

Board of Governors of the Federal Reserve System

International Finance Discussion Papers

Number 358

July 1989

IMPLICATIONS FOR FUTURE U.S. NET INVESTMENT PAYMENTS OF  
GROWING U.S. NET INTERNATIONAL INDEBTEDNESS

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## ABSTRACT

In the 1980s, the United States developed a large and persistent current account deficit, financed by borrowing from abroad. The purpose of this paper is to explore the sustainability of these large deficits from one of several possible perspectives. Simulations of a model of the U.S. current account are used to examine the future servicing burden implied by the accumulating U.S. indebtedness to foreigners (or more precisely by the negative net international investment position).

Implications for Future U.S. Net Investment Payments of  
Growing U.S. Net International Indebtedness

Lois E. Stekler and William L. Helkie<sup>1</sup>

In the 1980s, the United States developed a large and persistent current account deficit, financed by borrowing from abroad. The purpose of this paper is to explore the sustainability of these large deficits by examining the future servicing burden implied by the accumulating U.S. indebtedness to foreigners (or more precisely by the negative net international investment position). This future servicing burden is not adequately measured by back-of-the-envelope calculations multiplying net indebtedness by assumed interest rates.

Part I of the paper explains why the future servicing burden cannot be calculated from the net debtor position data alone. Part II describes the model used in simulating the future path of U.S. net investment payments. Part III presents the simulations and part IV assesses the implications of the simulation results for the sustainability question. It should be stressed that these simulations are hypothetical and should not be interpreted as actual projections.

I. Servicing Burden: Role of Gross Claims and Liabilities

The net international investment position of the United States turned negative, according to published data, sometime in 1985. However, net investment income has continued positive through 1988. Despite a negative position that approached \$500 billion by the end of 1988, the

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1. The authors are staff economists in the International Finance Division. This paper represents the views of the author and should not be interpreted as reflecting the views of the Board of Governors of the Federal Reserve System or other members of its staff. The authors wish to thank Peter Hooper, David Howard, and Charles Thomas for their helpful comments.

United States received \$2.6 billion more in income on investments abroad than foreigners earned on their investments in the United States.

There are several explanations for this apparent paradox. First, the measurement of the U.S. investment position is subject to a variety of uncertainties; as stated by the Department of Commerce, "the net investment position is only a rough indication, rather than a precise statistical measure, and should be interpreted with caution."<sup>2</sup> The uncertainties are the result of the large cumulative statistical discrepancy in the U.S. international transactions accounts and problems in valuing certain assets and liabilities. In particular, direct investments are included at book value (which seriously understates the value of older investments), gold holdings are valued at the official price (\$42-2/9 per ounce), most U.S. deposits at banks outside the United States are omitted, etc. The interested reader is referred to Stekler (1989), Eisner and Pieper (1989), and Ulan and Dewald (1989) for more detailed discussion of the inadequacies in the published measure of the investment position and some alternative estimates.

Second, U.S. residents tend to earn a higher rate of return on their assets abroad than foreigners earn on their assets in the United States.<sup>3</sup> To illustrate the implications of this fact, consider the following:

$$Y = r_c C - r_l L$$

where Y is net investment income, C is U.S. claims on foreigners, L is U.S. liabilities to foreigners, and  $r_c$  and  $r_l$  are the rates of return earned by claims and liabilities. If  $r_c = r_l = r$ , then  $Y = r(C - L)$ ;

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2. Department of Commerce, Survey of Current Business, June 1988, p.76.

3. The accuracy of this observation and the likelihood that this differential will persist are discussed later in this paper.

net investment income depends on the market interest rate times the net investment position. However, if  $r_c = r_1 + x$ , then  $Y = r_1(C - L) + xC$ . If rates of return differ, then net investment income cannot be calculated by merely multiplying net indebtedness times an assumed interest rate.

This is, of course, a simplified illustration of why U.S. investment income remains positive when the net investment position is negative. U.S. claims and liabilities are not homogeneous, and do not earn a single rate of return. However, simulations with our model of the U.S. current account yield similar results.

## II. The Model

The model of the U.S. current account used in our simulations was developed at the Federal Reserve Board and has been described in detail in Helkie and Hooper (1988) and Helkie and Stekler (1987).<sup>4</sup> Since the model has been described elsewhere, we present only a brief summary of the main characteristics of the investment income sector.

The model includes equations for each of the components of investment income published by the Department of Commerce in the U.S. international transactions accounts: direct investment receipts and payments and government and private receipts and payments on portfolio investment. Structural equations were estimated for each category, using quarterly data. Structural models were preferred over time-series techniques because of our interest in doing conditional forecasts, and assessing the impact of changes in specific assumptions on these forecasts.

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4. Bryant (1988) compares the characteristics of this model with other models.

a. Direct investment receipts and payments

The general approach used to model direct investment receipts and payments was to assume that income depends on the scale of investment and on variables that cause fluctuations in nominal dollar profit rates.<sup>5</sup> The scale of investment was measured by the direct investment position in the initial year plus the value of subsequent capital flows deflated by subsequent price (and exchange rate) changes. Fluctuations in nominal dollar profits were explained by changes in GNP relative to potential and changes in prices and exchange rates. While the models for both receipts and payments were similar, the receipts side was disaggregated into three industry categories: manufacturing, petroleum, and other.

In order to simulate direct investment receipts and payments using the model described above, projections of the scale of investment and therefore direct investment capital flows were also necessary. Conceptually we modelled these direct investment capital flows using a sources and uses of funds approach. However, many of the data series that represent concepts that we believe to be theoretically relevant did not explain a significant amount of the movement of measured direct investment capital flows. In general, the size of the direct investment capital flow was explained by changes in GNP scaled by the price level

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5. Previous models of direct investment receipts and payments (Bond 1977 and Kwack 1979) have used the Department of Commerce estimates of the U.S. direct investment position as the measure of the scale of investment and some interest rate (e.g., the rate on long term U.S. government bonds) as the measure of rate of return. We rejected this approach because a dollar added to the direct investment position in 1985 is not likely to have the same impact on earnings as a dollar added in 1975 and because, while movements in interest rates might coincide with movements in profits resulting from cyclical factors or inflation, it seemed preferable to model the impact of these factors directly.

(and exchange rates) and variables designed to indicate the adequacy of depreciation charges to cover replacement costs.<sup>6</sup>

b. Government receipts and payments

The U.S. government earns interest on its holdings of foreign currency, and part of its holdings of SDRs and reserves at the IMF; interest is also earned on claims resulting from economic and military aid. The model includes an equation relating the average rate of return on the average claims outstanding during each quarter to current and lagged values of the 3 month Treasury bill rate. The U.S. government makes payments on foreign holdings of U.S. Government securities; the average rate of return on foreign holdings was also estimated as a distributed lag on the 3 month Treasury bill rate.<sup>7</sup>

In order to simulate government receipts and payments, projections of the scale of government claims and liabilities were also needed. These were determined exogenously.<sup>8</sup>

c. Private portfolio receipts and payments

The U.S. private sector has a variety of claims and liabilities vis-a-vis foreigners. The Department of Commerce uses a very detailed breakdown of holdings along with information on rates of return to estimate the earnings on each type of asset; however, they publish only

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6. Changes in GNP would influence the desired capital stock and level of inventories.

7. The Department of Commerce data on government receipts reflects reported amounts. The data on payments includes reported amounts paid on U.S. Treasury securities held in custody at the Federal Reserve Bank of New York for foreign governments. The remainder is estimated on the basis of holdings and market interest rates.

8. In the simulations, government claims were assumed to increase by \$2 billion a year, the underlying rate in recent years. On the government liabilities side, official purchases of U.S. Treasury securities were assumed negligible since the exchange value of the dollar was assumed constant. Private purchases of U.S. government securities were assumed to grow at a 5 percent annual rate from average 1988 levels.

the aggregate for receipts and payments. The model, therefore, includes only one equation for receipts and one for payments, relating the average rate of return on each to current and lagged values of the 3 month Treasury bill rate.

Private portfolio claims and liabilities are projected using time trends, but are adjusted so that the net capital flow implied is consistent with balance in the U.S. international transactions accounts. Net portfolio capital inflows are constrained to equal (with the reverse sign) the current account balance plus net direct investment capital inflows, plus net government capital inflows, plus the statistical discrepancy. The statistical discrepancy is determined exogenously and is not used as the balancing item.<sup>9</sup> Income is only attributed to recorded capital flows; arbitrary movements in the statistical discrepancy would affect the simulations of net investment income.

d. Ability of the model to track history

The predictive performance of the model is evaluated using simulation analysis of the model's investment income block. The model solves for direct and portfolio investment income, and the associated capital flows and stocks taking as predetermined observations on U.S. income and prices, foreign income and prices, and relevant data on the U.S. merchandise trade and non-factor services account. In this experiment, the model solution is constrained to satisfy the balance-of-payments identity even though the equation residuals are set to zero. Investment income, capital flows, and direct and portfolio assets are simultaneously determined, and the prediction errors are allowed to

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9. In the simulations, the statistical discrepancy is assumed to remain at the average level for 1988.

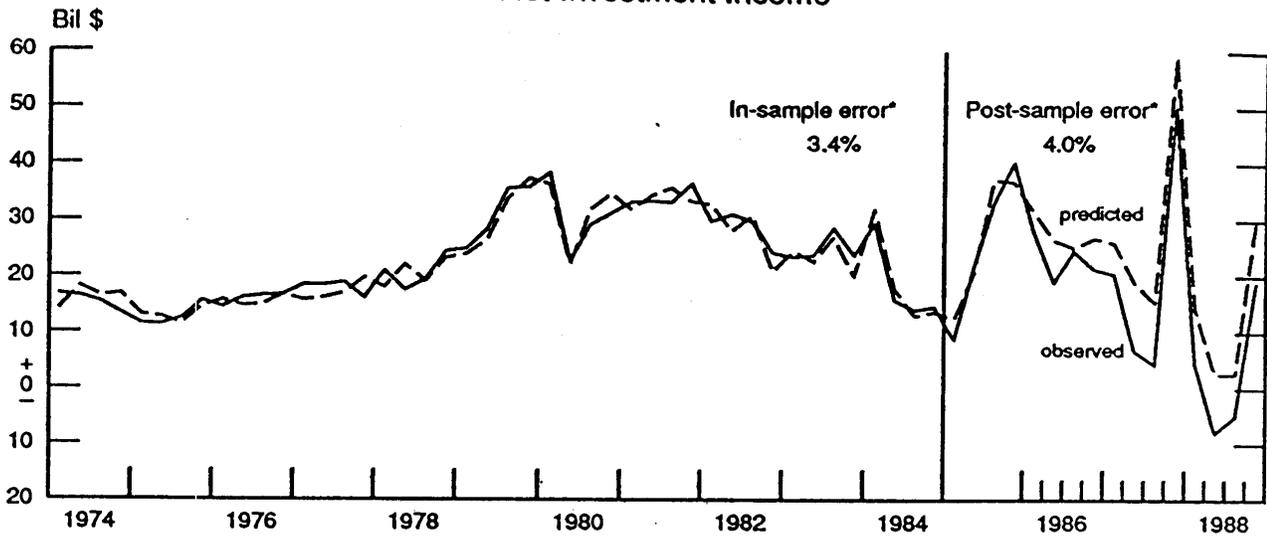
accumulate over time, so the model's prediction errors are not constrained to exhibit white noise within the sample period.

The predictive performance of the investment income sector of the model is summarized in charts 1 and 2. The model's predictive performance is measured over two periods -- the interval that includes observations used to estimate the model's parameters (1974Q1 - 1984Q4) and the period that includes the post-sample data (1985Q1 - 1988Q4). Each figure shows an actual value (solid line labeled "observed"), a model prediction (dashed line labeled "predicted"), and a summary of the in-sample and post-sample percentage root mean squared prediction errors (RMSEs). These RMSEs are expressed as percentages of the in-sample or post-sample means in the case of the stock of direct investment assets. In the case of balances or net flows, these RMSEs are expressed as a percentage of the mean value of the sum of the underlying gross flows (for example, investment income receipts plus investment income payments).

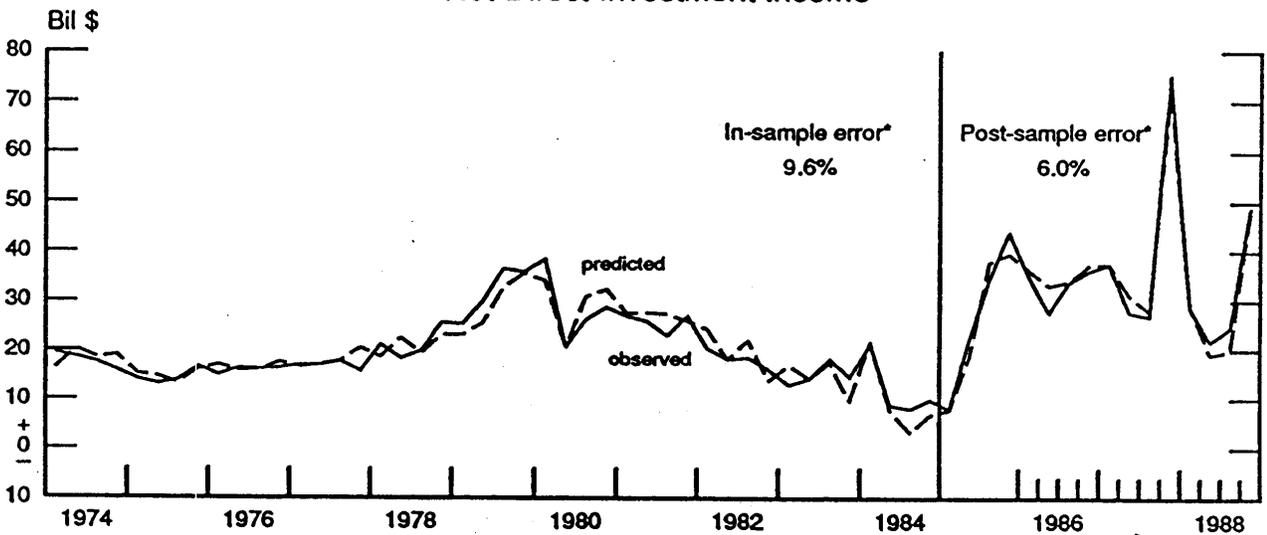
The investment income sector of the model performs reasonably well. The model's prediction error of net investment income is nearly the same post sample (which includes 16 observations outside the sample period) as within sample. The predictive performance for net direct investment capital flows is also nearly the same with in and post sample. However, the favorable overall performance masks some offsetting errors in the individual components of the investment income block of the model. In the post sample, over-predictions of net portfolio investment income receipts are offset in part by under-predictions of net direct investment income receipts. The over-estimate of net investment income leads, through the balance of payments identity, to an under-prediction of net

Chart 1

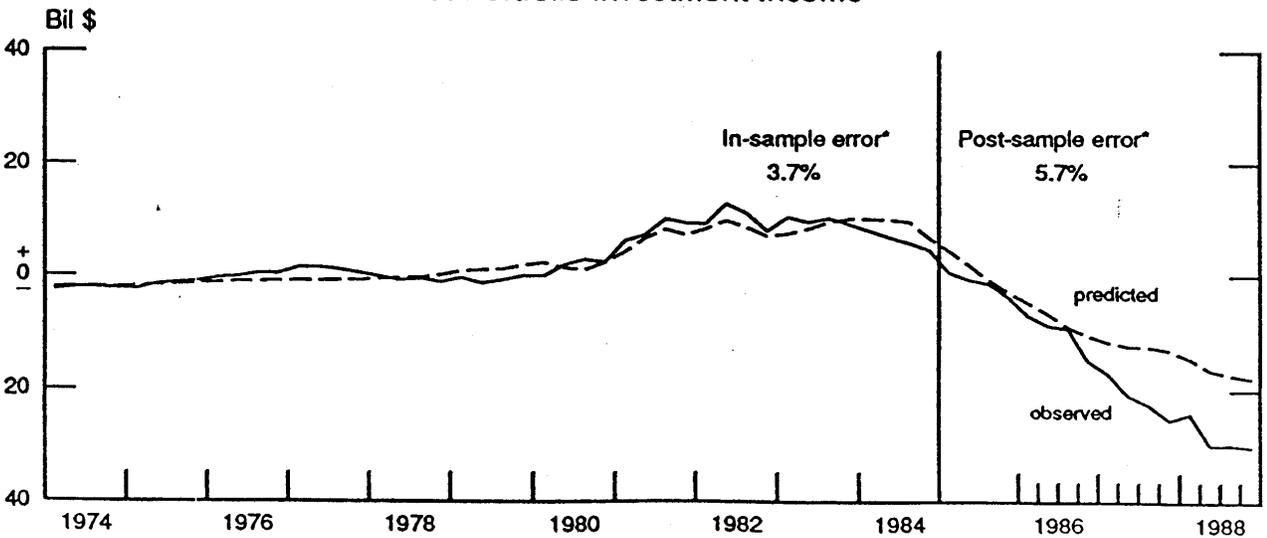
### Net Investment Income



### Net Direct Investment Income



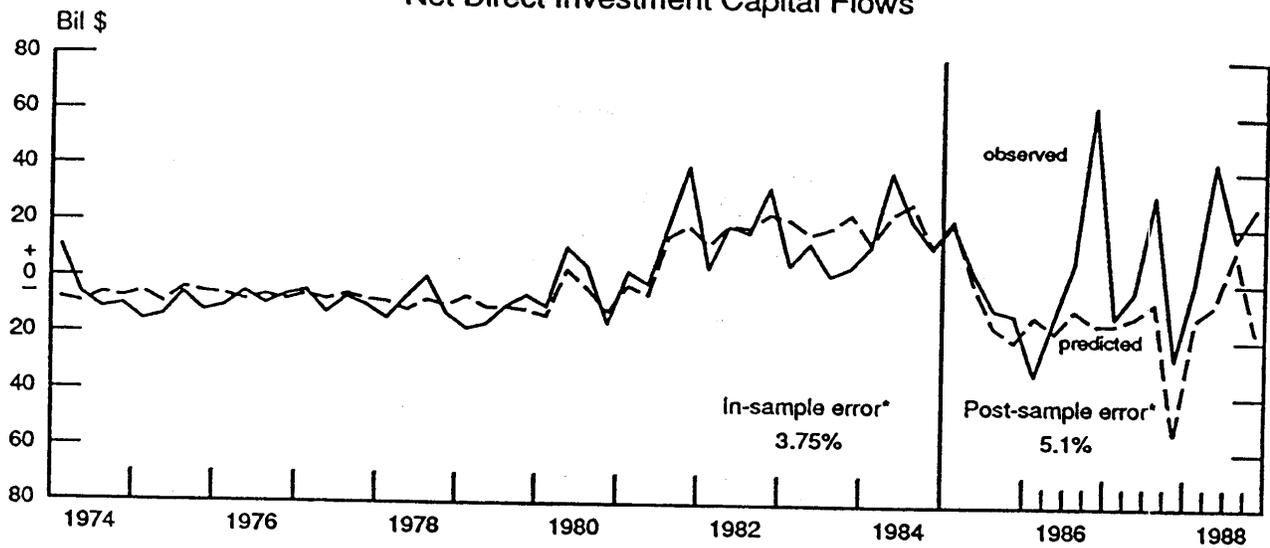
### Net Portfolio Investment Income



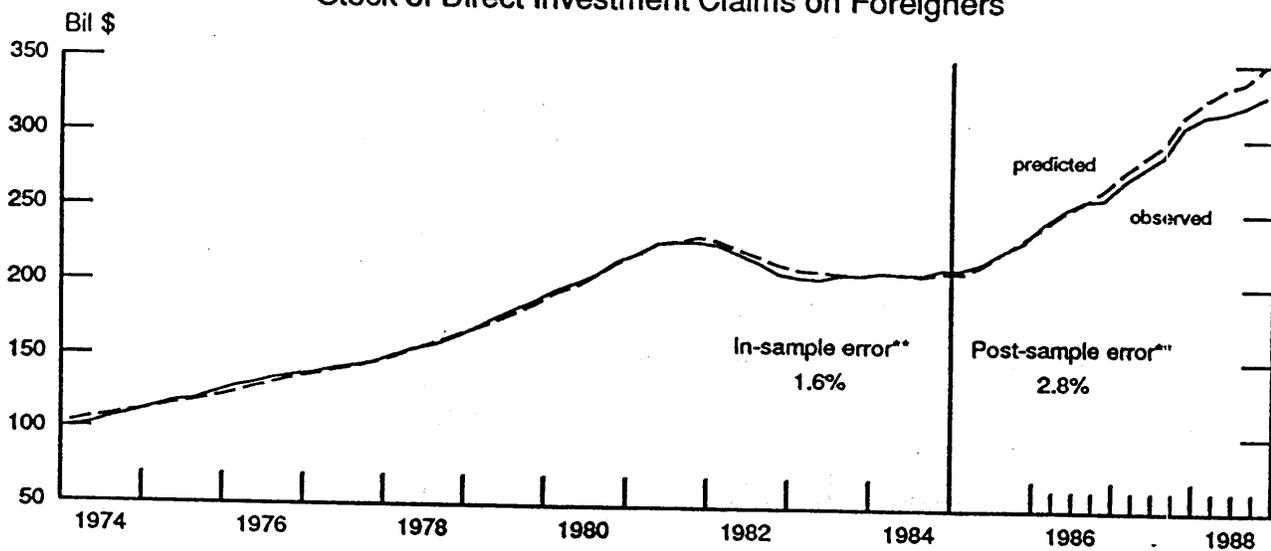
\*Root mean squared error (RMSE) expressed as a percentage of the sample mean of the gross flows.  
(i.e. investment income receipts plus payments)

Chart 2

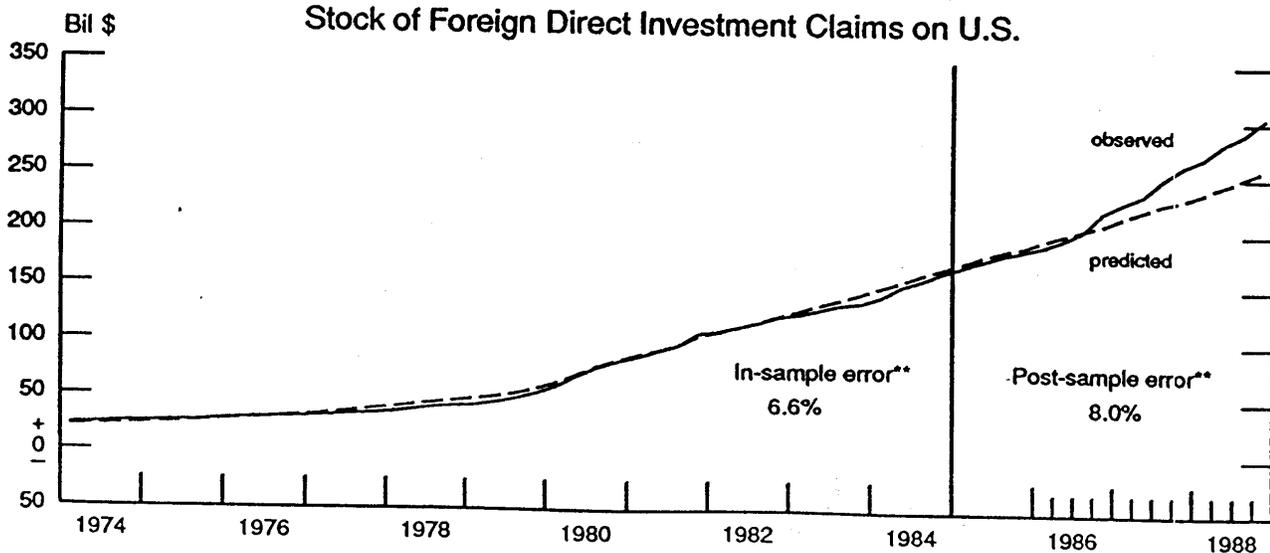
### Net Direct Investment Capital Flows



### Stock of Direct Investment Claims on Foreigners



### Stock of Foreign Direct Investment Claims on U.S.



\*RMSE expressed as a sample mean of the gross stock of direct investment claims and liabilities.

\*\*RMSE expressed as a percentage of sample mean of actual value.

private capital inflows that in turn contributes to further over-predictions of net investment income (see the bottom of Chart 1) and over-predictions of the stock of net claims on foreigners.

### III. The Simulation Assumptions and Results

The simulations were designed to shed light on the size of the future servicing burden implied by growing U.S. net international indebtedness at current exchange rates. The simulations start in 1989Q1 and run through the year 2000.

#### a. Assumptions

The assumptions used for the base case simulations are summarized below:

1. The price adjusted exchange rate for the dollar remains at the 1988Q4 level.
2. U.S. and G-10 real GNP grows at potential (2.5 percent), while the rest of the world grows somewhat more rapidly (world foreign real GNP grows at 2.7 percent).
3. U.S. and G-10 prices increase at 3 percent.
4. The U.S. Treasury bill rate is 7 percent, implying a real interest rate 1.5 percentage points higher than the rate of growth of real GNP.
5. The rate of growth of U.S. portfolio claims and liabilities is reduced to three-quarters of the trend rate estimated over the sample period (1965-1984).

In addition, variations in base-case assumptions were also simulated, including a 100 basis points higher Treasury bill rate and a

slower rate of increase in gross private portfolio claims and liabilities.<sup>10</sup>

b. Simulation results

The simulation results indicate that, with a constant exchange rate, the U.S. trade deficit would widen substantially, reaching over \$250 billion by the year 2000. (See table 1 in the set of tables at the end of the paper.) This result is similar to results obtained with many other econometric models; see Bryant (1988). The current account deficit is even larger (\$365 billion) because of growing net investment income payments. The U.S. net international investment position (as measured by the Department of Commerce, but excluding valuation adjustments and gold) reaches - \$2.8 trillion by the year 2000, about 30 percent of U.S. GNP (table 2).

However, net investment income payments amount to only \$108 billion (-\$138 billion in net portfolio and +\$30 billion in net direct investment receipts). The cost of servicing the U.S. debt (including government interest payments) rises to only 1.1 percent of nominal GNP in 2000. Using NIA definitions, real GDP has to be 0.4 percent larger than real GNP to cover net factor income paid to foreigners, and GDP must grow at 2.6 percent in the year 2000 for GNP to grow at 2.5 percent. The servicing burden does not appear to be significantly larger even if less favorable assumptions are made about interest rates or the rate of growth of gross claims and liabilities. One could assume that, given accumulating U.S. indebtedness, higher interest rates would be required

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10. The base case assumes that gross private portfolio claims and liabilities grow at three-quarters of the trend rate experienced during the sample period (1965Q1-1984Q4). The alternative assumption tried was that the growth rate fell to half the historic trend.

to induce foreigners to lend at constant exchange rates. In the base case, U.S. interest rates are assumed to exceed the rate of growth of nominal GNP by 150 basis points. If interest rates are assumed to be 100 basis points higher than the base case (without any feedbacks on activity or exchange rates, etc.), net investment income payments would increase by \$22 billion, to \$130 billion (table 4). Alternatively, if gross private portfolio claims and liabilities are assumed to grow at only half the rate experienced during the sample period (1965-1984), net investment income payments would increase by \$25 billion, to \$133 billion (table 7).

c. Credibility of the simulation result

The base case simulations indicate that, by the year 2000, U.S. net investment income payments would only equal 3.8 percent of the U.S. net debtor position. Why is the average rate of return so low?

One explanation is that direct investment assets and liabilities are included at book value in the investment position. Because the direct investment position used in these calculations is measured at book value, and since direct investment in the United States is, on average, more recent than U.S. direct investment abroad, the value of U.S. direct investment abroad is more seriously understated because of inflation than the value of foreign direct investment in the United States. The U.S. net debtor position would be about \$350 billion smaller in 2000 if the value of direct investment claims and liabilities were adjusted to take into account inflation (and exchange rate changes) between 1964 and 1988.

More important, however, in explaining the low average rate of return on the U.S. net debt, is the fact that U.S. direct investment claims, on average, earn a higher rate of return than U.S. liabilities

even when the value of the asset position is adjusted for price (and exchange rate) changes. (See table 3.) Implicit in these simulations is the assumption that (as in the past) a dollar added to U.S. direct investment abroad will continue to earn more than a dollar added to foreign direct investment in the United States.

Some differential might be expected on the grounds that some U.S. direct investment abroad is located in countries where political and economic risks are significant. Some differential might also be explained by the newness of foreign direct investment in the United States and initially low profits. However, a major part of the differential is probably the result of tax incentives which lead multinational firms to use transfer prices to shift reported profits to lower tax jurisdictions abroad. Although U.S. corporate tax rates were lowered recently relative to other industrial countries, they still remain above rates in various tax havens. The incentive to report profits abroad will probably persist, inflating reported receipts on U.S. direct investment abroad and depressing payments on foreign direct investment in the United States. Balancing this distortion of the direct investment accounts is the underreporting of exports of goods and services by U.S. corporations to their affiliates abroad and the overstatement of the imports of goods and services by the U.S. affiliates of foreign companies. These understatements of net credits on other current account items are likely to grow as direct investment in and out of the United States continues to expand, so errors in the returns on

direct investment are likely to be matched by equal and opposite errors in other current account items.<sup>11</sup>

Turning now to portfolio investment income, the implicit rate for private payments has been consistently below the rate for government payments and private receipts. (See table 3.) There are several explanations for this. First, at the end of 1987, foreign holdings of U.S. equities amounted to \$173 billion, somewhat less than 20 percent of the U.S. private sector's portfolio liabilities to foreigners while U.S. holdings of foreign equities amounted to only \$56 billion, less than 10 percent of U.S. private portfolio claims on foreigners. Since dividends generally provide only a part of the expected return on equities, and since capital gains on stocks are excluded from the balance of payments accounts, the average rate of return on both portfolio claims and liabilities is brought down, but the impact is larger on the payments side.<sup>12</sup>

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11. This assumes that the cost used in calculating affiliates' profits is the same as the cost declared for customs purposes. In fact the IRS recently collected substantial back taxes from Toyota and Nissan on the grounds that their affiliates were overcharged for imported cars, understating profits. The IRS has ruled that if goods are subject to customs duties, firms may not charge their affiliates more for them than the amount declared for customs purposes.

12. Part of the differential might also be the result of errors introduced by BEA's method of estimating dividends (and interest on bonds). Dividends in the current period are assumed to equal dividends in the previous period plus estimated dividend earnings on equities acquired during the current period; dividends on existing holdings are assumed unchanged from when they were initially purchased. The estimates of payments are periodically checked against the data reported as part of the Benchmark Survey of Foreign Portfolio Investment in the United States; the latest benchmark survey currently available covers 1978. On the receipts side, there has been no benchmark survey since the 1940s. It is not obvious why this methodology would produce larger underestimates on the payments side of the accounts.

Second, the bulk of U.S. portfolio claims and liabilities are reported by banks: about three-quarters of private claims and three-fifths of private liabilities. As intermediaries, banks make profits by earning more on their assets than they pay on their liabilities.<sup>13</sup> In addition, the Department of Commerce includes in receipts of income on U.S. assets abroad estimates of fees earned by banks in the United States for various services provided to foreigners. In response to pressures to improve capital adequacy, major U.S. banks have slowed the growth of their balance sheets and have focused increased attention on profitable off-balance sheet transactions. Fees from these off-balance sheet services to foreigners are likely to continue to grow in the future.<sup>14</sup>

Finally, U.S. nonbanks are likely to be paid a higher rate of return on their dollar deposits abroad than foreigners are paid on their bank deposits in the United States because of the absence of reserve requirements and deposit insurance charges in the Eurodollar market.

For these rate differentials to have the same impact on U.S. net investment income in the future as they have had in the past, it is necessary to assume that gross claims and liabilities will continue to grow and that the composition will not shift unfavorably. Continued internationalization of financial markets is likely to ensure the continued growth of two-way capital flows. However, the outlook for the composition of future capital flows is less certain.

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13. The IMF Working Party on the statistical discrepancy in world current account balances used a spread of 250 basis points between the rate earned on bank claims on nonbanks and the rate paid on liabilities to nonbanks; the spread on interbank transactions is much smaller.

14. Part of the differential between the average rate that banks earn on their assets compared to the rate they pay on their liabilities is the result of BEA's assumption that no income is paid on banks' foreign currency liabilities, while income is estimated for part of their foreign currency claims.

### III. Conclusions

Our simulations of future U.S. net investment income payments indicate that the servicing burden imposed by continued and growing U.S. indebtedness to foreigners over the next decade is likely to be surprisingly small and slow-growing relative to the size of the U.S. economy.<sup>15</sup> If not for growing U.S. international indebtedness, the United States would tend to show a growing surplus on net investment income. Investors' willingness to continue to lend to the United States at current interest and exchange rates is likely to be influenced by many factors in addition to their assessments of the ability of the United States to service its growing debt. However, based only on the narrow assessment of the likely small size of the future servicing burden, there would appear to be little reason for investors to be overly concerned.

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15. The servicing burden relative to GNP is growing throughout the simulation period; admittedly, it cannot continue to grow forever. At some point creditors would view additions as unsustainable, and refuse to lend more at given interest and exchange rates.

Table 1

Control Solution

Projection of U.S. International Transactions

Years	Direct Inv. Income Receipt (\$)	Direct Inv. Pmts (\$)	Net Direct Inv. Receipt (\$)	Portfolio Inv. Receipts (\$)	Portfolio Inv. Pmts (\$)	Govt. Portfolio Income (\$)	Net Portfolio Income Receipts (\$)	Other Service Receipts (\$)	Other Service Pmts (\$)	Net Other Serv. Tran (\$)	Current Account Balance (\$)	Exports (NIA) (\$)	Net Exports (NIA) (\$)	Trade Balance (BOP) (\$)
1986-	38.42	5.38	33.04	51.69	38.98	22.61	-9.90	59.64	62.95	-18.62	-160.03	-104.40	-104.40	-144.55
1987-	52.31	10.51	41.80	51.45	48.83	24.05	-21.43	70.01	71.94	-15.38	-155.28	-123.05	-123.05	-160.28
1988-	48.17	17.25	30.92	60.02	58.95	29.39	-28.32	78.85	77.32	-12.05	-135.97	-94.33	-94.33	-126.52
1989-P	51.02	16.95	34.07	71.56	72.11	34.84	-35.39	83.74	82.00	-13.01	-152.54	-107.67	-107.67	-138.20
1990-P	57.24	23.45	33.79	76.74	80.83	38.58	-42.66	89.03	83.15	-8.87	-148.75	-100.14	-100.14	-131.00
1991-P	61.90	28.22	33.68	84.14	90.95	42.24	-49.05	96.35	89.26	-9.91	-148.87	-94.92	-94.92	-123.59
1992-P	65.65	32.30	33.36	92.55	102.17	45.71	-55.33	103.11	94.63	-8.52	-157.84	-100.65	-100.65	-127.35
1993-P	69.26	36.25	33.01	101.86	114.77	49.14	-62.06	109.72	100.49	-7.77	-171.21	-110.58	-110.58	-134.39
1994-P	73.05	40.32	32.73	112.23	128.97	52.72	-69.46	116.75	106.74	-6.99	-186.45	-122.25	-122.25	-142.73
1995-P	77.10	44.63	32.47	123.81	144.97	56.48	-77.65	124.22	113.73	-6.51	-206.74	-138.78	-138.78	-155.06
1996-P	81.46	49.27	32.19	136.63	163.12	60.43	-86.92	132.19	121.39	-6.21	-232.61	-160.69	-160.69	-171.67
1997-P	86.11	54.29	31.82	150.80	183.71	64.58	-97.50	140.64	129.58	-5.94	-261.81	-185.75	-185.75	-190.20
1998-P	91.08	59.74	31.34	166.52	207.03	68.94	-109.45	149.63	138.26	-5.63	-293.10	-212.68	-212.68	-209.36
1999-P	96.40	65.68	30.71	184.04	233.37	73.52	-122.85	159.20	147.49	-5.28	-327.58	-242.58	-242.58	-230.16
2000-P	102.07	72.16	29.91	203.62	263.11	78.32	-137.81	169.40	157.31	-4.91	-365.34	-275.54	-275.54	-252.53
Yr/Yr	15.71	-11.52	21.82	-7.08	9.76	6.11	732.31	7.22	5.25	-3.02	21.32	33.93	33.93	18.34
1987-	36.15	95.30	26.53	-0.47	25.25	6.39	116.53	17.38	14.27	-17.41	10.90	17.86	17.86	10.88
1988-	-7.91	64.23	-26.04	16.66	20.73	22.19	32.14	12.64	7.48	-21.65	-12.44	-23.34	-23.34	-21.06
1989-P	5.90	-1.77	10.19	19.22	22.34	18.54	24.99	6.19	6.05	7.99	12.18	14.15	14.15	9.23
1990-P	12.20	38.39	-0.83	7.24	12.08	10.73	20.54	6.33	1.41	-31.83	-2.49	-6.99	-6.99	-5.21
1991-P	8.14	20.33	-0.32	9.64	12.52	9.50	14.96	8.22	7.35	11.77	0.08	-5.22	-5.22	-5.66
1992-P	6.07	14.46	-0.96	9.99	12.34	8.22	12.81	7.02	6.02	-14.06	6.03	6.04	6.04	3.04
1993-P	5.49	12.22	-1.03	10.06	12.34	7.50	12.15	6.41	6.19	-8.82	8.47	9.87	9.87	5.53
1994-P	5.47	11.23	-0.85	10.18	12.37	7.28	11.93	6.41	6.22	-9.98	8.90	10.55	10.55	6.20
1995-P	5.55	10.70	-0.79	10.36	12.41	7.14	11.79	6.41	6.55	-6.98	10.89	13.52	13.52	8.64
1996-P	5.65	10.39	-0.87	10.37	12.51	7.00	11.94	6.41	6.74	-4.59	12.51	15.79	15.79	10.71
1997-P	5.71	10.19	-1.13	10.37	12.62	6.87	12.17	6.40	6.75	-4.27	12.56	15.59	15.59	10.79
1998-P	5.77	10.05	-1.53	10.42	12.69	6.75	12.26	6.39	6.69	-5.28	11.95	14.50	14.50	10.08
1999-P	5.84	9.94	-1.99	10.52	12.73	6.64	12.24	6.40	6.68	-6.15	11.76	14.06	14.06	9.93
2000-P	5.89	9.86	-2.61	10.64	12.74	6.53	12.18	6.40	6.66	-7.10	11.53	13.59	13.59	9.72

May 24, 1989

Table 2  
Gross Stocks of Claims on and Liabilities to Foreigners \*  
(Mil. \$)

Years	Net Debt (Excl. Gold)		Portfolio Claims on Foreigners		Portfolio Liabilities to Foreigners		Direct Investment Claims: BEA	Direct Investment Liabilities: BEA	Direct Investment Claims: Adjusted	Direct Investment Liabilities: Adjusted
	Private	Government	Private	Government	Private	Government				
1986-	-217114.3	124375.2	749968.8	275429.5	253047.1	202121.1	547892.8	290137.0		
1987-	-353756.8	125244.9	912299.0	299965.0	287509.0	244131.2	649488.3	343452.0		
1988-	-457077.8	124394.9	1007376.0	359040.3	321617.3	286623.0	741990.5	400637.8		
1989-P	-582441.5	839691.5	1155354.0	391986.0	338263.3	337334.0	785176.8	466055.5		
1990-P	-715960.3	124278.8	1304274.0	422610.3	355564.0	388994.8	823793.8	532275.5		
1991-P	-848661.3	1010620.0	1466980.0	452346.8	375141.3	440372.5	865869.3	600193.3		
1992-P	-986983.0	1116394.0	1647902.0	489947.0	396889.8	492694.5	911403.0	671099.8		
1993-P	-1137014.0	132278.8	1851343.0	526365.8	420395.0	547018.0	960081.0	746155.0		
1994-P	-1301566.0	134278.8	2080357.0	564640.3	445477.0	604276.8	1011813.0	826428.5		
1995-P	-1484268.0	136278.8	2338758.0	604842.0	472043.0	665322.8	1066596.0	912938.0		
1996-P	-1690832.0	138278.8	2631772.0	647058.8	500061.5	730957.3	1124492.0	1006680.0		
1997-P	-1925604.0	140278.8	2964325.0	691388.8	529541.0	801959.5	1185603.0	1108660.0		
1998-P	-2190869.0	142278.8	3340742.0	737935.5	560522.0	879106.8	1250065.0	1219910.0		
1999-P	-2489315.0	144278.8	3766003.0	786810.3	593063.5	963195.0	1318040.0	1341515.0		
2000-P	-2824309.0	146278.8	4245936.0	838128.5	627240.8	1055048.0	1388705.0	1474619.0		
Yr/Yr	215.7	8.7	31.4	19.6	14.7	13.6	19.8	11.2		
1986-	62.9	0.7	21.6	8.9	13.6	20.8	18.5	18.4		
1987-	29.2	0.7	10.4	19.7	11.9	17.4	14.2	16.7		
1988-	27.4	-0.1	14.7	19.2	5.2	17.7	5.8	16.3		
1989-P	22.9	1.6	12.9	7.8	5.1	15.3	4.9	14.2		
1990-P	18.5	1.6	12.5	7.7	5.8	13.2	5.1	12.8		
1991-P	16.3	1.6	12.3	7.6	5.8	11.9	5.3	11.8		
1992-P	15.2	1.5	12.4	7.4	5.9	11.0	5.3	11.2		
1993-P	14.5	1.5	12.4	7.3	6.0	10.5	5.4	10.8		
1994-P	14.0	1.5	12.4	7.1	6.0	10.1	5.4	10.5		
1995-P	13.9	1.5	12.5	7.0	5.9	9.9	5.4	10.3		
1996-P	13.9	1.4	12.6	6.9	5.9	9.7	5.4	10.1		
1997-P	13.8	1.4	12.7	6.7	5.9	9.6	5.4	10.0		
1998-P	13.6	1.4	12.7	6.6	5.8	9.6	5.4	10.0		
1999-P	13.5	1.4	12.7	6.5	5.8	9.5	5.4	9.9		
2000-P										

\*Data are annual averages, not end of period.

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Table 3  
Rate of Return on External Assets  
(Percent)

Years	Implicit Portfolio Interest Rates			Rates of Return on Dir. Investment (Adj.)		
	Private Claims	Government Claims	Private Liabilities	Government Liabilities	Receipts	Payments
1986-	7.30	5.20	5.40	8.40	7.03	1.90
1987-	6.74	4.24	5.43	8.11	7.99	3.11
1988-	7.29	4.75	5.92	8.36	6.48	4.34
1989-P	7.95	4.42	6.34	8.97	6.49	3.62
1990-P	7.84	4.42	6.29	9.21	6.95	4.60
1991-P	7.85	4.54	6.29	9.36	7.15	4.70
1992-P	7.85	4.65	6.29	9.41	7.20	4.82
1993-P	7.85	4.68	6.29	9.42	7.21	4.86
1994-P	7.85	4.68	6.29	9.42	7.22	4.88
1995-P	7.85	4.68	6.29	9.42	7.23	4.89
1996-P	7.85	4.68	6.29	9.42	7.24	4.90
1997-P	7.85	4.68	6.29	9.42	7.26	4.90
1998-P	7.85	4.68	6.29	9.42	7.28	4.90
1999-P	7.85	4.68	6.29	9.42	7.31	4.90
2000-P	7.85	4.68	6.29	9.42	7.34	4.90
Yr/Yr	-16.72	6.86	-15.67	-10.67	-1.84	-19.96
1986-	-7.61	-18.48	0.56	-3.46	13.60	63.51
1987-	8.10	12.11	8.99	3.07	-18.92	39.51
1988-	9.17	-7.07	7.07	7.34	0.23	-16.56
1989-P	-1.42	0.16	-0.79	2.72	6.98	21.51
1991-P	0.06	2.67	0.00	1.62	2.89	6.78
1992-P	0.00	2.38	0.00	0.56	0.74	2.38
1993-P	0.00	0.66	0.00	0.05	0.14	0.94
1994-P	0.00	-0.08	0.00	-0.01	0.08	0.42
1995-P	0.00	0.00	0.00	0.00	0.13	0.21
1996-P	0.00	0.00	0.00	0.00	0.21	0.11
1997-P	0.00	0.00	0.00	0.00	0.27	0.05
1998-P	0.00	0.00	0.00	0.00	0.31	0.01
1999-P	0.00	0.00	0.00	0.00	0.38	-0.02
2000-P	0.00	0.00	0.00	0.00	0.43	-0.05

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Table 4  
Impact of 100 Basis Pt. Increase in Int. Rates on U.S. International Transactions

(Deviation from Control Solution -- Shock less Control)

Years	Direct Inv. Receipt (\$)	Direct Inv. Pmts (\$)	Net Direct Inv. Receipt (\$)	Portfolio Inv. Receipts (\$)	Pvt. Portfolio Income Payments (\$)	Govt. Portfolio Income Payments (\$)	Net Portfolio Income Receipts (\$)	Other Service Receipts (\$)	Other Service Pmts (\$)	Net Other Serv + Tran (\$)	Current Account Balance (\$)	Net Exports G+S (NIA) (\$)	March Trade Balance (BOP) (\$)
1986-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1987-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1988-	0.0	0.0	0.0	7.2	6.5	1.0	-0.4	0.0	0.0	0.0	0.0	0.0	0.0
1989-P	0.0	0.0	0.0	9.4	9.8	2.5	-2.9	0.0	0.0	-0.0	-0.3	0.7	0.1
1990-P	0.0	0.0	0.0	10.2	11.1	3.7	-4.6	0.0	0.0	0.0	-2.9	-0.4	-0.0
1991-P	0.0	0.0	0.0	11.2	12.6	4.5	-5.9	0.0	0.0	0.0	-4.6	-0.9	-0.0
1992-P	0.0	0.0	0.0	12.2	14.4	5.0	-7.1	0.0	0.0	0.0	-5.9	-1.4	0.0
1993-P	0.0	0.0	0.0	13.2	16.4	5.3	-8.5	0.0	0.0	0.0	-7.1	-2.1	0.0
1994-P	0.0	0.0	0.0	14.3	18.6	5.7	-10.0	0.0	0.0	0.0	-8.4	-3.1	0.0
1995-P	0.0	0.0	0.0	15.5	21.2	6.1	-11.8	0.0	0.0	0.0	-10.0	-4.2	0.0
1996-P	0.0	0.0	0.0	16.8	24.1	6.5	-13.9	0.0	0.0	0.0	-11.8	-5.6	0.0
1997-P	0.0	0.0	0.0	18.1	27.4	7.0	-16.2	0.0	0.0	0.0	-13.8	-7.3	0.0
1998-P	0.0	0.0	0.0	19.6	31.2	7.4	-19.0	0.0	0.0	0.0	-16.2	-9.2	0.0
1999-P	0.0	0.0	0.0	21.3	35.5	7.9	-22.1	0.0	0.0	0.0	-19.0	-11.5	0.0
2000-P	0.0	0.0	0.0					0.0	-0.0	0.0	-22.1	-14.2	0.0

(Percent Deviation from Control Solution)

Years	Direct Inv. Receipt (\$)	Direct Inv. Pmts (\$)	Net Direct Inv. Receipt (\$)	Portfolio Inv. Receipts (\$)	Pvt. Portfolio Income Payments (\$)	Govt. Portfolio Income Payments (\$)	Net Portfolio Income Receipts (\$)	Other Service Receipts (\$)	Other Service Pmts (\$)	Net Other Serv + Tran (\$)	Current Account Balance (\$)	Net Exports G+S (NIA) (\$)	March Trade Balance (BOP) (\$)
1986-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1987-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1988-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1989-P	0.0	0.0	0.0	10.0	9.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1990-P	0.0	0.0	0.0	12.2	12.2	6.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1991-P	0.0	0.0	0.0	12.2	12.4	8.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1992-P	0.0	0.0	0.0	12.1	12.5	9.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1993-P	0.0	0.0	0.0	12.0	12.7	10.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1994-P	0.0	0.0	0.0	11.8	12.8	10.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1995-P	0.0	0.0	0.0	11.6	13.0	10.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1996-P	0.0	0.0	0.0	11.3	13.1	10.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1997-P	0.0	0.0	0.0	11.1	13.1	10.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1998-P	0.0	0.0	0.0	10.9	13.2	10.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1999-P	0.0	0.0	0.0	10.7	13.4	10.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2000-P	0.0	0.0	0.0	10.4	13.5	10.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Table 5  
Impact of 100 Basis Pt. Increase in Int. Rates on U.S. International Transactions

(Deviation from Control Solution -- Shock less Control)

Years	Net Debt (Excl. Gold)		Portfolio Claims on Foreigners		Portfolio Liabilities to Foreigners		Direct Investment Claims: BEA	Direct Investment Liabilities: BEA	Direct Investment Claims: Adjusted	Direct Investment Liabilities: Adjusted
	Private	Government	Private	Government	Private	Government				
1986-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1987-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1988-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1989-P	-26.3	-13.0	-13.0	0.0	13.0	0.0	0.0	0.0	0.0	0.0
1990-P	-1991.3	-995.8	-995.8	0.0	996.0	0.0	0.0	0.0	0.0	0.0
1991-P	-6016.3	-3007.8	-3007.8	0.0	3008.0	0.0	0.0	0.0	0.0	0.0
1992-P	-11409.3	-5704.0	-5704.0	0.0	5705.0	0.0	0.0	0.0	0.0	0.0
1993-P	-18055.0	-9026.0	-9026.0	0.0	9029.0	0.0	0.0	0.0	0.0	0.0
1994-P	-25991.0	-12994.0	-12994.0	0.0	12997.0	0.0	0.0	0.0	0.0	0.0
1995-P	-35370.0	-17684.0	-17684.0	0.0	17686.0	0.0	0.0	0.0	0.0	0.0
1996-P	-46431.0	-23214.0	-23214.0	0.0	23217.0	0.0	0.0	0.0	0.0	0.0
1997-P	-59451.0	-29723.0	-29723.0	0.0	29728.0	0.0	0.0	0.0	0.0	0.0
1998-P	-74738.0	-37367.0	-37367.0	0.0	37371.0	0.0	0.0	0.0	0.0	0.0
1999-P	-92639.0	-46317.0	-46317.0	0.0	46321.0	0.0	0.0	0.0	0.0	0.0
2000-P	-113534.0	-56765.0	-56765.0	0.0	56772.0	0.0	0.0	0.0	0.0	0.0

(Percent Deviation from Control Solution)

Years	Net Debt (Excl. Gold)		Portfolio Claims on Foreigners		Portfolio Liabilities to Foreigners		Direct Investment Claims: BEA	Direct Investment Liabilities: BEA	Direct Investment Claims: Adjusted	Direct Investment Liabilities: Adjusted
	Private	Government	Private	Government	Private	Government				
1986-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1987-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1988-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1989-P	0.0	-0.1	-0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1990-P	0.3	-0.1	-0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0
1991-P	0.7	-0.3	-0.3	0.0	0.2	0.0	0.0	0.0	0.0	0.0
1992-P	1.2	-0.5	-0.5	0.0	0.3	0.0	0.0	0.0	0.0	0.0
1993-P	1.6	-0.7	-0.7	0.0	0.5	0.0	0.0	0.0	0.0	0.0
1994-P	2.0	-0.9	-0.9	0.0	0.6	0.0	0.0	0.0	0.0	0.0
1995-P	2.4	-1.2	-1.2	0.0	0.8	0.0	0.0	0.0	0.0	0.0
1996-P	2.7	-1.4	-1.4	0.0	0.9	0.0	0.0	0.0	0.0	0.0
1997-P	3.1	-1.6	-1.6	0.0	1.0	0.0	0.0	0.0	0.0	0.0
1998-P	3.4	-1.8	-1.8	0.0	1.1	0.0	0.0	0.0	0.0	0.0
1999-P	3.7	-2.0	-2.0	0.0	1.2	0.0	0.0	0.0	0.0	0.0
2000-P	4.0	-2.2	-2.2	0.0	1.3	0.0	0.0	0.0	0.0	0.0

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Table 6

Impact of 100 Basis Pt. Increase in Int. Rates on U.S. International Transactions

(Deviation from Control Solution -- Shock less Control)

Years	Implicit Portfolio Interest Rates			Rates of Return on Dir. Investment (Adj.)		
	Private Claims	Government Claims	Private Liabilities	Government Liabilities	Receipts	Payments
1986-	0.00	0.00	0.00	0.00	0.00	0.00
1987-	0.00	0.00	0.00	0.00	0.00	0.00
1988-	0.00	0.00	0.00	0.00	0.00	0.00
1989-P	0.85	0.03	0.56	0.27	0.00	0.00
1990-P	1.03	0.12	0.75	0.61	0.00	0.00
1991-P	1.02	0.23	0.75	0.82	0.00	0.00
1992-P	1.02	0.34	0.75	0.92	0.00	0.00
1993-P	1.02	0.41	0.75	0.95	0.00	0.00
1994-P	1.02	0.42	0.75	0.95	0.00	0.00
1995-P	1.02	0.42	0.75	0.95	0.00	0.00
1996-P	1.02	0.42	0.75	0.95	0.00	0.00
1997-P	1.02	0.42	0.75	0.95	0.00	0.00
1998-P	1.02	0.42	0.75	0.95	0.00	0.00
1999-P	1.02	0.42	0.75	0.95	0.00	0.00
2000-P	1.02	0.42	0.75	0.95	0.00	0.00

(Percent Deviation from Control Solution)

Years	Implicit Portfolio Interest Rates			Rates of Return on Dir. Investment (Adj.)		
	Private Claims	Government Claims	Private Liabilities	Government Liabilities	Receipts	Payments
1986-	0.0	0.0	0.0	0.0	0.0	0.0
1987-	0.0	0.0	0.0	0.0	0.0	0.0
1988-	0.0	0.0	0.0	0.0	0.0	0.0
1989-P	10.7	0.8	8.9	3.0	0.0	0.0
1990-P	13.1	2.7	12.0	6.6	0.0	0.0
1991-P	13.0	5.1	12.0	8.8	0.0	0.0
1992-P	13.0	7.3	12.0	9.8	0.0	0.0
1993-P	13.0	8.8	12.0	10.1	0.0	0.0
1994-P	13.0	9.0	12.0	10.1	0.0	0.0
1995-P	13.0	9.0	12.0	10.1	0.0	0.0
1996-P	13.0	9.0	12.0	10.1	0.0	0.0
1997-P	13.0	9.0	12.0	10.1	0.0	0.0
1998-P	13.0	9.0	12.0	10.1	0.0	0.0
1999-P	13.0	9.0	12.0	10.1	0.0	0.0
2000-P	13.0	9.0	12.0	10.1	0.0	0.0

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Table 7  
Impact of Lower Growth Rate of External Assets on U.S. International Transactions

(Deviation from Control Solution -- Shock less Control)

Years	Direct Inv. Income Receipt (\$)	Direct Inv. Pmts (\$)	Net Direct Inv. Receipt (\$)	Portfolio Inv. Receipts (\$)	Pvt. Portfolio Income Payments (\$)	Govt. Portfolio Income Payments (\$)	Net Portfolio Income Receipts (\$)	Other Service Receipts (\$)	Other Service Pmts (\$)	Net Other Serv + Tran (\$)	Current Account Balance (\$)	Net Exports G+S (NIA) (\$)	Merch Trade Balance (BOP) (\$)
1986-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1987-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1988-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1989-P	0.0	0.0	0.0	-1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1990-P	0.0	0.0	0.0	-4.6	-3.6	0.0	-0.9	0.0	0.0	0.0	-0.3	-0.3	0.0
1991-P	0.0	0.0	0.0	-8.4	-6.6	0.0	-1.8	0.0	0.0	0.0	-0.9	-0.9	0.0
1992-P	0.0	0.0	0.0	-13.0	-10.2	0.0	-2.9	0.0	0.0	-0.0	-1.8	-1.8	0.0
1993-P	0.0	0.0	0.0	-18.5	-14.3	0.0	-4.2	0.0	0.0	0.0	-2.9	-2.9	0.0
1994-P	0.0	0.0	0.0	-25.0	-19.2	0.0	-5.8	0.0	0.0	0.0	-4.2	-4.2	0.0
1995-P	0.0	0.0	0.0	-32.7	-25.0	0.0	-7.7	0.0	0.0	-0.0	-5.8	-5.8	0.0
1996-P	0.0	0.0	0.0	-41.8	-31.7	0.0	-10.1	0.0	0.0	-0.0	-7.7	-7.7	0.0
1997-P	0.0	0.0	0.0	-52.4	-39.5	0.0	-12.9	0.0	0.0	-0.0	-10.1	-10.1	0.0
1998-P	0.0	0.0	0.0	-64.8	-48.6	0.0	-16.3	0.0	0.0	0.0	-12.9	-12.9	0.0
1999-P	0.0	0.0	0.0	-79.4	-59.1	0.0	-20.3	0.0	0.0	-0.0	-16.3	-16.3	0.0
2000-P	0.0	0.0	0.0	-96.3	-71.2	0.0	-25.1	0.0	0.0	-0.0	-20.3	-20.3	0.0

(Percent Deviation from Control Solution)

Years	Direct Inv. Income Receipt (\$)	Direct Inv. Pmts (\$)	Net Direct Inv. Receipt (\$)	Portfolio Inv. Receipts (\$)	Pvt. Portfolio Income Payments (\$)	Govt. Portfolio Income Payments (\$)	Net Portfolio Income Receipts (\$)	Other Service Receipts (\$)	Other Service Pmts (\$)	Net Other Serv + Tran (\$)	Current Account Balance (\$)	Net Exports G+S (NIA) (\$)	Merch Trade Balance (BOP) (\$)
1986-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1987-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1988-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1989-P	0.0	0.0	0.0	-2.0	-1.6	0.0	-0.9	0.0	0.0	0.0	0.0	0.0	0.0
1990-P	0.0	0.0	0.0	-6.0	-4.5	0.0	-2.9	0.0	0.0	0.0	-0.3	-0.3	0.0
1991-P	0.0	0.0	0.0	-10.0	-7.3	0.0	-4.2	0.0	0.0	0.0	-0.9	-0.9	0.0
1992-P	0.0	0.0	0.0	-14.1	-9.9	0.0	-5.8	0.0	0.0	0.0	-1.8	-1.8	0.0
1993-P	0.0	0.0	0.0	-18.2	-12.5	0.0	-7.7	0.0	0.0	0.0	-2.9	-2.9	0.0
1994-P	0.0	0.0	0.0	-22.3	-14.9	0.0	-10.1	0.0	0.0	0.0	-4.2	-4.2	0.0
1995-P	0.0	0.0	0.0	-26.4	-17.2	0.0	-12.9	0.0	0.0	0.0	-5.8	-5.8	0.0
1996-P	0.0	0.0	0.0	-30.6	-19.4	0.0	-16.3	0.0	0.0	0.0	-7.7	-7.7	0.0
1997-P	0.0	0.0	0.0	-34.7	-21.5	0.0	-20.3	0.0	0.0	-0.0	-10.1	-10.1	0.0
1998-P	0.0	0.0	0.0	-38.9	-23.5	0.0	-25.1	0.0	0.0	0.0	-12.9	-12.9	0.0
1999-P	0.0	0.0	0.0	-43.1	-25.3	0.0	-30.3	0.0	0.0	-0.0	-16.3	-16.3	0.0
2000-P	0.0	0.0	0.0	-47.3	-27.1	0.0	-35.1	0.0	0.0	-0.0	-20.3	-20.3	0.0

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Table 8  
Impact of Lower Growth Rate of External Assets on U.S. International Transactions

(Deviation from Control Solution -- Shock Less Control)

Years	Net Debt (Excl. Gold)		Portfolio Claims on Foreigners		Portfolio Liabilities to Foreigners		Direct Investment Claims: BEA	Direct Investment Liabilities: BEA	Direct Investment Claims: Adjusted	Direct Investment Liabilities: Adjusted
	Private	Government	Private	Government	Private	Government				
1986-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1987-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1988-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1989-P	-135.3	-22396.3	0.0	0.0	-22261.0	0.0	0.0	0.0	0.0	0.0
1990-P	-822.3	-63888.0	0.0	0.0	-63066.0	0.0	0.0	0.0	0.0	0.0
1991-P	-2286.5	-113920.8	0.0	0.0	-11633.0	0.0	0.0	0.0	0.0	0.0
1992-P	-4725.0	-173868.0	0.0	0.0	-169142.0	0.0	0.0	0.0	0.0	0.0
1993-P	-8375.0	-245304.0	0.0	0.0	-236929.0	0.0	0.0	0.0	0.0	0.0
1994-P	-13510.0	-330032.8	0.0	0.0	-316523.0	0.0	0.0	0.0	0.0	0.0
1995-P	-20461.0	-430125.0	0.0	0.0	-409662.0	0.0	0.0	0.0	0.0	0.0
1996-P	-29608.0	-547941.0	0.0	0.0	-518333.0	0.0	0.0	0.0	0.0	0.0
1997-P	-41397.0	-686187.0	0.0	0.0	-644789.0	0.0	0.0	0.0	0.0	0.0
1998-P	-56356.0	-847957.0	0.0	0.0	-791600.0	0.0	0.0	0.0	0.0	0.0
1999-P	-75094.0	-1036784.0	0.0	0.0	-961690.0	0.0	0.0	0.0	0.0	0.0
2000-P	-98321.0	-1256700.0	0.0	0.0	-1158376.0	0.0	0.0	0.0	0.0	0.0

(Percent Deviation from Control Solution)

Years	Net Debt (Excl. Gold)		Portfolio Claims on Foreigners		Portfolio Liabilities to Foreigners		Direct Investment Claims: BEA	Direct Investment Liabilities: BEA	Direct Investment Claims: Adjusted	Direct Investment Liabilities: Adjusted
	Private	Government	Private	Government	Private	Government				
1986-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1987-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1988-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1989-P	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1990-P	0.1	-2.7	0.0	0.0	-1.9	0.0	0.0	0.0	0.0	0.0
1991-P	0.3	-7.0	0.0	0.0	-4.8	0.0	0.0	0.0	0.0	0.0
1992-P	0.5	-11.3	0.0	0.0	-7.6	0.0	0.0	0.0	0.0	0.0
1993-P	0.7	-15.6	0.0	0.0	-10.3	0.0	0.0	0.0	0.0	0.0
1994-P	1.0	-19.9	0.0	0.0	-12.8	0.0	0.0	0.0	0.0	0.0
1995-P	1.4	-24.1	0.0	0.0	-15.2	0.0	0.0	0.0	0.0	0.0
1996-P	1.8	-28.4	0.0	0.0	-17.5	0.0	0.0	0.0	0.0	0.0
1997-P	2.1	-32.6	0.0	0.0	-19.7	0.0	0.0	0.0	0.0	0.0
1998-P	2.6	-36.8	0.0	0.0	-21.8	0.0	0.0	0.0	0.0	0.0
1999-P	3.0	-41.1	0.0	0.0	-23.7	0.0	0.0	0.0	0.0	0.0
2000-P	3.5	-45.3	0.0	0.0	-25.5	0.0	0.0	0.0	0.0	0.0
		-49.5	0.0	0.0	-27.3	0.0	0.0	0.0	0.0	0.0

May 24, 1989

Table 9

Impact of Lower Growth Rate of External Assets on U.S. International Transactions

(Deviation from Control Solution -- Shock less Control)

Years	Implicit Portfolio Interest Rates			Rates of Return on Dir. Investment (Adj.)		
	Private Claims	Government Claims	Private Liabilities	Government Liabilities	Receipts	Payments
1986-	0.00	0.00	0.00	0.00	0.00	0.00
1987-	0.00	0.00	0.00	0.00	0.00	0.00
1988-	0.00	0.00	0.00	0.00	0.00	0.00
1989-P	0.00	0.00	0.00	0.00	0.00	0.00
1990-P	0.00	0.00	0.00	0.00	0.00	0.00
1991-P	0.00	0.00	0.00	0.00	0.00	0.00
1992-P	0.00	0.00	0.00	0.00	0.00	0.00
1993-P	0.00	0.00	0.00	0.00	0.00	0.00
1994-P	0.00	0.00	0.00	0.00	0.00	0.00
1995-P	0.00	0.00	0.00	0.00	0.00	0.00
1996-P	0.00	0.00	0.00	0.00	0.00	0.00
1997-P	0.00	0.00	0.00	0.00	0.00	0.00
1998-P	0.00	0.00	0.00	0.00	0.00	0.00
1999-P	0.00	0.00	0.00	0.00	0.00	0.00
2000-P	0.00	0.00	0.00	0.00	0.00	0.00

(Percent Deviation from Control Solution)

Years	Implicit Portfolio Interest Rates			Rates of Return on Dir. Investment (Adj.)		
	Private Claims	Government Claims	Private Liabilities	Government Liabilities	Receipts	Payments
1986-	0.0	0.0	0.0	0.0	0.0	0.0
1987-	0.0	0.0	0.0	0.0	0.0	0.0
1988-	0.0	0.0	0.0	0.0	0.0	0.0
1989-P	0.0	0.0	0.0	0.0	0.0	0.0
1990-P	0.0	0.0	0.0	0.0	0.0	0.0
1991-P	0.0	0.0	0.0	0.0	0.0	0.0
1992-P	0.0	0.0	0.0	0.0	0.0	0.0
1993-P	0.0	0.0	0.0	0.0	0.0	0.0
1994-P	0.0	0.0	0.0	0.0	0.0	0.0
1995-P	0.0	0.0	0.0	0.0	0.0	0.0
1996-P	0.0	0.0	0.0	0.0	0.0	0.0
1997-P	0.0	0.0	0.0	0.0	0.0	0.0
1998-P	0.0	0.0	0.0	0.0	0.0	0.0
1999-P	0.0	0.0	0.0	0.0	0.0	0.0
2000-P	0.0	0.0	0.0	0.0	0.0	0.0

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