Trade Credits	3.6
	2/
Owed to Domestic Creditors	**97.5**
Domestic Bonds	4.0
Owed to Domestic Creditors	
Frozen Finance Companies	11.5
Other Finance Companies	10.0
Commercial Banks	72.0
Total Corporate Debt	**134.8**

Amortization Payments Due in 1998
(including short-term debt)

Owed Directly to External Creditors	14.9
	2/
Denominated in Domestic Currency	30.0
Total Amortization	**44.9**

1/ Data sources include IMF for external debts and payments and Bank of Thailand data for domestic debts. Assumptions included, 25% of Thai bank loans and 50% of finance company loans mature in 1998. Dated Bank of Thailand data was grossed up by the estimate nominal interest rate. Actual numbers could vary substantially.

2/ About 30% of the debt is estimated to have been financed from foreign borrowing.

1998-SE-003286

DEPARTMENT OF THE TREASURY
WASHINGTON, D.C.

March 11, 1998

SECRETARY OF THE TREASURY

The Honorable Senator
United States Senate
Washington, D.C. 20510

Dear Senator:

In today's increasingly interdependent global economy, the United States has enormously important economic interests in the financial stability of our trading partners in Asia and the rest of the world. The Departments of Treasury and Commerce are in the process of analyzing the significant stakes states have in maintaining strong exports in Asia.

The countries in Asia are our customers, our competitors, and our security partners. Financial instability, economic distress, and depreciating currencies all have direct effects on our exports to the region, and on the competitiveness of our goods, our agricultural products, and our services. Promoting stability in Asia helps protect American jobs.

- Thirty percent of U.S. exports go to Asia, supporting millions of U.S. jobs, and we export more to Asia than to Europe.

- Forty percent of all U.S. agricultural exports go to Asia.

- Further reductions in Asian purchasing power mean fewer high-paying jobs in U.S. export industries. More American exports create better American jobs. Studies have shown that export-related jobs in the U.S. pay an average of 15 percent more than other jobs.

- The loss of export markets, therefore, stands to hurt the paychecks of many American workers and their families.

The International Monetary Fund (IMF) has taken the lead role to help restore financial stability to affected Asian economies by designing programs to reform their economies. With tremendous expertise and technical resources, the IMF is uniquely positioned to help countries shape effective reform programs. As a multinational organization, it is able to require an economically distressed country to accept conditions that no contributing nation could require on its own. Finally -- and critically important -- the IMF internationalizes the burden during a global financial crisis by using its pool of capital instead of the United States having to bear that burden alone.

In the past fifty years our contribution to the IMF has not cost the taxpayer one dime. When the IMF draws on our commitments, we receive an interest-bearing offsetting claim on the IMF. There are no budget outlays. Our contribution does not increase the deficit or divert resources from other spending priorities.

Support for our periodic pledge to the IMF, and support for a new emergency fund, the New Arrangements to Borrow (NAB), which supplements the IMF's resources to deal with system-wide crises such as Asia, is critical. We are asking Congress to approve both requests, for the NAB and the Quota Increase, now so that the IMF has the resources necessary to protect U.S. interests in the event that this crisis spreads or intensifies. Failure to take decisive action designed to maintain stability could harm the U.S. economy and American workers and farmers.

Enclosed you will find the relevant data for your state from this state-by-state analysis on the importance of Asian markets to individual states. We hope you will have a chance to review it, and look forward to working with you on this important issue.

Sincerely,

Robert E. Rubin

Robert E. Rubin
Secretary of the Treasury

William M. Daley
Secretary of Commerce

Enclosures

THE IMPORTANCE OF ASIA TO ALASKA

Over the past several decades, growth in international trade has made the world's economies increasingly interdependent. During that period, trade with Asia has become an important component of U.S. economic growth. Today, exports to Asia account for 30 percent of all U.S. exports; agricultural exports to Asia constitute 40 percent of all U.S. agricultural exports. Like the U.S. as a whole, the economy of Alaska has forged close ties with the economies of Asia. As a result, the financial crisis in Asia is likely to have a real impact on the lives of Alaska's residents and businesses.

- Alaska exported $492 million in merchandise to Asia in 1996. These exports accounted for 57.9 percent of the state's total merchandise exports.

- Exports to Asia are an important component of Alaska's economy. In 1996, exports to Asia accounted for 2.0 percent of the state's gross state product.

A number of Alaska's important industries have a major stake in the health of Asian economies:

- The crude petroleum and natural gas sector is Alaska's leading exporter to Asia. In 1996, this sector accounted for Asian exports of $145 million and 29 percent of the state's exports to that region.

- The next largest source of Asian exports in Alaska is the metallic ores and concentrates sector, which accounted for $82 million, or 17 percent, of the state's exports to the region in 1996. Exports to Asia in this sector increased 48 percent between 1993 and 1996.

- The paper products sector was the third largest source of Alaska's Asian exports, accounting for $64 million, 13 percent of the state's total to the region, in 1996.

While it is in Alaska's economic interests for there to be healthy economies throughout the region, the economies of a few nations are of particular importance to the state.

- Japan and Korea account for most of Alaska's Asian exports. Japan receives 55 percent while Korea accounts for 26 percent of the state's Asian exports.

One important danger of the Asian financial crisis is the contagion effect — the possibility that the trouble could spread and other developing nations could face similar economic and financial difficulties. Such an event could have an even more significant impact on Alaska's economy.

Sources: Department of Commerce, Department of Agriculture, Standard & Poor's
Note: Asia refers to China, Hong Kong, Indonesia, Japan, Korea, Malaysia, Philippines, Singapore, Taiwan, and Thailand.
All export figures refer to merchandise exports, which consist of manufactures, agricultural and livestock products, and other commodities. Except where otherwise noted, export figures are calculated based on the location of exporter, which is not necessarily the same as the location of producer.

THE IMPORTANCE OF ASIA TO ALABAMA

Over the past several decades, growth in international trade has made the world's economies increasingly interdependent. During that period, trade with Asia has become an important component of U.S. economic growth. Today, exports to Asia account for 30 percent of all U.S. exports; agricultural exports to Asia constitute 40 percent of all U.S. agricultural exports. The Department of Agriculture estimates that in 1996, Alabama produced $503 million in agricultural exports. And, like the U.S. as a whole, the economy of Alabama has forged close ties with the economies of Asia. As a result, the financial crisis in Asia is likely to have a real impact on the lives of Alabama's residents and businesses.

- Alabama exported $761 million of merchandise to Asia in 1996. These exports accounted for 20.6 percent of the state's total merchandise exports.

- Exports have been a key vehicle of growth for Alabama. Between 1993 and 1996, the state's exports to Asia increased by 14.7 percent.

A number of Alabama's important industries have a major stake in the health of Asian economies. The principal sectors that export to Asia include:

- The paper products sector, which was responsible for $178.9 million of Alabama's Asian exports in 1996, and accounts for 24 percent of the state's Asian exports.

- The electronic and electric equipment industry, which exported $120.7 million, or 16 percent, of Alabama's exports to Asia in 1996.

- The chemical products sector, which accounted for $137 million of exports from Alabama to Asia in 1996.

One important danger of the Asian financial crisis is the contagion effect — the possibility that the trouble could spread and other developing nations could face similar economic and financial difficulties. Such an event could have an even more significant impact on Alabama's economy.

- In 1996, Alabama exported $1.2 billion of merchandise to the world's developing nations. Exports to these countries accounted for 31.6 percent of the state's exports.

Sources: Department of Commerce, Department of Agriculture, Standard & Poor's
Note: Asia refers to China, Hong Kong, Indonesia, Japan, Korea, Malaysia, Philippines, Singapore, Taiwan, and Thailand.
All export figures refer to merchandise exports, which consist of manufactures, agricultural and livestock products, and other commodities. Except where otherwise noted, export figures are calculated based on the location of exporter, which is not necessarily the same as the location of producer.

THE IMPORTANCE OF ASIA TO ARKANSAS

Over the past several decades, growth in international trade has made the world's economies increasingly interdependent. During that period, trade with Asia has become an important component of U.S. economic growth. Today, exports to Asia account for 30 percent of all U.S. exports; agricultural exports to Asia constitute 40 percent of all U.S. agricultural exports. The Department of Agriculture estimates that in 1996, Arkansas produced $1.7 billion in agricultural exports. And, like the U.S. as a whole, the economy of Arkansas has forged close ties with the economies of Asia. As a result, the financial crisis in Asia is likely to have a real impact on the lives of Arkansas's residents and businesses.

- Arkansas exported $391 million of merchandise to Asia in 1996. These exports accounted for 19.6 percent of the state's total merchandise exports.

- Exports have been a key vehicle of growth for Arkansas. Between 1993 and 1996, the state's exports to Asia increased by 52 percent. Most notably, exports to Hong Kong, which account for 28 percent of the state's Asian exports, increased 200 percent between 1993 and 1996.

In addition, Arkansas businesses sell a wide range of products to Asia and therefore have a major stake in the health of Asian economies. The principal sectors that export to Asia include:

- The food products sector, which in 1996 was responsible for $166.9 million, or 43 percent, of Arkansas's Asian exports.

- The chemical products industry, which exported 23 percent, or $91.3 million, of Arkansas's total exports to Asia in 1996.

- The fish and marine products sector, which increased its exports to Asia from $1.3 million to $31.3 million between 1993 and 1996. Exports in this sector now account for 8 percent of the state's Asian exports.

One important danger of the Asian financial crisis is the contagion effect — the possibility that the trouble could spread and other developing nations could face similar economic and financial difficulties. Such an event could have an even more significant impact on the economy of Arkansas.

Sources: Department of Commerce, Department of Agriculture, Standard & Poor's
Note: Asia refers to China, Hong Kong, Indonesia, Japan, Korea, Malaysia, Philippines, Singapore, Taiwan, and Thailand.
All export figures refer to merchandise exports, which consist of manufactures, agricultural and livestock products, and other commodities. Except where otherwise noted, export figures are calculated based on the location of exporter, which is not necessarily the same as the location of producer.

THE IMPORTANCE OF ASIA TO ARIZONA

Over the past several decades, growth in international trade has made the world's economies increasingly interdependent. During that period, trade with Asia has become an important component of U.S. economic growth. Today, exports to Asia account for 30 percent of all U.S. exports; agricultural exports to Asia constitute 40 percent of all U.S. agricultural exports. Like the U.S. as a whole, the economy of Arizona has forged close ties with the economies of Asia. As a result, the financial crisis in Asia is likely to have a real impact on the lives of Arizona's residents and businesses.

- Arizona exported $4.5 billion in merchandise to Asia in 1996. These exports accounted for 44.8 percent of the state's total merchandise exports.
- Exports to Asia are an important component of Arizona's economy. In 1996, exports to Asia accounted for 4.0 percent of the state's gross state product.
- Exports have been a key vehicle of growth for Arizona. Between 1993 and 1996, the state's exports to Asia increased by 96.5 percent.
- **Among the 50 states, Arizona ranks eighth in exports to Asia.**

A number of Arizona's important industries have a major stake in the health of Asian economies:

- The electric and electronic equipment sector accounted for $3.2 billion, or 73 percent, of the state's Asian exports in 1996. Arizona's Asian exports in this sector increased 110 percent between 1993 and 1996.
- The industrial machines and computer sector is the second largest source of Arizona's exports to Asia, with $317 million in 1996. Exports from this sector increased 115 percent between 1993 and 1996.

One important danger of the Asian financial crisis is the contagion effect — the possibility that the trouble could spread and other developing nations could face similar economic and financial difficulties. Such an event could have an even more significant impact on Arizona's economy.

- In 1996, Arizona exported $5.0 billion of merchandise to the world's developing nations. Exports to these countries accounted for 50.3 percent of the state's exports and 4.5 percent of the gross state product.

Sources: Department of Commerce, Department of Agriculture, Standard & Poor's
Note: Asia refers to China, Hong Kong, Indonesia, Japan, Korea, Malaysia, Philippines, Singapore, Taiwan, and Thailand.
All export figures refer to merchandise exports, which consist of manufactures, agricultural and livestock products, and other commodities. Except where otherwise noted, export figures are calculated based on the location of exporter, which is not necessarily the same as the location of producer.

THE IMPORTANCE OF ASIA TO CALIFORNIA

Over the past several decades, growth in international trade has made the world's economies increasingly interdependent. During that period, trade with Asia has become an important component of U.S. economic growth. Today, exports to Asia account for 30 percent of all U.S. exports; agricultural exports to Asia constitute 40 percent of all U.S. agricultural exports. Like the U.S. as a whole, the California economy has forged close ties with the economies of Asia. As a result, the financial crisis in Asia is likely to have a real impact on the lives of California's residents and businesses.

- **California is the nation's leading exporter to Asia, accounting for 28 percent of total U.S. exports to the region.**

- California exported $51.2 billion of merchandise to Asia in 1996. These exports accounted for 51.9 percent of the state's total merchandise exports.

- Exports have been a key vehicle of growth for California. Between 1993 and 1996, the state's exports to Asia increased by 58.9 percent.

- Of note is Korea, the recipient of 14.5 percent, or $7.4 billion, of California's Asian exports in 1996. Exports to Korea increased 97 percent between 1993 and 1996.

- Exports to Asia are an important component of California's economy. In 1996, exports to Asia accounted for 5.3 percent of the state's gross state product.

A number of California's important industries have a major stake in the health of Asian economies.

- The electric and electronic equipment industry accounts for one-third of California's exports to Asia, with $16.7 billion.

- California's industrial machines and computers sector accounts for 23 percent of the state's exports to Asia, with $11.8 billion.

- The agricultural sector was responsible for $1.7 billion in exports from California to Asia in 1996.

One important danger of the Asian financial crisis is the contagion effect — the possibility that the trouble could spread and other developing nations could face similar economic and financial difficulties. Such an event could have an even more significant impact on California's economy.

Sources: Department of Commerce, Department of Agriculture, Standard & Poor's
Note: Asia refers to China, Hong Kong, Indonesia, Japan, Korea, Malaysia, Philippines, Singapore, Taiwan, and Thailand.
All export figures refer to merchandise exports, which consist of manufactures, agricultural and livestock products, and other commodities. Except where otherwise noted, export figures are calculated based on the location of exporter, which is not necessarily the same as the location of producer.

THE IMPORTANCE OF ASIA TO COLORADO

Over the past several decades, growth in international trade has made the world's economies increasingly interdependent. During that period, trade with Asia has become an important component of U.S. economic growth. Today, exports to Asia account for 30 percent of all U.S. exports; agricultural exports to Asia constitute 40 percent of all U.S. agricultural exports. The Department of Agriculture estimates that in 1996, Colorado produced $1.1 billion in agricultural exports. And, like the U.S. as a whole, the economy of Colorado has forged close ties with the economies of Asia. As a result, the financial crisis in Asia is likely to have a real impact on the lives of Colorado's residents and businesses.

- Colorado exported $3.6 billion to Asia in 1996. These exports accounted for 35.5 percent of the state's total exports.
- Exports to Asia are an important component of Colorado's economy. In 1996, exports to Asia accounted for 3.1 percent of the state's gross state product.
- Exports have been a key vehicle of growth for Colorado. Between 1993 and 1996, the state's exports to Asia increased by 108 percent.
- Of note is Thailand, which received 7 percent of the state's Asian exports. Colorado's exports to Thailand increased 375 percent between 1993 and 1996.
- **Among the 50 states, Colorado ranks 13th in exports to Asia.**

Many of Colorado's important industries have a major stake in the health of Asian economies.

- The industrial machines and computers sector was responsible for $1.7 billion dollars of Colorado's exports in 1996, or 47 percent of the state's Asian exports. Exports from this sector grew by 91 percent between 1993 and 1996.
- Twenty-five percent, or $913 million, of Colorado's Asian exports come from the electric and electronic equipment sector in 1996.

One important danger of the Asian financial crisis is the contagion effect — the possibility that the trouble could spread and other developing nations could face similar economic and financial difficulties. Such an event could have an even more significant impact on Colorado's economy.

Sources: Department of Commerce, Department of Agriculture, Standard & Poor's
Note: Asia refers to China, Hong Kong, Indonesia, Japan, Korea, Malaysia, Philippines, Singapore, Taiwan, and Thailand.
All export figures refer to merchandise exports, which consist of manufactures, agricultural and livestock products, and other commodities. Except where otherwise noted, export figures are calculated based on the location of exporter, which is not necessarily the same as the location of producer.

THE IMPORTANCE OF ASIA TO CONNECTICUT

Over the past several decades, growth in international trade has made the world's economies increasingly interdependent. During that period, trade with Asia has become an important component of U.S. economic growth. Today, exports to Asia account for 30 percent of all U.S. exports; agricultural exports to Asia constitute 40 percent of all U.S. agricultural exports. Like the U.S. as a whole, the Connecticut economy has forged close ties with the economies of Asia. As a result, the financial crisis in Asia is likely to have a real impact on the lives of Connecticut's residents and businesses.

- Connecticut exported $4.0 billion of merchandise to Asia in 1996. These exports accounted for 30.7 percent of the state's total merchandise exports.
- Exports have been a key vehicle of growth for Connecticut. Between 1993 and 1996, the state's exports to Asia increased by 34.7 percent; most notably, state exports to Thailand and Indonesia, each of which account for about 5 percent of the state's Asian exports, increased by 255 percent and 114 percent, respectively, over that period.
- Exports to Asia are an important component of Connecticut's economy. In 1996, exports to Asia accounted for 3.3 percent of the state's gross state product.
- **Among the 50 states, Connecticut ranks 11th in exports to Asia.**

A number of Connecticut's important industries have a major stake in the health of Asian economies. The principal sectors that export to Asia include:

- The chemical products industry, which accounted for $1 billion, or 25.7 percent, of the state's exports to Asia in 1996.
- The agricultural sector, which was responsible for $985 million of the state's exports to Asia in 1996. Connecticut's exports to Asia in this sector, which account for 24.6 percent of the state's total to the region, grew 183.5 percent from 1993 to 1996.
- The transportation equipment industry, which accounted for $404 million, or 10 percent, of the state's 1996 exports to Asia.

One important danger of the Asian financial crisis is the contagion effect — the possibility that the trouble could spread and other developing nations could face similar economic and financial difficulties. Such an event could have an even more significant impact on Connecticut's economy.

- In 1996, Connecticut exported $5.7 billion of merchandise to the world's developing nations. Exports to these countries accounted for 44.0 percent of the state's exports and 4.8 percent of the gross state product.

Sources: Department of Commerce, Department of Agriculture, Standard & Poor's
Note: Asia refers to China, Hong Kong, Indonesia, Japan, Korea, Malaysia, Philippines, Singapore, Taiwan, and Thailand.
All export figures refer to merchandise exports, which consist of manufactures, agricultural and livestock products, and other commodities. Except where otherwise noted, export figures are calculated based on the location of exporter, which is not necessarily the same as the location of producer.

THE IMPORTANCE OF ASIA TO DELAWARE

Over the past several decades, growth in international trade has made the world's economies increasingly interdependent. During that period, trade with Asia has become an important component of U.S. economic growth. Today, exports to Asia account for 30 percent of all U.S. exports; agricultural exports to Asia constitute 40 percent of all U.S. agricultural exports. Like the U.S. as a whole, the economy of Delaware has forged close ties with the economies of Asia. As a result, the financial crisis in Asia is likely to have a real impact on the lives of Delaware's residents and businesses.

- Delaware exported $1.3 billion of merchandise to Asia in 1996. These exports accounted for 27.6 percent of the state's total merchandise exports.
- Exports have been a key vehicle of growth for Delaware. Between 1993 and 1996, the state's exports to Asia increased by 34.5 percent.
- Most notably, exports to Korea, which account for 16 percent of the state's total exports to Asia, increased 52 percent between 1993 and 1996.
- Exports to Asia are an important component of Delaware's economy. In 1996, exports to Asia accounted for 4.2 percent of the state's gross state product.

A number of Delaware's important industries have a major stake in the health of Asian economies. The principal sectors that export to Asia include:

- The chemical products sector, which in 1996 was responsible for $935.6 million, or 74 percent, of Delaware's Asian exports in 1996.
- The rubber and plastic products industry, which sent $105.8 million to Asia in 1996, accounting for 8 percent of the state's Asian exports.
- The scientific and measuring instruments sector, which sent exports worth $60.4 million to Asia in 1996, accounting for 5 percent of Asian exports.

One important danger of the Asian financial crisis is the contagion effect — the possibility that the trouble could spread and other developing nations could face similar economic and financial difficulties. Such an event could have an even more significant impact on Delaware's economy.

- In 1996, Delaware exported $1.8 billion of merchandise to the world's developing nations. Exports to these countries accounted for 38.8 percent of the state's exports and 5.8 percent of gross state product.

Sources: Department of Commerce, Department of Agriculture, Standard & Poor's
Note: Asia refers to China, Hong Kong, Indonesia, Japan, Korea, Malaysia, Philippines, Singapore, Taiwan, and Thailand.
All export figures refer to merchandise exports, which consist of manufactures, agricultural and livestock products, and other commodities. Except where otherwise noted, export figures are calculated based on the location of exporter, which is not necessarily the same as the location of producer.

THE IMPORTANCE OF ASIA TO FLORIDA

Over the past several decades, growth in international trade has made the world's economies increasingly interdependent. During that period, trade with Asia has become an important component of U.S. economic growth. Today, exports to Asia account for 30 percent of all U.S. exports; agricultural exports to Asia constitute 40 percent of all U.S. agricultural exports. The Department of Agriculture estimates that in 1996, Florida produced $1.2 billion in agricultural exports. And like the U.S. as a whole, the economy of Florida has forged close ties with the economies of Asia. As a result, the financial crisis in Asia is likely to have a real impact on the lives of Florida's residents and businesses.

- Florida's merchandise exports to Asia in 1996 had a value of $2.1 billion. These exports accounted for 10.6 percent of the state's total exports.
- Exports have been a key vehicle of growth for Florida. Between 1993 and 1996, the state's exports to Asia increased by 61 percent.
- In 1996, Korea accounted for 17 percent, or $351.6 million, of the state's Asian exports. From 1993 to 1996, Florida's exports to Korea increased 92.8 percent.

A number of Florida's important industries have a major stake in the health of Asian economies. The principal sectors that export to Asia include:

- The electric and electronic equipments sector, which in 1996 was responsible for $414 million, or 20 percent, of Florida's Asian exports.
- The industrial machinery and computers sector, which sent $359 million of Florida's exports to Asia in 1996. Exports in this industry accounted for 17 percent of the state's total to the region.
- The chemical products industry, which in 1996 sent goods worth $325 million to Asia and accounted for 16 percent of Florida's exports to the region.

One important danger of the Asian financial crisis is the contagion effect — the possibility that the trouble could spread and other developing nations could face similar economic and financial difficulties. Such an event could have an even more significant impact on Florida's economy.

- In 1996, Florida exported $13.9 billion of merchandise to the world's developing nations. Exports to these countries accounted for 70.9 percent of the state's exports and 3.9 percent of the gross state product.

Sources: Department of Commerce, Department of Agriculture, Standard & Poor's
Note: Asia refers to China, Hong Kong, Indonesia, Japan, Korea, Malaysia, Philippines, Singapore, Taiwan, and Thailand.
All export figures refer to merchandise exports, which consist of manufactures, agricultural and livestock products, and other commodities. Except where otherwise noted, export figures are calculated based on the location of exporter, which is not necessarily the same as the location of producer.

THE IMPORTANCE OF ASIA TO GEORGIA

Over the past several decades, growth in international trade has made the world's economies increasingly interdependent. During that period, trade with Asia has become an important component of U.S. economic growth. Today, exports to Asia account for 30 percent of all U.S. exports; agricultural exports to Asia constitute 40 percent of all U.S. agricultural exports. The Department of Agriculture estimates that in 1996, Georgia produced $1.3 billion in agricultural exports. And, like the U.S. as a whole, the economy of Georgia has forged close ties with the economies of Asia. As a result, the financial crisis in Asia is likely to have a real impact on the lives of Georgia's residents and businesses.

- Georgia exported $1.7 billion of merchandise to Asia in 1996. These exports accounted for 20.1 percent of the state's total exports.

- Exports have been a key vehicle of growth for Georgia. Between 1993 and 1996, the state's exports to Asia increased by 46 percent.

- Most notably, Korea accounted for 14 percent of the state's Asian exports in 1996. Between 1993 and 1996, the state's exports to Korea increased from $105.5 million to $236.5 million, an increase of 124 percent.

A number of Georgia's important industries have a major stake in the health of Asian economies. The principal sectors that export to Asia include:

- The paper products sector, which in 1996 was responsible for $228.7 million, or 13 percent, of Georgia's Asian exports.

- The electric and electronic equipment sector, which, with its $216.5 million of Asian exports, accounted for 12 percent of Georgia's exports to the region in 1996.

- The chemical products industry, which in 1996 was responsible for $181.3 million, or 10 percent, of the state's Asian exports.

One important danger of the Asian financial crisis is the contagion effect — the possibility that the trouble could spread and other developing nations could face similar economic and financial difficulties. Such an event could have an even more significant impact on Georgia's economy.

- In 1996, Georgia exported $3.9 billion of merchandise to the world's developing nations. Exports to these countries accounted for 45.3 percent of the state's exports and 1.9 percent of the gross state product.

Sources: Department of Commerce, Department of Agriculture, Standard & Poor's
Note: Asia refers to China, Hong Kong, Indonesia, Japan, Korea, Malaysia, Philippines, Singapore, Taiwan, and Thailand.
All export figures refer to merchandise exports, which consist of manufactures, agricultural and livestock products, and other commodities. Except where otherwise noted, export figures are calculated based on the location of exporter, which is not necessarily the same as the location of producer.

THE IMPORTANCE OF ASIA TO HAWAII

Over the past several decades, growth in international trade has made the world's economies increasingly interdependent. During that period, trade with Asia has become an important component of U.S. economic growth. Today, exports to Asia account for 30 percent of all U.S. exports; agricultural exports to Asia constitute 40 percent of all U.S. agricultural exports. Like the U.S. as a whole, the economy of Hawaii has forged close ties with the economies of Asia. As a result, the financial crisis in Asia is likely to have a real impact on the lives of Hawaii's residents and businesses.

- Hawaii exported $190 million of merchandise to Asia in 1996. These exports accounted for 65 percent of the state's total merchandise exports.

- Exports to Asia are a key component of a strong Hawaiian economy. Between 1993 and 1996, the state's exports to Asia increased by 12.5 percent.

A number of Hawaii's important industries have a major stake in the health of Asian economies:

- The refined petroleum products sector is Hawaii's leading exporter to Asia. In 1996 it exported $65 million and accounted for 34 percent of the goods the state shipped to the region. This sector in Hawaii has experienced tremendous export growth, rising 465 percent between 1993 and 1996.

- The food products sector exported $25 million and accounted for 13 percent of the state's Asian exports in 1996.

- The agricultural sector exported $20 million and accounted for nearly 11 percent of the state's Asian exports in 1996. This sector grew 93 percent between 1993 and 1996.

- Tourism contributes significantly to the Hawaiian economy; in 1996, tourists spent $10.7 billion. Over 35 percent of the state's visitors come from Asia. In addition, over 30 percent of Hawaii's jobs are tied to tourism.

One important danger of the Asian financial crisis is the contagion effect — the possibility that the trouble could spread and other developing nations could face similar economic and financial difficulties. Such an event could have an even more significant impact on Hawaii's economy.

Sources: Department of Commerce, Department of Agriculture, Standard & Poor's, Hawaiian Visitors & Convention Bureau
Note: Asia refers to China, Hong Kong, Indonesia, Japan, Korea, Malaysia, Philippines, Singapore, Taiwan, and Thailand.
All export figures refer to merchandise exports, which consist of manufactures, agricultural and livestock products, and other commodities. Except where otherwise noted, export figures are calculated based on the location of exporter, which is not necessarily the same as the location of producer.

THE IMPORTANCE OF ASIA TO IOWA

Over the past several decades, growth in international trade has made the world's economies increasingly interdependent. During that period, trade with Asia has become an important component of U.S. economic growth. Today, exports to Asia account for 30 percent of all U.S. exports. And, like the U.S. as a whole, the economy of Iowa has forged close ties with the economies of Asia. As a result, the financial crisis in Asia is likely to have a real impact on the lives of Iowa's residents and businesses.

- Agricultural exports to Asia constitute 40 percent of all U.S. agricultural exports. The Department of Agriculture estimates that in 1996, Iowa produced $4.7 billion in agricultural exports.
- Exports have been a key vehicle of growth for Iowa. Between 1993 and 1996, the state's exports to Asia increased by 48 percent.
- Between 1993 and 1996, Iowa's exports to Korea, which account for 18 percent of the state's Asian exports, rose from $57 million to $83 million, an increase of 46 percent.
- Exports to Thailand increased from $14 million to $22 million from 1993 to 1996, an increase of 61 percent.

Iowa businesses sell a wide range of products to Asia and therefore have a major stake in the health of Asian economies. The principal sectors that export to Asia include:

- The industrial machinery and computers sector exported $81 million and accounted for 17 percent of the state's merchandise exports to Asia in 1996.
- The primary metals industry, which in 1996 sent goods worth $36 million to Asia and accounted for 8 percent of the state's Asian exports.

One important danger of the Asian financial crisis is the contagion effect — the possibility that the trouble could spread and other developing nations could face similar economic and financial difficulties. Such an event could have an even more significant impact on Iowa's economy.

- In 1996, Iowa exported $653 million of merchandise to the world's developing nations. Exports to these countries accounted for 24.2 percent of the state's exports.

Sources: Department of Commerce, Department of Agriculture, Standard & Poor's
Note: Asia refers to China, Hong Kong, Indonesia, Japan, Korea, Malaysia, Philippines, Singapore, Taiwan, and Thailand.
All export figures refer to merchandise exports, which consist of manufactures, agricultural and livestock products, and other commodities. Except where otherwise noted, export figures are calculated based on the location of exporter, which is not necessarily the same as the location of producer.

THE IMPORTANCE OF ASIA TO IDAHO

Over the past several decades, growth in international trade has made the world's economies increasingly interdependent. During that period, trade with Asia has become an important component of U.S. economic growth. Today, exports to Asia account for 30 percent of all U.S. exports; agricultural exports to Asia constitute 40 percent of all U.S. agricultural exports. Like the U.S. as a whole, the economy of Idaho has forged close ties with the economies of Asia. As a result, the financial crisis in Asia is likely to have a real impact on the lives of Idaho's residents and businesses.

- Idaho exported $805 million in merchandise to Asia in 1996. These exports accounted for 50.0 percent of the state's total merchandise exports.

- Exports to Asia are an important component of Idaho's economy. In 1996, exports to Asia accounted for 2.9 percent of the state's gross state product.

- Exports have been a key vehicle of growth for Idaho. Between 1993 and 1996, the state's exports to Asia increased by 36 percent.

Idaho businesses sell a wide range of products to Asia and therefore have a major stake in the health of Asian economies:

- The industrial machines and computers sector accounted for the largest share of Idaho's Asian exports in 1996, with $290 million in 1996. This industry ships 36 percent of the state's total exports to Asia.

- The electric and electronic equipment sector was responsible for $279 million, or 35 percent, of Idaho's Asian exports in 1996.

- The food products sector exported $166 million and accounted for 21 percent of Idaho's exports to Asia in 1996. This sector increased its exports to Asia by 75 percent between 1993 and 1996.

One important danger of the Asian financial crisis is the contagion effect — the possibility that the trouble could spread and other developing nations could face similar economic and financial difficulties. Such an event could have an even more significant impact on Idaho's economy.

Sources: Department of Commerce, Department of Agriculture, Standard & Poor's
Note: Asia refers to China, Hong Kong, Indonesia, Japan, Korea, Malaysia, Philippines, Singapore, Taiwan, and Thailand.
All export figures refer to merchandise exports, which consist of manufactures, agricultural and livestock products, and other commodities. Except where otherwise noted, export figures are calculated based on the location of exporter, which is not necessarily the same as the location of producer.

THE IMPORTANCE OF ASIA TO ILLINOIS

Over the past several decades, growth in international trade has made the world's economies increasingly interdependent. During that period, trade with Asia has become an important component of U.S. economic growth. Today, exports to Asia account for 30 percent of all U.S. exports; agricultural exports to Asia constitute 40 percent of all U.S. agricultural exports. The Department of Agriculture estimates that in 1996, Illinois produced $4.0 billion in agricultural exports. And, like the U.S. as a whole, the Illinois economy has forged close ties with the economies of Asia. As a result, the financial crisis in Asia is likely to have a real impact on the lives of Illinois's residents and businesses.

- **Among the 50 states, Illinois ranks fifth in exports to Asia.**

- Illinois exported $8.6 billion of merchandise to Asia in 1996. These exports accounted for 26.8 percent of the state's total merchandise exports.

- Exports have been a key vehicle of growth for Illinois. Between 1993 and 1996, the state's exports to Asia increased by 81.1 percent; most notably, state exports to Indonesia increased by 261 percent.

- Exports to Asia are an important component of Illinois's economy. In 1996, exports to Asia accounted for 2.3 percent of the state's gross state product.

A number of Illinois's important industries have a major stake in the health of Asian economies. The principal sectors that export to Asia include:

- The electric and electronic equipment industry, which accounts for 32.7 percent of the state's exports to Asia. Illinois's Asian exports for this sector increased by 117 percent between 1993 and 1996.

- The industrial machinery and computers industry, which accounts for 15.6 percent of the state's exports to Asia. Exports in this sector more than doubled between 1993 and 1996.

- The agricultural sector, which accounts for 12.8 percent of the state's exports to Asia.

One important danger of the Asian financial crisis is the contagion effect — the possibility that if proper action is not taken to stabilize the Asian economies, the trouble could spread and other developing nations could face similar economic and financial difficulties. Such an event could have a serious impact on Illinois's economy.

- In 1996, Illinois exported $12.1 billion of merchandise to the world's developing nations. Exports to these countries accounted for 37.5 percent of the state's exports.

Sources: Department of Commerce, Department of Agriculture, Standard & Poor's
Note: Asia refers to China, Hong Kong, Indonesia, Japan, Korea, Malaysia, Philippines, Singapore, Taiwan, and Thailand.
All export figures refer to merchandise exports, which consist of manufactures, agricultural and livestock products, and other commodities. Except where otherwise noted, export figures are calculated based on the location of exporter, which is not necessarily the same as the location of producer.

THE IMPORTANCE OF ASIA TO INDIANA

Over the past several decades, growth in international trade has made the world's economies increasingly interdependent. During that period, trade with Asia has become an important component of U.S. economic growth. Today, exports to Asia account for 30 percent of all U.S. exports; agricultural exports to Asia constitute 40 percent of all U.S. agricultural exports. The Department of Agriculture estimates that in 1996, Indiana produced $2.1 billion in agricultural exports. And, like the U.S. as a whole, the Indiana economy has forged close ties with the economies of Asia. As a result, the financial crisis in Asia is likely to have a real impact on the lives of Indiana's residents and businesses.

- Indiana exported $1.7 billion of merchandise to Asia in 1996. These exports accounted for 14 percent of the state's total merchandise exports.

- Exports have been a key vehicle of growth for Indiana. Between 1993 and 1996, the state's exports to Asia increased by 72.6 percent.

A number of Indiana's important industries have a major stake in the health of Asian economies. The principal sectors that export to Asia include:

- The chemical products industry, which exported $458 million and accounted for 27.1 percent of the state's exports to Asia in 1996.

- The industrial machinery and computers sector, which is responsible for $424 million, or 25.1 percent, of Indiana's exports to Asia in 1996. The state's exports to Asia in this sector grew 119 percent between 1993 to 1996.

- The scientific and measuring instruments sector, which sent $190 million, and accounted for 11 percent of the state's 1996 Asian exports.

One important danger of the Asian financial crisis is the contagion effect — the possibility that the trouble could spread and other developing nations could face similar economic and financial difficulties. Such an event could have an even more significant impact on Indiana's economy.

- In 1996, Indiana exported $4.2 billion of merchandise to the world's developing nations. Exports to these countries accounted for 35.0 percent of the state's exports and 2.8 percent of the gross state product.

Sources: Department of Commerce, Department of Agriculture, Standard & Poor's
Note: Asia refers to China, Hong Kong, Indonesia, Japan, Korea, Malaysia, Philippines, Singapore, Taiwan, and Thailand.
All export figures refer to merchandise exports, which consist of manufactures, agricultural and livestock products, and other commodities. Except where otherwise noted, export figures are calculated based on the location of exporter, which is not necessarily the same as the location of producer.

THE IMPORTANCE OF ASIA TO KANSAS

Over the past several decades, growth in international trade has made the world's economies increasingly interdependent. During that period, trade with Asia has become an important component of U.S. economic growth. Today, exports to Asia account for 30 percent of all U.S. exports; agricultural exports to Asia constitute 40 percent of all U.S. agricultural exports. The Department of Agriculture estimates that in 1996, Kansas produced $3.1 billion in agricultural exports. And, like the U.S. as a whole, the economy of Kansas has forged close ties with the economies of Asia. As a result, the financial crisis in Asia is likely to have a real impact on the lives of Kansas's residents and businesses.

- Kansas exported $1.8 billion of merchandise to Asia in 1996. These exports accounted for 35.4 percent of the state's total merchandise exports.

- Exports have been a key vehicle of growth for Kansas. Between 1993 and 1996, the state's exports to Asia increased by 65.5 percent.

- Between 1993 and 1996, the state's exports to the Korea increased from $67.3 million to $239.3 million, an increase of 255.6 percent.

- Exports to Asia are an important component of Kansas' economy. In 1996, exports to Asia accounted for 2.6 percent of the state's gross state product.

A number of Kansas' important industries have a major stake in the health of Asian economies. The principal sectors that export to Asia include:

- The agricultural sector, which sent $753 million in merchandise to Asia, accounting for 42 percent of the state's exports to Asia in 1996.

- The food products sector, which in 1996 was responsible for $567 million, or 32 percent, of the exports Kansas sent to Asia in 1996.

- The transportation equipment sector, which sent goods worth $92 million to Asia and accounted for 5 percent of the state's Asian exports.

One important danger of the Asian financial crisis is the contagion effect — the possibility that the trouble could spread and other developing nations could face similar economic and financial difficulties. Such an event could have an even more significant impact on Kansas's economy.

- In 1996, Kansas exported $2.2 billion of merchandise to the world's developing nations. Exports to these countries accounted for 44.2 percent of the state's exports and 3.2 percent of Kansas's gross state product.

Sources: Department of Commerce, Department of Agriculture, Standard & Poor's
Note: Asia refers to China, Hong Kong, Indonesia, Japan, Korea, Malaysia, Philippines, Singapore, Taiwan, and Thailand.
All export figures refer to merchandise exports, which consist of manufactures, agricultural and livestock products, and other commodities. Except where otherwise noted, export figures are calculated based on the location of exporter, which is not necessarily the same as the location of producer.

THE IMPORTANCE OF ASIA TO KENTUCKY

Over the past several decades, growth in international trade has made the world's economies increasingly interdependent. During that period, trade with Asia has become an important component of U.S. economic growth. Today, exports to Asia account for 30 percent of all U.S. exports; agricultural exports to Asia constitute 40 percent of all U.S. agricultural exports. The Department of Agriculture estimates that in 1996, Kentucky produced $1.0 billion in agricultural exports. And, like the U.S. as a whole, the economy of Kentucky has forged close ties with the economies of Asia. As a result, the financial crisis in Asia is likely to have a real impact on the lives of Kentucky's residents and businesses.

- Kentucky exported $1.6 billion of merchandise to Asia in 1996. These exports accounted for 27.6 percent of the state's total merchandise exports.

- Exports have been a key vehicle of growth for Kentucky. Between 1993 and 1996, the state's exports to Asia increased by 50.7 percent.

- Most notably, between 1993 and 1996, the state's exports to Korea increased from $51 million to $116 million, a 129 percent increase.

A number of Kentucky 's important industries have a major stake in the health of Asian economies. The principal sectors that export to Asia include:

- The transportation equipment sector, which in 1996 was responsible for $222 million, or 13.8 percent of Kentucky's Asian exports.

- The primary metals industry, which in 1996 sent goods worth $103 million to Asia and accounted for 6 percent of the state's Asian exports.

One important danger of the Asian financial crisis is the contagion effect — the possibility that if proper action is not taken to stabilize the Asian economies, the trouble could spread and other developing nations could face similar economic and financial difficulties. Such an event could have a serious impact on Kentucky's economy.

Sources: Department of Commerce, Department of Agriculture, Standard & Poor's
Note: Asia refers to China, Hong Kong, Indonesia, Japan, Korea, Malaysia, Philippines, Singapore, Taiwan, and Thailand.
All export figures refer to merchandise exports, which consist of manufactures, agricultural and livestock products, and other commodities. Except where otherwise noted, export figures are calculated based on the location of exporter, which is not necessarily the same as the location of producer.

THE IMPORTANCE OF ASIA TO LOUISIANA

Over the past several decades, growth in international trade has made the world's economies increasingly interdependent. During that period, trade with Asia has become an important component of U.S. economic growth. Today, exports to Asia account for 30 percent of all U.S. exports; agricultural exports to Asia constitute 40 percent of all U.S. agricultural exports. Like the U.S. as a whole, the economy of Louisiana has forged close ties with the economies of Asia. As a result, the financial crisis in Asia is likely to have a real impact on the lives of Louisiana's residents and businesses.

- Louisiana exported $2.0 billion of merchandise to Asia in 1996. These exports accounted for 41.8 percent of the state's total merchandise exports.

- Exports have been a key vehicle of growth for Louisiana. Between 1993 and 1996, the state's exports to Asia increased by 65.9 percent. Most notably, between 1993 and 1996, Louisiana's exports to Korea grew from $57 million to $145 million, an increase of 153 percent.

A number of Louisiana's important industries have a major stake in the health of Asian economies. The principal sectors that export to Asia include:

- The agricultural sector, which sent $1.5 billion in merchandise and accounted for 78 percent of the state's exports to Asia in 1996.

- The chemical products sector, which in 1996 was responsible for $126 million, or 6 percent, of Louisiana's Asian exports.

- The industrial machinery and computers industry, which in 1996 sent goods worth $74 million to Asia and accounted for 4 percent of the state's exports to Asia in 1996.

One important danger of the Asian financial crisis is the contagion effect — the possibility that the trouble could spread and other developing nations could face similar economic and financial difficulties. Such an event could have an even more significant impact on Louisiana's economy.

Sources: Department of Commerce, Department of Agriculture, Standard & Poor's
Note: Asia refers to China, Hong Kong, Indonesia, Japan, Korea, Malaysia, Philippines, Singapore, Taiwan, and Thailand.
All export figures refer to merchandise exports, which consist of manufactures, agricultural and livestock products, and other commodities. Except where otherwise noted, export figures are calculated based on the location of exporter, which is not necessarily the same as the location of producer.
Louisiana's agricultural exports are large due to the fact that many agricultural exporters are located in the state.

THE IMPORTANCE OF ASIA TO MASSACHUSETTS

Over the past several decades, growth in international trade has made the world's economies increasingly interdependent. During that period, trade with Asia has become an important component of U.S. economic growth. Today, exports to Asia account for 30 percent of all U.S. exports; agricultural exports to Asia constitute 40 percent of all U.S. agricultural exports. Like the U.S. as a whole, the Massachusetts economy has forged close ties with the economies of Asia. As a result, the financial crisis in Asia is likely to have a real impact on the lives of Massachusetts's residents and businesses.

- Massachusetts exported $4.3 billion of merchandise to Asia in 1996. These exports accounted for 28.1 percent of the state's total merchandise exports.

- Exports have been a key vehicle of growth for Massachusetts. Between 1993 and 1996, the state's exports to Asia increased by 55.9 percent.

- Exports to Asia are an important component of Massachusetts's economy. In 1996, exports to Asia accounted for 2.1 percent of the state's gross state product.

- **Among the 50 states, Massachusetts ranks ninth in exports to Asia.**

A number of Massachusetts's important industries have a major stake in the health of Asian economies. The principal sectors that export to Asia include:

- The industrial machinery and computers industry, which exported $1.4 billion and accounted for 32.4 percent of the state's exports to Asia in 1996. Exports from Massachusetts to Asia in this sector increased 71.9 percent from 1993 to 1996.

- The electric and electronic equipment industry, which accounted for $1.1 billion, or 24.7 percent, of the state's exports to Asia.

- The scientific and measuring instrument sector exported $809 million and accounted for 19 percent of the state's Asian exports in 1996. This sector increased its Asian exports 60 percent from 1993 to 1996.

One important danger of the Asian financial crisis is the contagion effect — the possibility that the trouble could spread and other developing nations could face similar economic and financial difficulties. Such an event could have an even more significant impact on Massachusetts's economy.

Sources: Department of Commerce, Department of Agriculture, Standard & Poor's
Note: Asia refers to China, Hong Kong, Indonesia, Japan, Korea, Malaysia, Philippines, Singapore, Taiwan, and Thailand.
All export figures refer to merchandise exports, which consist of manufactures, agricultural and livestock products, and other commodities. Except where otherwise noted, export figures are calculated based on the location of exporter, which is not necessarily the same as the location of producer.

THE IMPORTANCE OF ASIA TO MARYLAND

Over the past several decades, growth in international trade has made the world's economies increasingly interdependent. During that period, trade with Asia has become an important component of U.S. economic growth. Today, exports to Asia account for 30 percent of all U.S. exports; agricultural exports to Asia constitute 40 percent of all U.S. agricultural exports. The Department of Agriculture estimates that in 1996, Maryland produced $247 million in agricultural exports. And, like the U.S. as a whole, the economy of Maryland has forged close ties with the economies of Asia. As a result, the financial crisis in Asia is likely to have a real impact on the lives of Maryland's residents and businesses.

- Maryland exported $663.8 million of merchandise to Asia in 1996. These exports accounted for 18.9 percent of the state's total merchandise exports.

- Exports have been a key vehicle of growth for Maryland. Between 1993 and 1996, the state's exports to Asia increased by 48.1 percent.

- Between 1993 and 1996, the state's exports to Indonesia increased from $7.0 million to $75.1 million.

- Exports from Maryland to Korea also experienced strong growth from 1993 to 1996, increasing from $44.2 million to $74.6 million.

A number of Maryland's important industries have a major stake in the health of Asian economies. The principal sectors that export to Asia include:

- The industrial machinery and computers industry, which in 1996 sent goods worth $165.2 million to Asia and accounted for 25 percent of the state's Asian exports.

- The electronic and electric equipment sector, which sent $135.1 million, or 20 percent, of Maryland's merchandise exports to Asia in 1996.

- The chemical products sector, which in 1996 exported $74.6 million and accounted for 11 percent of Maryland's Asian exports.

One important danger of the Asian financial crisis is the contagion effect — the possibility that the trouble could spread and other developing nations could face similar economic and financial difficulties. Such an event could have an even more significant impact on Maryland's economy.

- In 1996, Maryland exported $1.5 billion of merchandise to the world's developing nations. Exports to these countries accounted for 42.6 percent of the state's exports.

Sources: Department of Commerce, Department of Agriculture, Standard & Poor's
Note: Asia refers to China, Hong Kong, Indonesia, Japan, Korea, Malaysia, Philippines, Singapore, Taiwan, and Thailand.
All export figures refer to merchandise exports, which consist of manufactures, agricultural and livestock products, and other commodities. Except where otherwise noted, export figures are calculated based on the location of exporter, which is not necessarily the same as the location of producer.

THE IMPORTANCE OF ASIA TO MAINE

Over the past several decades, growth in international trade has made the world's economies increasingly interdependent. During that period, trade with Asia has become an important component of U.S. economic growth. Today, exports to Asia account for 30 percent of all U.S. exports; agricultural exports to Asia constitute 40 percent of all U.S. agricultural exports. Like the U.S. as a whole, the Maine economy has forged close ties with the economies of Asia. As a result, the financial crisis in Asia is likely to have a real impact on the lives of Maine's residents and businesses.

- Maine exported $431 million of merchandise to Asia in 1996. These exports accounted for 29.3 percent of the state's total merchandise exports.
- Exports have been a key vehicle of growth for Maine. Between 1993 and 1996, the state's exports to Asia increased by 7.8 percent; most notably, the state's exports to the Republic of Korea increased by 281.1 percent over that period.
- Exports to Asia are an important component of Maine's economy. In 1996, exports to Asia accounted for 1.5 percent of the state's gross state product.

A number of Maine's important industries have a major stake in the health of Asian economies. The principal sectors that export to Asia include:

- The electric and electronic equipment industry, which accounts for 41.2 percent of the state's exports to Asia.
- The paper products industry, which accounts for 25.7 percent of Maine's exports to Asia. The state's exports to Asia in this sector increased 287 percent from 1993-1996.
- The fish and other marine products sector, which was responsible for $37 million in exports to Asia in 1996 and accounted for 9 percent of the state's 1996 Asian exports.

One important danger of the Asian financial crisis is the contagion effect — the possibility that if proper action is not taken to stabilize the Asian economies, the trouble could spread and other developing nations could face similar economic and financial difficulties. Such an event could have a serious impact on Maine's economy.

Sources: Department of Commerce, Department of Agriculture, Standard & Poor's
Note: Asia refers to China, Hong Kong, Indonesia, Japan, Korea, Malaysia, Philippines, Singapore, Taiwan, and Thailand.
All export figures refer to merchandise exports, which consist of manufactures, agricultural and livestock products, and other commodities. Except where otherwise noted, export figures are calculated based on the location of exporter, which is not necessarily the same as the location of producer.

THE IMPORTANCE OF ASIA TO MICHIGAN

Over the past several decades, growth in international trade has made the world's economies increasingly interdependent. During that period, trade with Asia has become an important component of U.S. economic growth. Today, exports to Asia account for 30 percent of all U.S. exports; agricultural exports to Asia constitute 40 percent of all U.S. agricultural exports. The Department of Agriculture estimates that in 1996, Michigan produced $1.2 billion in agricultural exports. And, like the U.S. as a whole, the Michigan economy has forged close ties with the economies of Asia. As a result, the financial crisis in Asia is likely to have a real impact on the lives of Michigan's residents and businesses.

- Michigan exported $3.3 billion of merchandise to Asia in 1996. These exports accounted for 8.7 percent of the state's total merchandise exports.
- Exports have been a key vehicle of growth for Michigan. Between 1993 and 1996, the state's exports to Asia increased by 45.3 percent.
- Most notably, exports from Michigan to Korea increased 148 percent, from $176 million to $436 million, between 1993 and 1996.
- Also of note, state exports to Indonesia increased by 247 percent, from $10 million to $36 million, between 1993 and 1996.
- **Among the 50 states, Michigan ranks 14th in exports to Asia.**

A number of Michigan's important industries have a major stake in the health of Asian economies. The principal sectors that export to Asia include:

- The transportation equipment sector, which accounted for $1.3 billion, or 37.3 percent, of the state's exports to Asia in 1996.
- The industrial machinery and computers industry, which exported $519 million and accounted for 15.7 percent of Michigan's 1996 Asian exports.
- The chemical products industry, which accounted for $448 million, or 13.6 percent, of the state's exports to Asia in 1996. Michigan's Asian exports in this sector increased 86 percent from 1993 to 1996.

One important danger of the Asian financial crisis is the contagion effect — the possibility that the trouble could spread and other developing nations could face similar economic and financial difficulties. Such an event could have an even more significant impact on Michigan's economy.

- In 1996, Michigan exported $9.4 billion of merchandise to the world's developing nations. Exports to these countries accounted for 24.6 percent of the state's exports and 3.5 percent of the gross state product.

Sources: Department of Commerce, Department of Agriculture, Standard & Poor's
Note: Asia refers to China, Hong Kong, Indonesia, Japan, Korea, Malaysia, Philippines, Singapore, Taiwan, and Thailand.
All export figures refer to merchandise exports, which consist of manufactures, agricultural and livestock products, and other commodities. Except where otherwise noted, export figures are calculated based on the location of exporter, which is not necessarily the same as the location of producer.

THE IMPORTANCE OF ASIA TO MINNESOTA

Over the past several decades, growth in international trade has made the world's economies increasingly interdependent. During that period, trade with Asia has become an important component of U.S. economic growth. Today, exports to Asia account for 30 percent of all U.S. exports; agricultural exports to Asia constitute 40 percent of all U.S. agricultural exports. The Department of Agriculture estimates that in 1996, Minnesota produced $3.0 billion in agricultural exports. And, like the U.S. as a whole, the economy of Minnesota has forged close ties with the economies of Asia. As a result, the financial crisis in Asia is likely to have a real impact on the lives of Minnesota's residents and businesses.

- Minnesota exported $3.1 billion of merchandise to Asia in 1996. These exports accounted for 22.5 percent of the state's total merchandise exports.
- Exports to Asia are an important component of Minnesota's economy. In 1996, exports to the region accounted for 2.2 percent of the state's gross state product.
- Exports have been a key vehicle of growth for Minnesota. Between 1993 and 1996, the state's exports to Asia increased by 43.0 percent.
- Notably, exports to Korea, which accounted for 16 percent of the state's Asian exports in 1996, rose from $189 million to $488 million from 1993 to 1996, an increase of 160 percent.
- **Among the 50 states, Minnesota ranks 15th in exports to Asia.**

A number of Minnesota's important industries have a major stake in the health of Asian economies. The principal sectors that export to Asia include:

- The agricultural sector, which in 1996 sent goods worth $1.3 billion to Asia and accounted for 42 percent of the state's Asian exports.
- The industrial machinery and computers sector, which sent $571 million, or 18 percent, of Minnesota's exports to Asia in 1996.
- The scientific and measuring instruments industry, which in 1996 was responsible for $381 million and accounted for 12 percent of Minnesota's Asian exports.

One important danger of the Asian financial crisis is the contagion effect — the possibility that the trouble could spread and other developing nations could face similar economic and financial difficulties. Such an event could have an even more significant impact on Minnesota's economy.

- In 1996, Minnesota exported $5.1 billion of merchandise to the world's developing nations. Exports to these countries accounted for 36.9 percent of the state's exports and 3.6 percent of the gross state product.

Sources: Department of Commerce, Department of Agriculture, Standard & Poor's
Note: Asia refers to China, Hong Kong, Indonesia, Japan, Korea, Malaysia, Philippines, Singapore, Taiwan, and Thailand.
All export figures refer to merchandise exports, which consist of manufactures, agricultural and livestock products, and other commodities. Except where otherwise noted, export figures are calculated based on the location of exporter, which is not necessarily the same as the location of producer.

THE IMPORTANCE OF ASIA TO MISSOURI

Over the past several decades, growth in international trade has made the world's economies increasingly interdependent. During that period, trade with Asia has become an important component of U.S. economic growth. Today, exports to Asia account for 30 percent of all U.S. exports; agricultural exports to Asia constitute 40 percent of all U.S. agricultural exports. The Department of Agriculture estimates that in 1996, Missouri produced $1.3 billion in agricultural exports. And, like the U.S. as a whole, the Missouri economy has forged close ties with the economies of Asia. As a result, the financial crisis in Asia is likely to have a real impact on the lives of Missouri's residents and businesses.

- Missouri exported $1.2 billion of merchandise to Asia in 1996. These exports account for 17.5 percent of the state's total merchandise exports.

- Exports have been a key vehicle of growth for Missouri. Between 1993 and 1996, the state's exports to Asia increased by 42.8 percent; most notably, state exports to Indonesia increased 154.5 percent during this time.

A number of Missouri's important industries have a major stake in the health of Asian economies. The principal sectors that export to Asia include:

- The chemical products industry, which exported $270 million and was responsible for 23.5 percent of the state's exports to Asia in 1996.

- The electric and electronic equipment industry, which was responsible for $166 million, or 14.5 percent, of Missouri's 1996 Asian exports.

- The agricultural sector, which exported $122 million and accounted for 10.6 percent of the state's exports to Asia in 1996. Missouri's Asian exports in this sector grew 390 percent between 1993 and 1996.

- The industrial machinery and computers industry, which accounted for $115 million, or 10 percent, of the state's exports to Asia.

One important danger of the Asian financial crisis is the contagion effect — the possibility that the trouble could spread and other developing nations could face similar economic and financial difficulties. Such an event could have a serious impact on Missouri's economy.

- In 1996, Missouri exported $3.3 billion of merchandise to the world's developing nations. Exports to these countries accounted for 49.5 percent of the state's exports and 2.3 percent of the gross state product.

Sources: Department of Commerce, Department of Agriculture, Standard & Poor's
Note: Asia refers to China, Hong Kong, Indonesia, Japan, Korea, Malaysia, Philippines, Singapore, Taiwan, and Thailand.
All export figures refer to merchandise exports, which consist of manufactures, agricultural and livestock products, and other commodities. Except where otherwise noted, export figures are calculated based on the location of exporter, which is not necessarily the same as the location of producer.

THE IMPORTANCE OF ASIA TO MISSISSIPPI

Over the past several decades, growth in international trade has made the world's economies increasingly interdependent. During that period, trade with Asia has become an important component of U.S. economic growth. Today, exports to Asia account for 30 percent of all U.S. exports. And, like the U.S. as a whole, the economy of Mississippi has forged close ties with the economies of Asia. As a result, the financial crisis in Asia is likely to have a real impact on the lives of Mississippi's residents and businesses.

- Agricultural exports to Asia constitute 40 percent of all U.S. agricultural exports. The Department of Agriculture estimates that in 1996, Mississippi produced $815 million in agricultural exports.

- Exports have been a key vehicle of growth for Mississippi. Between 1993 and 1996, the state's exports to Asia increased by 63.9 percent.

A number of Mississippi's important industries have a major stake in the health of Asian economies. The principal sectors that export to Asia include:

- The food products industry, which in 1996 sent goods worth $19 million to Asia, accounts for 15 percent of the state's Asian exports.

- The fabricated metal products sector, which in 1996 was responsible for $16 million and accounted for 13 percent of Mississippi's Asian exports.

One important danger of the Asian financial crisis is the contagion effect — the possibility that the trouble could spread and other developing nations could face similar economic and financial difficulties. Such an event could have an even more significant impact on Mississippi's economy.

- In 1996, Mississippi exported $559 million of merchandise to the world's developing nations. Exports to these countries accounted for 45.8 percent of the state's exports.

Sources: Department of Commerce, Department of Agriculture, Standard & Poor's
Note: Asia refers to China, Hong Kong, Indonesia, Japan, Korea, Malaysia, Philippines, Singapore, Taiwan, and Thailand.
All export figures refer to merchandise exports, which consist of manufactures, agricultural and livestock products, and other commodities. Except where otherwise noted, export figures are calculated based on the location of exporter, which is not necessarily the same as the location of producer.

THE IMPORTANCE OF ASIA TO MONTANA

Over the past several decades, growth in international trade has made the world's economies increasingly interdependent. During that period, trade with Asia has become an important component of U.S. economic growth. Today, exports to Asia account for 30 percent of all U.S. exports. And, like the U.S. as a whole, the economy of Montana has forged close ties with the economies of Asia. As a result, the financial crisis in Asia is likely to have a real impact on the lives of Montana's residents and businesses.

- Agricultural exports to Asia constitute 40 percent of all U.S. agricultural exports. The Department of Agriculture estimates that in 1996, Montana produced $850 million in agricultural exports.

- Exports have been a key vehicle of growth for Montana. Between 1993 and 1996, the state's exports to Asia increased by 77 percent.

A number of Montana's important industries have a major stake in the health of Asian economies:

- The industrial machines and computer sector exported $17 .5 million in 1996 and accounts for 53.3 percent of the state's Asian exports. This sector increased its exports to Asia by 160 percent between 1993 and 1996.

- Montana's scientific and measuring instruments sector exported $3.0 million to Asia in 1996 and accounted for 9 percent of the state's exports to the region.

One important danger of the Asian financial crisis is the contagion effect — the possibility that the trouble could spread and other developing nations could face similar economic and financial difficulties. Such an event could have an even more significant impact on Montana's economy.

- In 1996, Montana exported $66 million of merchandise to the world's developing nations. Exports to these countries accounted for 19.4 percent of the state's exports.

Sources: Department of Commerce, Department of Agriculture, Standard & Poor's
Note: Asia refers to China, Hong Kong, Indonesia, Japan, Korea, Malaysia, Philippines, Singapore, Taiwan, and Thailand.
All export figures refer to merchandise exports, which consist of manufactures, agricultural and livestock products, and other commodities. Except where otherwise noted, export figures are calculated based on the location of exporter, which is not necessarily the same as the location of producer.

THE IMPORTANCE OF ASIA TO NORTH CAROLINA

Over the past several decades, growth in international trade has made the world's economies increasingly interdependent. During that period, trade with Asia has become an important component of U.S. economic growth. Today, exports to Asia account for 30 percent of all U.S. exports; agricultural exports to Asia constitute 40 percent of all U.S. agricultural exports. The Department of Agriculture estimates that in 1996, North Carolina produced $1.4 billion in agricultural exports. And, like the U.S. as a whole, the North Carolina economy has forged close ties with the economies of Asia. As a result, the financial crisis in Asia is likely to have a real impact on the lives of North Carolina's residents and businesses.

- North Carolina exported $2.0 billion of merchandise to Asia in 1996. These exports accounted for 17.1 percent of the state's total merchandise exports.

- Exports have been a key vehicle of growth for North Carolina. Between 1993 and 1996, the state's exports to Asia increased by 26.4 percent.

- Between 1993 and 1996, the state's exports to Korea increased from $114.6 million to $201.9 million, an increase of 76.2 percent.

A number of North Carolina's important industries have a major stake in the health of Asian economies. The state's principal sectors that export to Asia include:

- The agricultural sector, which exported $335.7 million of merchandise to Asia, accounting for 17 percent of the state's Asian exports in 1996.

- The chemical products sector, which in 1996 sent $289.9 million of merchandise to the region. This sector accounted for 14 percent of the state's Asian exports in 1996.

- The industrial machinery and computer industries, which was responsible for $283.6 million, or 14 percent, of North Carolina's Asian exports in 1996.

One important danger of the Asian financial crisis is the contagion effect — the possibility that the trouble could spread and other developing nations could face similar economic and financial difficulties. Such an event could have an even more significant impact on North Carolina's economy.

- In 1996, North Carolina exported $4.1 billion of merchandise to the world's developing nations. Exports to these countries accounted for 35.7 percent of the state's exports and 2.0 percent of North Carolina's gross state product.

Sources: Department of Commerce, Department of Agriculture, Standard & Poor's
Note: Asia refers to China, Hong Kong, Indonesia, Japan, Korea, Malaysia, Philippines, Singapore, Taiwan, and Thailand.
All export figures refer to merchandise exports, which consist of manufactures, agricultural and livestock products, and other commodities. Except where otherwise noted, export figures are calculated based on the location of exporter, which is not necessarily the same as the location of producer.

THE IMPORTANCE OF ASIA TO NORTH DAKOTA

Over the past several decades, growth in international trade has made the world's economies increasingly interdependent. During that period, trade with Asia has become an important component of U.S. economic growth. Today, exports to Asia account for 30 percent of all U.S. exports. And, like the U.S. as a whole, the North Dakota economy has been forging closer ties with the economies of Asia. As a result, the financial crisis in Asia is likely to have a real impact on the lives of North Dakota's residents and businesses.

- Agricultural exports to Asia constitute 40 percent of all U.S. agricultural exports. In 1996, North Dakota produced an estimated $1.7 billion in agricultural exports.
- Exports have been a key vehicle of growth for North Dakota. Between 1993 and 1996, the state's exports to Asia increased by 110 percent.

North Dakota businesses sell a wide range of products to Asia and therefore have a major stake in the health of Asian economies. The state's principal sectors that export to Asia include:

- The industrial machinery and computers industry, which exported $15 million and accounted for 57 percent of the state's 1996 exports to Asia.
- The primary metals industry, which was responsible for $3.5 million, or 13 percent, of North Dakota's Asian exports in 1996.
- The food products sector accounted for $2.2 million, or 8 percent, of the state's 1996 Asian exports.

One important danger of the Asian financial crisis is the contagion effect — the possibility that the trouble could spread and other developing nations could face similar economic and financial difficulties. Such an event could have an even more significant impact on North Dakota.

Sources: Department of Commerce, Department of Agriculture, Standard & Poor's
Note: Asia refers to China, Hong Kong, Indonesia, Japan, Korea, Malaysia, Philippines, Singapore, Taiwan, and Thailand.
All export figures refer to merchandise exports, which consist of manufactures, agricultural and livestock products, and other commodities. Except where otherwise noted, export figures are calculated based on the location of exporter, which is not necessarily the same as the location of producer.

THE IMPORTANCE OF ASIA TO NEBRASKA

Over the past several decades, growth in international trade has made the world's economies increasingly interdependent. During that period, trade with Asia has become an important component of U.S. economic growth. Today, exports to Asia account for 30 percent of all U.S. exports; agricultural exports to Asia constitute 40 percent of all U.S. agricultural exports. The Department of Agriculture estimates that in 1996, Nebraska produced $3.5 billion in agricultural exports. And, like the U.S. as a whole, the Nebraska economy has forged close ties with the economies of Asia. As a result, the financial crisis in Asia is likely to have a real impact on the lives of Nebraska's residents and businesses.

- Nebraska exported $1.4 billion of merchandise to Asia in 1996. These exports account for 55.7 percent of the state's total merchandise exports.

- Exports have been a key vehicle of growth for Nebraska. Between 1993 and 1996, the state's exports to Asia increased by 27.1 percent.

- Most notably, state exports to the Philippines increased by 571 percent between 1993 and 1996; to Indonesia, by 280 percent; and to Thailand, by 150 percent.

- Exports to Asia are an important component of Nebraska's economy. In 1996, exports to Asia accounted for 3.0 percent of the state's gross state product.

Nebraska businesses sell a wide range of products to Asia and therefore have a major stake in the health of Asian economies. The state's principal sectors that export to Asia include:

- The food products industry, which accounts for 85.6 percent of the state's exports to Asia.

- The leather products industry, which is responsible for 3.8 percent of Nebraska's Asian exports.

One important danger of the Asian financial crisis is the contagion effect — the possibility that the trouble could spread and other developing nations could face similar economic and financial difficulties. Such an event could have an even more significant impact on Nebraska.

Sources: Department of Commerce, Department of Agriculture, Standard & Poor's
Note: Asia refers to China, Hong Kong, Indonesia, Japan, Korea, Malaysia, Philippines, Singapore, Taiwan, and Thailand.
All export figures refer to merchandise exports, which consist of manufactures, agricultural and livestock products, and other commodities. Except where otherwise noted, export figures are calculated based on the location of exporter, which is not necessarily the same as the location of producer.

THE IMPORTANCE OF ASIA TO NEW HAMPSHIRE

Over the past several decades, growth in international trade has made the world's economies increasingly interdependent. During that period, trade with Asia has become an important component of U.S. economic growth. Today, exports to Asia account for 30 percent of all U.S. exports; agricultural exports to Asia constitute 40 percent of all U.S. agricultural exports. Like the U.S. as a whole, the New Hampshire economy has forged close ties with the economies of Asia. As a result, the financial crisis in Asia is likely to have a real impact on the lives of New Hampshire's residents and businesses.

- New Hampshire exported $345 million of merchandise to Asia in 1996. These exports accounted for 19.8 percent of the state's total merchandise exports.

- Exports have been a key vehicle of growth for New Hampshire. Between 1993 and 1996, the state's exports to Asia increased by 89.5 percent; most notably, state exports to Thailand increased by 751 percent over that period, from $4.3 million to $36.4 million.

A number of New Hampshire's important industries have a major stake in the health of Asian economies. The state's principal sectors that export to Asia include:

- The industrial machinery and computers industry, which accounted for $97.6 million, or 28.3 percent, of the state's exports to Asia in 1996.

- The leather products industry, which exported $72.5 million, accounting for 21 percent of New Hampshire's exports to Asia. This sector has seen tremendous growth between 1993 and 1996, with an increase of over 3000 percent during that time period.

- The scientific and measuring instruments sector sent $46.7 million worth of exports to Asia in 1996, accounting for 14 percent of the state's 1996 Asian exports.

One important danger of the Asian financial crisis is the contagion effect — the possibility that the trouble could spread and other developing nations could face similar economic and financial difficulties. Such an event could have an even more significant impact on New Hampshire's economy.

- In 1996, New Hampshire exported $477 million of merchandise to the world's developing nations. Exports to these countries accounted for 27 percent of the state's exports.

Sources: Department of Commerce, Department of Agriculture, Standard & Poor's
Note: Asia refers to China, Hong Kong, Indonesia, Japan, Korea, Malaysia, Philippines, Singapore, Taiwan, and Thailand.
All export figures refer to merchandise exports, which consist of manufactures, agricultural and livestock products, and other commodities. Except where otherwise noted, export figures are calculated based on the location of exporter, which is not necessarily the same as the location of producer.

THE IMPORTANCE OF ASIA TO NEW JERSEY

Over the past several decades, growth in international trade has made the world's economies increasingly interdependent. During that period, trade with Asia has become an important component of U.S. economic growth. Today, exports to Asia account for 30 percent of all U.S. exports; agricultural exports to Asia constitute 40 percent of all U.S. agricultural exports. Like the U.S. as a whole, the New Jersey economy has forged close ties with the economies of Asia. As a result, the financial crisis in Asia is likely to have a real impact on the lives of New Jersey's residents and businesses.

- New Jersey exported $4.9 billion of merchandise to Asia in 1996. These exports accounted for 26.3 percent of the state's total merchandise exports.

- Exports have been a key vehicle of growth for New Jersey. Between 1993 and 1996, the state's exports to Asia increased by 35 percent.

- Most notably, Korea, which receives 26 percent of the state's Asian exports, experienced a 39 percent increase in exports from the state between 1993 and 1996, from $918 million to $1.3 billion. Over the same period, New Jersey's exports to Indonesia increased by 116 percent, from $64 million to $138 million.

- **New Jersey ranks seventh among the 50 states in exports to Asia.**

A number of New Jersey's important industries have a major stake in the health of Asian economies. The state's principal sectors that export to Asia include:

- The electric and electronic equipment industry, which accounted for $1.1 billion, or 22.7 percent, of the state's exports to Asia in 1996.

- The chemical products industry, which exported $944 million and was responsible for 19.4 percent of the merchandise that New Jersey sent to Asia in 1996.

- The industrial machinery and computers sector, which accounted for $594 million, or 12.2 percent, of the state's 1996 exports to Asia.

One important danger of the Asian financial crisis is the contagion effect — the possibility that the trouble could spread and other developing nations could face similar economic and financial difficulties. Such an event could have an even more significant impact on New Jersey's economy.

- In 1996, New Jersey exported $7.8 billion of merchandise to the world's developing nations. Exports to these countries accounted for 43 percent of the state's exports and 2.8 percent of its gross state product.

Sources: Department of Commerce, Department of Agriculture, Standard & Poor's
Note: Asia refers to China, Hong Kong, Indonesia, Japan, Korea, Malaysia, Philippines, Singapore, Taiwan, and Thailand.
All export figures refer to merchandise exports, which consist of manufactures, agricultural and livestock products, and other commodities. Except where otherwise noted, export figures are calculated based on the location of exporter, which is not necessarily the same as the location of producer.

THE IMPORTANCE OF ASIA TO NEW MEXICO

Over the past several decades, growth in international trade has made the world's economies increasingly interdependent. During that period, trade with Asia has become an important component of U.S. economic growth. Today, exports to Asia account for 30 percent of all U.S. exports; agricultural exports to Asia constitute 40 percent of all U.S. agricultural exports. Like the U.S. as a whole, the economy of New Mexico has forged close ties with the economies of Asia. As a result, the financial crisis in Asia is likely to have a real impact on the lives of New Mexico's residents and businesses.

- New Mexico exported $631 million of merchandise to Asia in 1996. These exports accounted for 69 percent of the state's total merchandise exports.

- Exports have been a key vehicle of growth in New Mexico. Between 1993 and 1996, the state's exports to Asia increased by 365 percent.

- Most notably, exports to Korea increased 229 percent, from $56 million to $194 million, between 1993 and 1996. The Korean market accounts for 29 percent of New Mexico's exports to Asia.

A number of New Mexico's important industries have a major stake in the health of Asian economies:

- By far, the state's largest exporter to Asia is the electric and electronic equipment sector, which accounted for $593 million, or 94 percent, of New Mexico's Asian exports. This sector has also seen a tremendous increase in its exports to Asia in recent years. Between 1993 and 1996, electric and electronic equipment exports from New Mexico to Asia increased 570 percent.

One important danger of the Asian financial crisis is the contagion effect — the possibility that the trouble could spread and other developing nations could face similar economic and financial difficulties. Such an event could have an even more significant impact on New Mexico's economy.

- In 1996, New Mexico exported $709 million of merchandise to the world's developing nations. Exports to these countries accounted for 77 percent of the state's total exports.

Sources: Department of Commerce, Department of Agriculture, Standard & Poor's
Note: Asia refers to China, Hong Kong, Indonesia, Japan, Korea, Malaysia, Philippines, Singapore, Taiwan, and Thailand.
All export figures refer to merchandise exports, which consist of manufactures, agricultural and livestock products, and other commodities. Except where otherwise noted, export figures are calculated based on the location of exporter, which is not necessarily the same as the location of producer.

THE IMPORTANCE OF ASIA TO NEVADA

Over the past several decades, growth in international trade has made the world's economies increasingly interdependent. During that period, trade with Asia has become an important component of U.S. economic growth. Today, exports to Asia account for 30 percent of all U.S. exports; agricultural exports to Asia constitute 40 percent of all U.S. agricultural exports. Like the U.S. as a whole, the economy of Nevada has forged close ties with the economies of Asia. As a result, the financial crisis in Asia is likely to have a real impact on the lives of Nevada's residents and businesses.

- Nevada exported $177 million in merchandise to Asia in 1996. These exports accounted for 26 percent of the state's total merchandise exports.

- Exports are an important vehicle of growth for Nevada. Between 1993 and 1996, the state's exports to Asia increased by 114 percent. Most notably, exports to Korea increased 234 percent between 1993 and 1996, reaching $24.7 million in 1996.

A number of Nevada's important industries have a major stake in the health of Asian economies:

- The industrial machines and computers sector accounts for the largest share of Asian exports, with $31 million, or 18 percent, of the goods that Nevada ships to the region.

- The electric and electronic equipment sector, as well as the scientific and measuring instruments sector, each exported over $21 million in merchandise to Asia in 1996. Each sector accounts for roughly 12 percent of Nevada's exports to the region.

- Asian exports in the food products sector, which comprises 5 percent of Nevada's Asian exports, increased over 1900 percent, from $440,000 to $8.9 million, between 1993 and 1996.

One important danger of the Asian financial crisis is the contagion effect — the possibility that the trouble could spread and other developing nations could face similar economic and financial difficulties. Such an event could have an even more significant impact on Nevada's economy.

- In 1996, Nevada exported $185 million of merchandise to the world's developing nations. Exports to these countries accounted for 27 percent of the state's total exports.

Sources: Department of Commerce, Department of Agriculture, Standard & Poor's
Note: Asia refers to China, Hong Kong, Indonesia, Japan, Korea, Malaysia, Philippines, Singapore, Taiwan, and Thailand.
All export figures refer to merchandise exports, which consist of manufactures, agricultural and livestock products, and other commodities. Except where otherwise noted, export figures are calculated based on the location of exporter, which is not necessarily the same as the location of producer.

THE IMPORTANCE OF ASIA TO NEW YORK

Over the past several decades, growth in international trade has made the world's economies increasingly interdependent. During that period, trade with Asia has become an important component of U.S. economic growth. Today, exports to Asia account for 30 percent of all U.S. exports; agricultural exports to Asia constitute 40 percent of all U.S. agricultural exports. And, like the U.S. as a whole, the New York economy has forged close ties with the economies of Asia. As a result, the financial crisis in Asia is likely to have a real impact on the lives of New York's residents and businesses.

- **Among the 50 states, New York is the third largest exporter to Asia.**

- New York exported $12.2 billion of merchandise to Asia in 1996. These exports accounted for 27 percent of the state's total merchandise exports.

- Exports have been a key vehicle of growth for New York. Between 1993 and 1996, the state's exports to Asia increased by 17 percent.

- Exports to Asia are an important component of New York's economy. In 1996, exports to Asia accounted for 2.0 percent of the New York's gross state product.

A number of New York's important industries have a major stake in the health of Asian economies. The state's principal sectors that export to Asia include:

- The industrial machinery and computers industry, which sent $2.0 billion in exports to Asia in 1996, accounting for 17 percent of the state's exports to Asia.

- The agricultural sector was responsible for $1.5 billion, or 12.2 percent, of the goods exported from New York to Asia in 1996. Between 1993 and 1996, the state's exports to Asia in this sector increased 66 percent.

- The chemical products sector, which sent $1.4 billion in exports to Asia in 1996, accounted for 12 percent of the state's Asian exports.

One important danger of the Asian financial crisis is the contagion effect — the possibility that the trouble could spread and other developing nations could face similar economic and financial difficulties. Such an event could have an even more significant impact on New York's economy.

- In 1996, New York exported $16.1 billion of merchandise to the world's developing nations. Exports to these countries accounted for 36 percent of the state's exports and 2.6 percent of the gross state product.

Sources: Department of Commerce, Department of Agriculture, Standard & Poor's
Note: Asia refers to China, Hong Kong, Indonesia, Japan, Korea, Malaysia, Philippines, Singapore, Taiwan, and Thailand.
All export figures refer to merchandise exports, which consist of manufactures, agricultural and livestock products, and other commodities. Except where otherwise noted, export figures are calculated based on the location of exporter, which is not necessarily the same as the location of producer.

THE IMPORTANCE OF ASIA TO OHIO

Over the past several decades, growth in international trade has made the world's economies increasingly interdependent. During that period, trade with Asia has become an important component of U.S. economic growth. Today, exports to Asia account for 30 percent of all U.S. exports; agricultural exports to Asia constitute 40 percent of all U.S. agricultural exports. The Department of Agriculture estimates that in 1996, Ohio produced $1.6 billion in agricultural exports. And, like the U.S. as a whole, the Ohio economy has forged close ties with the economies of Asia. As a result, the financial crisis in Asia is likely to have a real impact on the lives of Ohio's residents and businesses.

- Ohio exported $3.9 billion of merchandise to Asia in 1996. These exports accounted for 17.4 percent of the state's total merchandise exports.

- Exports have been a key vehicle of growth for Ohio. Between 1993 and 1996, the state's exports to Asia increased by 65 percent. Most notably, exports to Korea increased from $315 million to $772 million, a 145 percent increase, between 1993 and 1996. In addition, exports to Indonesia increased from $43 million to $94 million over the same period.

- **Among the 50 states, Ohio ranks 12th in exports to Asia.**

A number of Ohio's important industries have a major stake in the health of Asian economies. The state's principal sectors that export to Asia include:

- The industrial machinery and computers industry, which accounted for $992 million, or 25.3 percent, of the state's exports to Asia in 1996.

- The chemical products industry, which was responsible for $684 million of Ohio's 1996 Asian exports. This sector accounts for over 17 percent of the state's exports to the region.

- The electric and electronic equipment industry, which accounted for $404 million, or 10.3 percent, of the state's exports to Asia in 1996.

One important danger of the Asian financial crisis is the contagion effect — the possibility that the trouble could spread and other developing nations could face similar economic and financial difficulties. Such an event could have an even more significant impact on Ohio's economy.

- In 1996, Ohio exported $6.0 billion of merchandise to the world's developing nations. Exports to these countries accounted for 26 percent of the state's exports and 2.0 percent of its gross state product.

Sources: Department of Commerce, Department of Agriculture, Standard & Poor's
Note: Asia refers to China, Hong Kong, Indonesia, Japan, Korea, Malaysia, Philippines, Singapore, Taiwan, and Thailand.
All export figures refer to merchandise exports, which consist of manufactures, agricultural and livestock products, and other commodities. Except where otherwise noted, export figures are calculated based on the location of exporter, which is not necessarily the same as the location of producer.

THE IMPORTANCE OF ASIA TO OKLAHOMA

Over the past several decades, growth in international trade has made the world's economies increasingly interdependent. During that period, trade with Asia has become an important component of U.S. economic growth. Today, exports to Asia account for 30 percent of all U.S. exports. And, like the U.S. as a whole, the economy of Oklahoma has forged close ties with the economies of Asia. As a result, the financial crisis in Asia is likely to have a real impact on the lives of Oklahoma's residents and businesses.

- Oklahoma exported $474 million of merchandise to Asia in 1996. These exports accounted for 18.7 percent of the state's total merchandise exports.

- Agricultural exports to Asia constitute 40 percent of all U.S. agricultural exports. The Department of Agriculture estimates that in 1996, Oklahoma produced an estimated $475 million in agricultural exports.

- Exports have been a key vehicle of growth for Oklahoma. Between 1993 and 1996, the state's exports to Asia increased by 25.6 percent.

Oklahoma businesses sell a wide range of products to Asia and therefore have a major stake in the health of Asian economies. The state's sectors that export to Asia include:

- The industrial machinery and computers sector, which in 1996 sent goods worth $109 million to Asia. This sector accounted for 23 percent of the state's exports to Asia.

- The transportation industry sector, which sent $54 million, or 11 percent, of the state's Asian exports in 1996.

- The refined petroleum products sector, which in 1996 exported $53 million and accounted for 11 percent of Oklahoma's Asian exports.

One important danger of the Asian financial crisis is the contagion effect — the possibility that the trouble could spread and other developing nations could face similar economic and financial difficulties. Such an event could have an even more significant impact on Oklahoma's economy.

- In 1996, Oklahoma exported $1.2 billion of merchandise to the world's developing nations. Exports to these countries accounted for 46 percent of the state's exports.

Sources: Department of Commerce, Department of Agriculture, Standard & Poor's
Note: Asia refers to China, Hong Kong, Indonesia, Japan, Korea, Malaysia, Philippines, Singapore, Taiwan, and Thailand.
All export figures refer to merchandise exports, which consist of manufactures, agricultural and livestock products, and other commodities. Except where otherwise noted, export figures are calculated based on the location of exporter, which is not necessarily the same as the location of producer.

THE IMPORTANCE OF ASIA TO OREGON

Over the past several decades, growth in international trade has made the world's economies increasingly interdependent. During that period, trade with Asia has become an important component of U.S. economic growth. Today, exports to Asia account for 30 percent of all U.S. exports; agricultural exports to Asia constitute 40 percent of all U.S. agricultural exports. Like the U.S. as a whole, the economy of Oregon has forged close ties with the economies of Asia. As a result, the financial crisis in Asia is likely to have a real impact on the lives of Oregon's residents and businesses.

- Oregon exported $5.4 billion in merchandise to Asia in 1996. These exports accounted for 64 percent of the state's total merchandise exports.
- Exports to Asia are an important component of Oregon economy. In 1996, Oregon's Asian exports accounted for 6.3 percent of the state's gross state product.
- Exports have been a key vehicle of growth for Oregon. Between 1993 and 1996, the state's exports to Asia increased by 65 percent.
- Most notably, exports to Korea, which received 17 percent of Oregon's Asian exports in 1996, increased from $428 million to $905 million between 1993 and 1996.
- **Among the nation's 50 states, Oregon is the sixth largest exporter to Asia.**

A number of Oregon's important industries have a major stake in the health of Asian economies:

- The agricultural sector accounted for $2.7 billion, or 50 percent, of Oregon's Asian exports in 1996.
- The electric and electronic equipment sector is responsible for $1.1 billion of the state's 1996 exports to Asia. Exports from this sector, which account for 22 percent of Oregon's Asian exports, increased from $416 million to $1.2 billion, 186 percent, between 1993 and 1996.
- The industrial machines and computers sector sent $505 million in exports to Asia in 1996. These exports accounted for 9 percent of the state's Asian exports. This sector increased its Asian exports from $246 million to $505 million, a 105 percent increase, between 1993 and 1996.

One important danger of the Asian financial crisis is the contagion effect — the possibility that the trouble could spread and other developing nations could face similar economic and financial difficulties. Such an event could have an even more significant impact on Oregon's economy.

Sources: Department of Commerce, Department of Agriculture, Standard & Poor's
Note: Asia refers to China, Hong Kong, Indonesia, Japan, Korea, Malaysia, Philippines, Singapore, Taiwan, and Thailand.
All export figures refer to merchandise exports, which consist of manufactures, agricultural and livestock products, and other commodities. Except where otherwise noted, export figures are calculated based on the location of exporter, which is not necessarily the same as the location of producer.

THE IMPORTANCE OF ASIA TO PENNSYLVANIA

Over the past several decades, growth in international trade has made the world's economies increasingly interdependent. During that period, trade with Asia has become an important component of U.S. economic growth. Today, exports to Asia account for 30 percent of all U.S. exports; agricultural exports to Asia constitute 40 percent of all U.S. agricultural exports. The Department of Agriculture estimates that in 1996, Pennsylvania produced $557 million in agricultural exports. And, like the U.S. as a whole, the Pennsylvania economy has forged close ties with the economies of Asia. As a result, the financial crisis in Asia is likely to have a real impact on the lives of Pennsylvania's residents and businesses.

- Pennsylvania exported $4.0 billion of merchandise to Asia in 1996. These exports accounted for 23 percent of the state's total merchandise exports.

- Exports have been a key vehicle of growth for Pennsylvania. Between 1993 and 1996, the state's exports to Asia increased by 29 percent; most notably, state exports to Indonesia increased from $47 million to $122 million from 1993 to 1996, an increase of 160 percent.

- **Among the 50 states, Pennsylvania ranks tenth in exports to Asia.**

A number of Pennsylvania's important industries have a major stake in the health of Asian economies. The state's principal sectors that export to Asia include:

- The electric and electronic equipment industry, which accounts for $862 million, or 21 percent, of the state's exports to Asia.

- The chemical products industry, which was responsible for $832 million of the merchandise that Pennsylvania exported to Asia in 1996. Exports in this sector account for nearly 21 percent of the state's total to the region.

- The industrial machinery and computers industry, which accounts for $778 million, or 19.3 percent, of the state's exports to Asia. This sector has increased its Asian exports from $484 million in 1993 to $778 million in 1996, and increase of 61 percent.

One important danger of the Asian financial crisis is the contagion effect — the possibility that the trouble could spread and other developing nations could face similar economic and financial difficulties. Such an event could have an even more significant impact on Pennsylvania's economy.

- In 1996, Pennsylvania exported $6.4 billion of merchandise to the world's developing nations. Exports to these countries accounted for 36.4 percent of the state's exports and 2.0 percent of the gross state product.

Sources: Department of Commerce, Department of Agriculture, Standard & Poor's
Note: Asia refers to China, Hong Kong, Indonesia, Japan, Korea, Malaysia, Philippines, Singapore, Taiwan, and Thailand.
All export figures refer to merchandise exports, which consist of manufactures, agricultural and livestock products, and other commodities. Except where otherwise noted, export figures are calculated based on the location of exporter, which is not necessarily the same as the location of producer.

THE IMPORTANCE OF ASIA TO RHODE ISLAND

Over the past several decades, growth in international trade has made the world's economies increasingly interdependent. During that period, trade with Asia has become an important component of U.S. economic growth. Today, exports to Asia account for 30 percent of all U.S. exports; agricultural exports to Asia constitute 40 percent of all U.S. agricultural exports. Like the U.S. as a whole, the Rhode Island economy has forged close ties with the economies of Asia. As a result, the financial crisis in Asia is likely to have a real impact on the lives of Rhode Island's residents and businesses.

- Rhode Island exported $217 million of merchandise to Asia in 1996. These exports accounted for 23 percent of the state's total merchandise exports.
- Exports have been a key vehicle of growth for Rhode Island. Between 1993 and 1996, the state's exports to Asia increased by 41 percent.
- Most notably, the state's exports to Korea increased from $14 million to $26 million between 1993 and 1996.

A number of Rhode Island's important industries have a major stake in the health of Asian economies. The state's principal sectors that export to Asia include:

- The electric and electronic equipment industry, which accounted for $72 million, or 33 percent, of the state's exports to Asia in 1996.
- The industrial machines and computers sector exported $25 million in merchandise to Asia in 1996. These exports accounted for 11 percent of Rhode Island's total to the region.
- The scientific and measuring instrument industry, which accounted for $15 million, or 7 percent of the state's exports to Asia in 1996.
- The fish and other marine products sector, which accounted for 7 percent of the state's 1996 Asian exports, increased from $5.8 million to $14.8 million, between 1993 and 1996.

One important danger of the Asian financial crisis is the contagion effect — the possibility that the trouble could spread and other developing nations could face similar economic and financial difficulties. Such an event could have an even more significant impact on the economy of Rhode Island.

Sources: Department of Commerce, Department of Agriculture, Standard & Poor's
Note: Asia refers to China, Hong Kong, Indonesia, Japan, Korea, Malaysia, Philippines, Singapore, Taiwan, and Thailand.
All export figures refer to merchandise exports, which consist of manufactures, agricultural and livestock products, and other commodities. Except where otherwise noted, export figures are calculated based on the location of exporter, which is not necessarily the same as the location of producer.

THE IMPORTANCE OF ASIA TO SOUTH CAROLINA

Over the past several decades, growth in international trade has made the world's economies increasingly interdependent. During that period, trade with Asia has become an important component of U.S. economic growth. Today, exports to Asia account for 30 percent of all U.S. exports; agricultural exports to Asia constitute 40 percent of all U.S. agricultural exports. The Department of Agriculture estimates that in 1996, South Carolina produced $348 million in agricultural exports. And, like the U.S. as a whole, the economy of South Carolina has forged close ties with the economies of Asia. As a result, the financial crisis in Asia is likely to have a real impact on the lives of South Carolina's residents and businesses.

- South Carolina exported $713 million of merchandise to Asia in 1996. These exports accounted for 15 percent of the state's total merchandise exports.

- Exports have been a key vehicle of growth for South Carolina. Between 1993 and 1996, the state's exports to Asia increased by 27 percent.

A number of South Carolina's important industries have a major stake in the health of Asian economies. The state's principal sectors that export to Asia include:

- The electric and electronic equipment sector, which in 1996 sent goods worth $177 million to Asia. Exports in this sector are responsible for 25 percent of South Carolina's exports to the region.

- The chemical products industry, which exported $161 million in merchandise to Asia in 1996 and accounted for 23 percent of the state's total Asian exports.

- The industrial machinery and computers sector, which in 1996 was responsible for $137 million, or 19 percent, of South Carolina's Asian exports.

One important danger of the Asian financial crisis is the contagion effect — the possibility that the trouble could spread and other developing nations could face similar economic and financial difficulties. Such an event could have an even more significant impact on South Carolina's economy.

- In 1996, South Carolina exported $1.7 billion of merchandise to the world's developing nations. Exports to these countries accounted for 36 percent of the state's exports.

Sources: Department of Commerce, Department of Agriculture, Standard & Poor's
Note: Asia refers to China, Hong Kong, Indonesia, Japan, Korea, Malaysia, Philippines, Singapore, Taiwan, and Thailand.
All export figures refer to merchandise exports, which consist of manufactures, agricultural and livestock products, and other commodities. Except where otherwise noted, export figures are calculated based on the location of exporter, which is not necessarily the same as the location of producer.

THE IMPORTANCE OF ASIA TO SOUTH DAKOTA

Over the past several decades, growth in international trade has made the world's economies increasingly interdependent. During that period, trade with Asia has become an important component of U.S. economic growth. Today, exports to Asia account for 30 percent of all U.S. exports. And, like the U.S. as a whole, the South Dakota economy has forged close ties with the economies of Asia. As a result, the financial crisis in Asia is likely to have a real impact on the lives of South Dakota's residents and businesses.

- Agricultural exports to Asia constitute 40 percent of all U.S. agricultural exports. The Department of Agriculture estimates that in 1996, South Dakota produced $1.2 billion in agricultural exports.

- Exports have been a key vehicle of growth for South Dakota. Between 1993 and 1996, the state's exports to Asia increased by 327 percent.

South Dakota businesses sell a wide range of products to Asia and therefore have a major stake in the health of Asian economies. The state's principal sectors that export to Asia include:

- The industrial machinery and computers industry, which accounts for $39 million, or 48 percent, of the state's exports to Asia. South Dakota's Asian exports in this sector increased 493 percent between 1993 and 1996.

- The electric and electronic industry, which exported $20 million from South Dakota to Asia in 1996, accounting for 24 percent of the state's exports to the region. Exports in this sector increased by 298 percent between 1993 and 1996.

- The scientific and measuring instrument industry, which accounts for $16 million, or 19 percent, of the state's exports to Asia.

One important danger of the Asian financial crisis is the contagion effect — the possibility that the trouble could spread and other developing nations could face similar economic and financial difficulties. Such an event could have an even more significant impact on South Dakota's economy.

Sources: Department of Commerce, Department of Agriculture, Standard & Poor's
Note: Asia refers to China, Hong Kong, Indonesia, Japan, Korea, Malaysia, Philippines, Singapore, Taiwan, and Thailand.
All export figures refer to merchandise exports, which consist of manufactures, agricultural and livestock products, and other commodities. Except where otherwise noted, export figures are calculated based on the location of exporter, which is not necessarily the same as the location of producer.

THE IMPORTANCE OF ASIA TO TENNESSEE

Over the past several decades, growth in international trade has made the world's economies increasingly interdependent. During that period, trade with Asia has become an important component of U.S. economic growth. Today, exports to Asia account for 30 percent of all U.S. exports; agricultural exports to Asia constitute 40 percent of all U.S. agricultural exports. Like the U.S. as a whole, the economy of Tennessee has forged close ties with the economies of Asia. As a result, the financial crisis in Asia is likely to have a real impact on the lives of Tennessee's residents and businesses.

- Tennessee exported $2.7 billion of merchandise to Asia in 1996. These exports accounted for 29 percent of the state's total merchandise exports.

- Exports have been a key vehicle of growth for Tennessee. Between 1993 and 1996, the state's exports to Asia increased by 133 percent.

A number of Tennessee's important industries have a major stake in the health of Asian economies. The state's principal sectors that export to Asia include:

- The agricultural sector, which in 1996 sent goods worth $1.2 billion to Asia, accounting for 43 percent of Tennessee's exports to the region.

- The chemical products industry, which exported $380 million in merchandise to Asia in 1996, accounting for 14 percent of the state's exports to the region.

- The industrial machinery and computers sector, which in 1996 was responsible for $262 million, or 10 percent, of Tennessee's Asian exports.

One important danger of the Asian financial crisis is the contagion effect — the possibility that the trouble could spread and other developing nations could face similar economic and financial difficulties. Such an event could have an even more significant impact on Tennessee's economy.

- In 1996, Tennessee exported $4.1 billion of merchandise to the world's developing nations. Exports to these countries accounted for 44.1 percent of the state's exports and 2.9 percent of its total gross state product.

Sources: Department of Commerce, Department of Agriculture, Standard & Poor's
Note: Asia refers to China, Hong Kong, Indonesia, Japan, Korea, Malaysia, Philippines, Singapore, Taiwan, and Thailand.
All export figures refer to merchandise exports, which consist of manufactures, agricultural and livestock products, and other commodities. Except where otherwise noted, export figures are calculated based on the location of exporter, which is not necessarily the same as the location of producer.

THE IMPORTANCE OF ASIA TO TEXAS

Over the past several decades, growth in international trade has made the world's economies increasingly interdependent. During that period, trade with Asia has become an important component of U.S. economic growth. Today, exports to Asia account for 30 percent of all U.S. exports; agricultural exports to Asia constitute 40 percent of all U.S. agricultural exports. The Department of Agriculture estimates that in 1996, Texas produced $3.6 billion in agricultural exports. And, like the U.S. as a whole, the economy of Texas has forged close ties with the economies of Asia. As a result, the financial crisis in Asia is likely to have a real impact on the lives of Texas's residents and businesses.

- **Among the 50 states, Texas is the fourth largest exporter to Asia.**
- Texas exported $10.0 billion of merchandise to Asia in 1996. These exports accounted for 20.7 percent of the state's total merchandise exports.
- Exports have been a key vehicle of growth for Texas. Between 1993 and 1996, the state's exports to Asia increased by 46 percent.

A number of Texas's important industries have a major stake in the health of Asian economies. The state's principal sectors that export to Asia include:

- The chemical products industry, which sent $2.4 billion of merchandise to Asia in 1996, accounting for 24 percent of the state's exports to the region.
- The electronics and electric sector, which in 1996 sent goods worth $3.7 billion to Asia and was responsible for 37 percent of Texas's Asian exports.
- The industrial machinery and computers sector, which in 1996 was responsible for $1.5 billion, or 15 percent of Texas's Asian exports.

One important danger of the Asian financial crisis is the contagion effect — the possibility that the trouble could spread and other developing nations could face similar economic and financial difficulties. Such an event could have an even more significant impact on Texas's economy.

- In 1996, Texas exported $32.5 billion of merchandise to the world's developing nations. Exports to these countries accounted for 67.3 percent of the state's exports and 5.9 percent of Texas's gross state product.

Sources: Department of Commerce, Department of Agriculture, Standard & Poor's
Note: Asia refers to China, Hong Kong, Indonesia, Japan, Korea, Malaysia, Philippines, Singapore, Taiwan, and Thailand.
All export figures refer to merchandise exports, which consist of manufactures, agricultural and livestock products, and other commodities. Except where otherwise noted, export figures are calculated based on the location of exporter, which is not necessarily the same as the location of producer.

THE IMPORTANCE OF ASIA TO UTAH

Over the past several decades, growth in international trade has made the world's economies increasingly interdependent. During that period, trade with Asia has become an important component of U.S. economic growth. Today, exports to Asia account for 30 percent of all U.S. exports; agricultural exports to Asia constitute 40 percent of all U.S. agricultural exports. Like the U.S. as a whole, the economy of Utah has forged close ties with the economies of Asia. As a result, the financial crisis in Asia is likely to have a real impact on the lives of Utah's residents and businesses.

- Utah exported $1.1 billion in merchandise to Asia in 1996. These exports accounted for 40.3 percent of the state's total exports.
- Exports to Asia are an important component of Utah's economy. In 1996, Utah's Asian exports accounted for 2.3 percent of the state's gross state product.
- Between 1993 and 1996, the state's exports to Asia increased by 26 percent.

A number of Utah's important industries have a major stake in the health of Asian economies:

- The industrial machines and computer sector was responsible for $210 million and accounted for 19 percent of the state's Asian exports. Exports from this sector increased 789 percent between 1993 and 1996.
- The electric and electronic equipment sector is the second largest source of Utah's exports to Asia, with about $181 million, or 16 percent of the state's total to the region in 1996.
- Utah's transportation equipment sector exported $123 million to Asia in 1996, accounting for 11 percent of the state's exports to the region.

One important danger of the Asian financial crisis is the contagion effect — the possibility that the trouble could spread and other developing nations could face similar economic and financial difficulties. Such an event could have an even more significant impact on Utah's economy.

Sources: Department of Commerce, Department of Agriculture, Standard & Poor's
Note: Asia refers to China, Hong Kong, Indonesia, Japan, Korea, Malaysia, Philippines, Singapore, Taiwan, and Thailand.
All export figures refer to merchandise exports, which consist of manufactures, agricultural and livestock products, and other commodities. Except where otherwise noted, export figures are calculated based on the location of exporter, which is not necessarily the same as the location of producer.

THE IMPORTANCE OF ASIA TO VERMONT

Over the past several decades, growth in international trade has made the world's economies increasingly interdependent. During that period, trade with Asia has become an important component of U.S. economic growth. Today, exports to Asia account for 30 percent of all U.S. exports; agricultural exports to Asia constitute 40 percent of all U.S. agricultural exports. Like the U.S. as a whole, the Vermont economy has forged close ties with the economies of Asia. As a result, the financial crisis in Asia is likely to have a real impact on the lives of Vermont's residents and businesses.

- Exports have been a key vehicle of growth for Vermont. The state's exports to Asia in 1996 were 28 percent higher than in 1993

- Most notably, the state's exports to Japan increased by 172 percent, from $12.3 million to $33.5 million; and to Indonesia, by 174 percent, from $418,000 to $1.1 million.

A number of Vermont's important industries have a major stake in the health of Asian economies. The state's sectors that export to Asia include:

- The industrial machinery and computers sector, which exported $20.0 million and accounted for 25 percent of the state's exports to Asia in 1996.

- The fabricated metal products industry, which is responsible for $10.5 million, or 13 percent, of Vermont's 1996 Asian exports.

- The textile mill products industry, which accounts for $8.8 million, or 11 percent, of the state's exports to Asia. Vermont's Asian exports in this sector increased by 395 percent between 1993 and 1996.

- The electric and electronic equipment industry, which exported $7.7 million, accounting for 9.8 percent of the state's exports to Asia in 1996.

One important danger of the Asian financial crisis is the contagion effect — the possibility that the trouble could spread and other developing nations could face similar economic and financial difficulties. Such an event could have an even more significant impact on Vermont's economy.

- In 1996, Vermont exported $89.2 million of merchandise to the world's developing nations. Exports to these countries accounted for 3.4 percent of the state's exports.

Sources: Department of Commerce, Department of Agriculture, Standard & Poor's
Note: Asia refers to China, Hong Kong, Indonesia, Japan, Korea, Malaysia, Philippines, Singapore, Taiwan, and Thailand.
All export figures refer to merchandise exports, which consist of manufactures, agricultural and livestock products, and other commodities. Except where otherwise noted, export figures are calculated based on the location of exporter, which is not necessarily the same as the location of producer.

THE IMPORTANCE OF ASIA TO VIRGINIA

Over the past several decades, growth in international trade has made the world's economies increasingly interdependent. During that period, trade with Asia has become an important component of U.S. economic growth. Today, exports to Asia account for 30 percent of all U.S. exports; agricultural exports to Asia constitute 40 percent of all U.S. agricultural exports. The Department of Agriculture estimates that in 1996, Virginia produced $490 million in agricultural exports. Like the U.S. as a whole, the economy of Virginia has forged close ties with the economies of Asia. As a result, the financial crisis in Asia is likely to have a real impact on the lives of Virginia's residents and businesses.

- Virginia exported $2.9 billion of merchandise to Asia in 1996. These exports accounted for 26.5 percent of the state's total merchandise exports.

- Exports have been a key vehicle of growth for Virginia. Between 1993 and 1996, the state's exports to Asia increased by 20.8 percent.

A number of Virginia's important industries have a major stake in the health of Asian economies. The state's principal sectors that export to Asia include:

- The transportation equipment sector, which in 1996 was responsible for $358 million, or 12 percent, of Virginia's Asian exports.

- The industrial machinery and computers sector, which in 1996 sent goods worth $246 million to Asia and was responsible for over 8 percent of Virginia's exports to the region.

One important danger of the Asian financial crisis is the contagion effect — the possibility that the trouble could spread and other developing nations could face similar economic and financial difficulties. Such an event could have an even more significant impact on Virginia's economy.

- In 1996, Virginia exported $4.4 billion of merchandise to the world's developing nations. Exports to these countries accounted for 40 percent of the state's exports.

Sources: Department of Commerce, Department of Agriculture, Standard & Poor's
Note: Asia refers to China, Hong Kong, Indonesia, Japan, Korea, Malaysia, Philippines, Singapore, Taiwan, and Thailand.
All export figures refer to merchandise exports, which consist of manufactures, agricultural and livestock products, and other commodities. Except where otherwise noted, export figures are calculated based on the location of exporter, which is not necessarily the same as the location of producer.

THE IMPORTANCE OF ASIA TO WASHINGTON

Over the past several decades, growth in international trade has made the world's economies increasingly interdependent. During that period, trade with Asia has become an important component of U.S. economic growth. Today, exports to Asia account for 30 percent of all U.S. exports; agricultural exports to Asia constitute 40 percent of all U.S. agricultural exports. The Department of Agriculture estimates that in 1996, Washington produced $2.0 billion in agricultural exports. And, like the U.S. as a whole, the economy of Washington has forged close ties with the economies of Asia. As a result, the financial crisis in Asia is likely to have a real impact on the lives of Washington's residents and businesses.

- **Among the 50 states, Washington is the second largest exporter to Asia.**
- Washington exported $13.9 billion in merchandise to Asia in 1996. These exports accounted for 54.6 percent of the state's total merchandise exports.
- Exports to Asia are an important component of Washington economy. In 1996, Washington's Asian exports accounted for 8.7 percent of the state's gross state product

A number of Washington's important industries have a major stake in the health of Asian economies:

- The transportation equipment sector accounted for 48 percent, or $6.6 billion, of the state's Asian exports in 1996.
- Lumber and wood products were responsible for $2.6 billion of Washington's exports to Asia in 1996. This sector accounted for almost 19 percent of the state's exports to the region.
- The $1.3 billion of exports in the fishing industry accounted for just under 10 percent of Washington's exports to Asia in 1996, making it the third largest source of Asian exports.

While healthy economies in all of the Asian nations are in Washington's interests, a few nations are of particular importance.

- Japan is the leading destination in Asia for Washington's exports, with 45 percent.
- Korea receives just under 15 percent of Washington's Asian exports.

One important danger of the Asian financial crisis is the contagion effect — the possibility that the trouble could spread and other developing nations could face similar economic and financial difficulties. Such an event could have an even more significant impact on Washington's economy.

Sources: Department of Commerce, Department of Agriculture, Standard & Poor's
Note: Asia refers to China, Hong Kong, Indonesia, Japan, Korea, Malaysia, Philippines, Singapore, Taiwan, and Thailand.
All export figures refer to merchandise exports, which consist of manufactures, agricultural and livestock products, and other commodities. Except where otherwise noted, export figures are calculated based on the location of exporter, which is not necessarily the same as the location of producer.

THE IMPORTANCE OF ASIA TO WISCONSIN

Over the past several decades, growth in international trade has made the world's economies increasingly interdependent. During that period, trade with Asia has become an important component of U.S. economic growth. Today, exports to Asia account for 30 percent of all U.S. exports; agricultural exports to Asia constitute 40 percent of all U.S. agricultural exports. The Department of Agriculture estimates that in 1996, Wisconsin produced $1.4 billion in agricultural exports. And, like the U.S. as a whole, the Wisconsin economy has forged close ties with the economies of Asia. As a result, the financial crisis in Asia is likely to have a real impact on the lives of Wisconsin's residents and businesses.

- Wisconsin exported $1.7 billion of merchandise to Asia in 1996. These exports accounted for 20.2 percent of the state's total merchandise exports.

- Exports have been a key vehicle of growth for Wisconsin. Between 1993 and 1996, the state's exports to Asia increased by 77 percent

- Most notably, state exports to Indonesia increased by 252 percent, and to Malaysia, by 188 percent.

A number of Wisconsin's important industries have a major stake in the health of Asian economies. The state's principal sectors that export to Asia include:

- The industrial machinery and computers industry, which was responsible for $563 million in exports in 1996, accounting for 33 percent of the state's exports to Asia. Exports from Wisconsin to Asia in this sector increased by 87 percent between 1993 and 1996.

- The scientific and measuring instrument industry, which is responsible for $433 million, or 26 percent, of Wisconsin's 1996 exports to Asia.

- The electric and electronic equipment industry, which exported $152 million and accounted for 9 percent of the state's exports to Asia in 1996.

One important danger of the Asian financial crisis is the contagion effect — the possibility that the trouble could spread and other developing nations could face similar economic and financial difficulties. Such an event could have an even more significant impact on Wisconsin's economy.

- In 1996, Wisconsin exported $2.4 billion of merchandise to the world's developing nations. Exports to these countries accounted for 28.3 percent of the state's exports.

Sources: Department of Commerce, Department of Agriculture, Standard & Poor's
Note: Asia refers to China, Hong Kong, Indonesia, Japan, Korea, Malaysia, Philippines, Singapore, Taiwan, and Thailand.
All export figures refer to merchandise exports, which consist of manufactures, agricultural and livestock products, and other commodities. Except where otherwise noted, export figures are calculated based on the location of exporter, which is not necessarily the same as the location of producer.

THE IMPORTANCE OF ASIA TO WEST VIRGINIA

Over the past several decades, growth in international trade has made the world's economies increasingly interdependent. During that period, trade with Asia has become an important component of U.S. economic growth. Today, exports to Asia account for 30 percent of all U.S. exports; agricultural exports to Asia constitute 40 percent of all U.S. agricultural exports. Like the U.S. as a whole, the economy of West Virginia has forged close ties with the economies of Asia. As a result, the financial crisis in Asia is likely to have a real impact on the lives of West Virginia's residents and businesses.

- West Virginia exported $231 million of merchandise to Asia in 1996. These exports accounted for 19.0 percent of the state's total merchandise exports.

- Exports have been a key vehicle of growth for West Virginia. Between 1993 and 1996, the state's exports to Asia increased by 21.9 percent.

A number of West Virginia's important industries have a major stake in the health of Asian economies. The state's sectors that export to Asia include:

- The chemical industry, which sent $96 million in merchandise from the state to Asia in 1996. This sector accounts for 41.5 percent of West Virginia's Asian exports.

- The bituminous coal and lignite sector, which in 1996 was responsible for $56 million, or 24.4 percent, of West Virginia's Asian exports.

- The primary metals sector, which in 1996 sent goods worth $24 million to Asia, accounting for 10.3 percent of West Virginia's exports to the region.

One important danger of the Asian financial crisis is the contagion effect — the possibility that the trouble could spread and other developing nations could face similar economic and financial difficulties. Such an event could have an even more significant impact on West Virginia's economy.

- In 1996, West Virginia exported $269 million of merchandise to the world's developing nations. Exports to these countries accounted for 22.1 percent of the state's exports.

Sources: Department of Commerce, Department of Agriculture, Standard & Poor's
Note: Asia refers to China, Hong Kong, Indonesia, Japan, Korea, Malaysia, Philippines, Singapore, Taiwan, and Thailand.
All export figures refer to merchandise exports, which consist of manufactures, agricultural and livestock products, and other commodities. Except where otherwise noted, export figures are calculated based on the location of exporter, which is not necessarily the same as the location of producer.

THE IMPORTANCE OF ASIA TO WYOMING

Over the past several decades, growth in international trade has made the world's economies increasingly interdependent. During that period, trade with Asia has become an important component of U.S. economic growth. Today, exports to Asia account for 30 percent of all U.S. exports. And, like the U.S. as a whole, the economy of Wyoming has forged close ties with the economies of Asia. As a result, the financial crisis in Asia is likely to have a real impact on the lives of Wyoming's residents and businesses.

- Agricultural exports to Asia constitute 40 percent of all U.S. agricultural exports. The Department of Agriculture estimates that in 1996, Wyoming produced $46 million in agricultural exports.
- Wyoming's exports to Asia accounted for 19.4 percent of the state's total exports.
- Exports have been a key vehicle of growth for Wyoming. Between 1993 and 1996, the state's exports to Asia increased by 73.2 percent.

Wyoming businesses sell a wide range of products to Asia and therefore have a major stake in the health of Asian economies:

- The food products sector, with $13 million of exports in 1996, accounts for 54 percent of the state's Asian exports. Exports from this sector grew 830 percent between 1993 and 1996.
- The bituminous coal and lignite sector was the second largest source or Wyoming's Asian exports in 1996, with $3 million, or 12 percent of the state's exports to the region.

While healthy economies in all of the Asian nations are in Wyoming's interests, a few nations have particular importance.

- Japan is the leading destination of Wyoming's Asian exports, receiving 77 percent of the goods that the state sends to the region in 1996.

One important danger of the Asian financial crisis is the contagion effect — the possibility that the trouble could spread and other developing nations could face similar economic and financial difficulties. Such an event could have an even more significant impact on Wyoming's economy.

Sources: Department of Commerce, Department of Agriculture, Standard & Poor's
Note: Asia refers to China, Hong Kong, Indonesia, Japan, Korea, Malaysia, Philippines, Singapore, Taiwan, and Thailand.
All export figures refer to merchandise exports, which consist of manufactures, agricultural and livestock products, and other commodities. Except where otherwise noted, export figures are calculated based on the location of exporter, which is not necessarily the same as the location of producer.