Topics for Today

1.) National Income Accounting

2.) The "Twin Deficits"

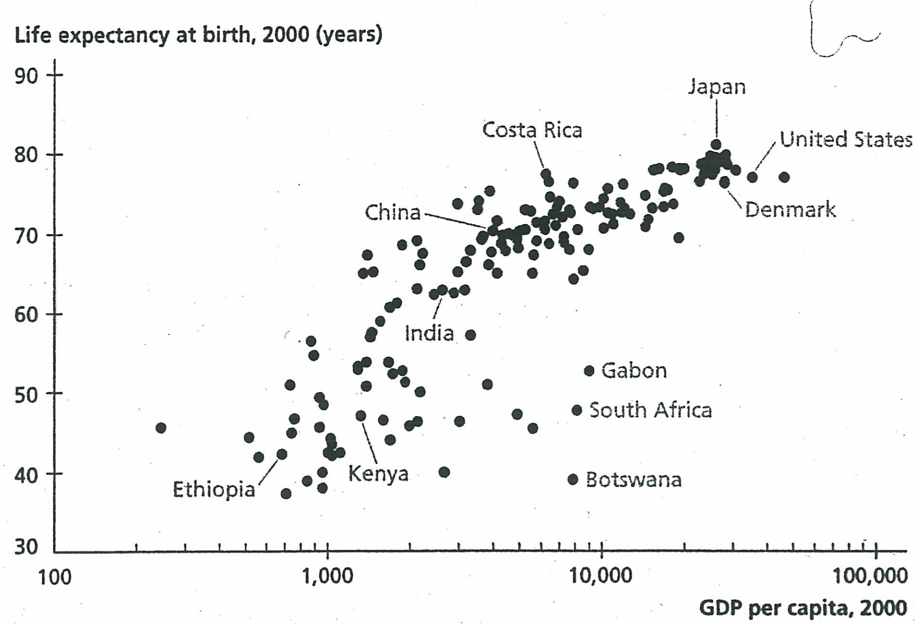
3.) The Balance of Payments

A Comment on GDP

"GDP does not allow for the health of our children, the quality of their education, or the joy of their play. It does not include the beauty of our poetry or the strength of our marriages, the intelligence of our public debate or the integrity of our public officials. It measures neither our courage, nor our wisdom, nor our devotion to our country. It measures everything, in short, except that which makes life worthwhile, ..."

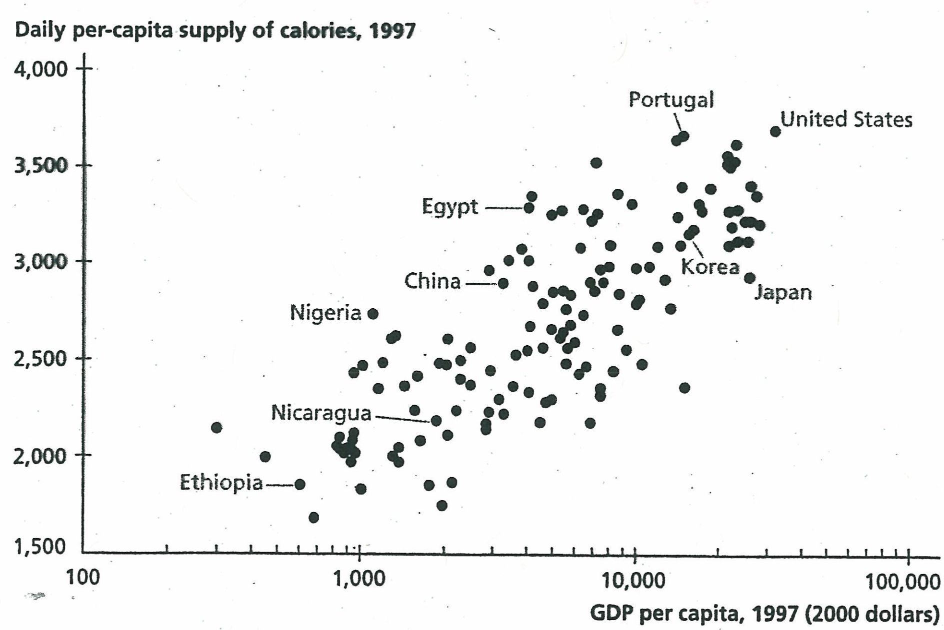
- Robert Kennedy, 1968

FIGURE 6.2
Life Expectancy Versus GDP per Capita



Source: Heston et al. (2002), World Bank (2003b).

FIGURE 6.1
Nutrition Versus GDP per Capita



Source: FAOSTAT database, Heston et al. (2002).

GDP: Gross Domestic Product

GDP is an attempt to summarize in a single number the dollar value of the economy's activity during a given time period.

5 Things to Know About GDP

1.) GDP can be computed by adding-up either total expenditure, total income, or total production.

2.) GDP is a rate, i.e., a flow per unit time.

3.) GDP only counts market transactions.

4.) GDP only includes sales & purchases of final goods. Used + intermediate goods are excluded.

5.) GDP is measured in dollars, and can change when either prices or quantities change.

<u>GDP vs. GNP</u>

GDP = Gross <u>Domestic</u> Product

= Output Produced within the Country

GNP = Gross <u>National</u> Product

= Output Produced by domestic factors of production

NFP = Net Factor Payments

= (Foreign Earnings of Domestically-Owned Factors)

− (Domestic Earnings of Foreign-Owned Factors)

GNP = GDP + NFP

For Canada, GDP is slightly larger than GNP.
For the U.S., GDP is slightly smaller than GNP

Bureau of Economic Analysis
National Income and Product Accounts Table

Table 1.1.5. Gross Domestic Product

[Billions of dollars]

Today is: 1/17/2008 Last Revised on December 20, 2007 Next Release Date January 30, 2008

Line		2002	2003	2004	2005	2006
1	**Gross domestic product**	**10,469.6**	**10,960.8**	**11,685.9**	**12,433.9**	**13,194.7**
2	**Personal consumption expenditures**	**7,350.7**	**7,703.6**	**8,195.9**	**8,707.8**	**9,224.5**
3	Durable goods	923.9	942.7	983.9	1,023.9	1,048.9
4	Nondurable goods	2,079.6	2,190.2	2,343.7	2,516.2	2,688.0
5	Services	4,347.2	4,570.8	4,868.3	5,167.8	5,487.6
6	**Gross private domestic investment**	**1,582.1**	**1,664.1**	**1,888.6**	**2,077.2**	**2,209.2**
7	Fixed investment	1,570.2	1,649.8	1,830.0	2,040.3	2,162.5
8	Nonresidential	1,066.3	1,077.4	1,154.5	1,272.1	1,397.7
9	Structures	279.2	277.2	298.2	334.6	405.1
10	Equipment and software	787.1	800.2	856.3	937.5	992.6
11	Residential	503.9	572.4	675.5	768.2	764.8
12	Change in private inventories	11.9	14.3	58.6	36.9	46.7
13	**Net exports of goods and services**	**-424.4**	**-499.4**	**-615.4**	**-714.6**	**-762.0**
14	Exports	1,005.9	1,040.8	1,182.4	1,309.4	1,467.6
15	Goods	697.6	724.4	818.3	907.0	1,030.5
16	Services	308.4	316.4	364.1	402.4	437.1
17	Imports	1,430.3	1,540.2	1,797.8	2,023.9	2,229.6
18	Goods	1,189.3	1,283.9	1,499.5	1,702.0	1,880.4
19	Services	241.0	256.2	298.3	322.0	349.2
20	**Government consumption expenditures and gross investment**	**1,961.1**	**2,092.5**	**2,216.8**	**2,363.4**	**2,523.0**
21	Federal	679.7	756.4	825.6	878.4	932.5
22	National defense	437.1	497.2	550.7	588.7	624.3
23	Nondefense	242.5	259.2	274.9	289.8	308.2
24	State and local	1,281.5	1,336.0	1,391.2	1,485.0	1,590.5

Things to Note About Expenditure-Based GDP

$(Y = C + I + G + NX)$

1.) Consumption is the largest component of expenditure (about 70 %)

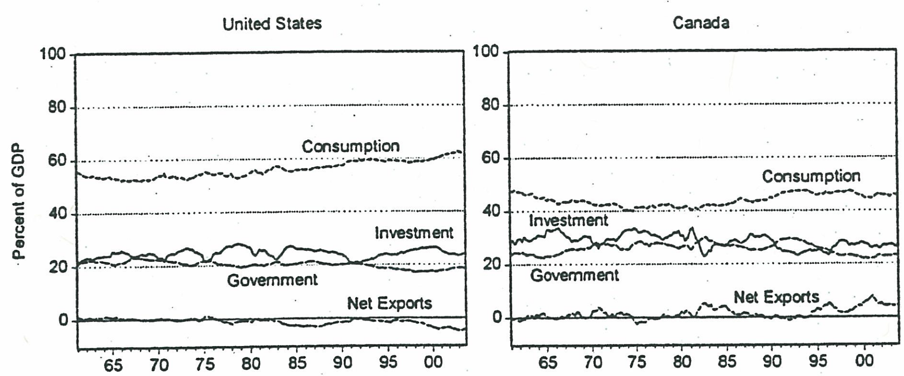
2.) Services is the largest component of consumption (about 60 %)

3.) Investment is the most volatile component of GDP

4.) The government consistently absorbs about 20% of GDP

5.) The U.S. imports about 17% of its GDP and exports about 11%. These shares are more than double what they were 25 years ago.

FIGURE 1.2
GDP Expenditure Components
United States and Canada
1961.1 - 2003.4



Bureau of Economic Analysis
National Income and Product Accounts Table

Table 1.12. National Income by Type of Income

[Billions of dollars]

Today is: 1/17/2008 Last Revised on December 20, 2007 Next Release Date January 30, 2008

Line		2002	2003	2004	2005	2006
1	**National income**	**9,229.3**	**9,632.3**	**10,306.8**	**10,887.6**	**11,655.6**
2	**Compensation of employees**	**6,091.2**	**6,325.4**	**6,656.4**	**7,029.6**	**7,448.3**
3	Wage and salary accruals	4,980.9	5,127.7	5,379.5	5,672.9	6,025.7
4	Government	865.9	904.4	943.1	980.9	1,020.6
5	Other	4,115.0	4,223.3	4,436.4	4,691.9	5,005.1
6	Supplements to wages and salaries	1,110.3	1,197.7	1,276.9	1,356.8	1,422.6
7	Employer contributions for employee pension and insurance funds	745.1	815.6	868.5	927.7	970.7
8	Employer contributions for government social insurance	365.2	382.1	408.3	429.1	451.8
9	**Proprietors' income with IVA and CCAdj**	**768.4**	**811.3**	**911.6**	**969.9**	**1,006.7**
10	Farm	10.6	29.2	37.3	30.8	19.4
11	Nonfarm	757.8	782.1	874.3	939.1	987.4
12	**Rental income of persons with CCAdj**	**152.9**	**133.0**	**118.4**	**42.9**	**54.5**
13	**Corporate profits with IVA and CCAdj**	**886.3**	**993.1**	**1,231.2**	**1,372.8**	**1,553.7**
14	Taxes on corporate income	192.6	243.3	307.4	392.9	453.9
15	Profits after tax with IVA and CCAdj	693.7	749.9	923.9	979.9	1,099.8
16	Net dividends	399.2	424.7	539.5	601.4	698.9
17	Undistributed profits with IVA and CCAdj	294.5	325.1	384.4	378.6	400.9
18	**Net interest and miscellaneous payments**	**520.9**	**524.7**	**491.2**	**558.0**	**598.5**
19	**Taxes on production and imports**	**762.8**	**807.2**	**863.8**	**921.6**	**967.3**
20	**Less: Subsidies** [1]	**38.4**	**47.9**	**44.6**	**58.5**	**49.7**
21	**Business current transfer payments(net)**	**84.3**	**83.8**	**83.0**	**66.5**	**90.2**
22	To persons (net)	37.3	34.3	26.4	37.6	27.2
23	To government (net)	46.6	47.9	48.1	30.7	60.6
24	To the rest of the world (net)	0.3	1.7	8.5	-1.8	2.5
25	**Current surplus of government enterprises** [1]	**0.9**	**1.7**	**-4.2**	**-15.1**	**-13.9**
	Cash flow:					
26	Net cash flow with IVA and CCAdj	1,036.6	1,084.9	1,181.5	1,235.4	1,290.9
27	Undistributed profits with IVA and CCAdj	294.5	325.1	384.4	378.6	400.9
28	Consumption of fixed capital	742.1	759.8	797.1	856.8	890.0
29	Less: Inventory valuation adjustment	-2.2	-13.6	-43.1	-36.2	-36.3
30	Equals: Net cash flow	1,038.9	1,098.5	1,224.6	1,271.6	1,327.2
	Addenda:					
31	Proprietors' income with IVA and CCAdj	768.4	811.3	911.6	969.9	1,006.7
32	Farm	10.6	29.2	37.3	30.8	19.4
33	Proprietors' income with IVA	15.8	34.5	43.2	37.3	26.4
34	Capital consumption adjustment	-5.2	-5.3	-5.8	-6.5	-7.0
35	Nonfarm	757.8	782.1	874.3	939.1	987.4
36	Proprietors' income (without IVA and CCAdj)	646.3	658.0	750.0	853.6	888.8
37	Inventory valuation adjustment	-0.7	-1.7	-5.5	-5.0	-4.0
38	Capital consumption adjustment	112.2	125.8	129.9	90.6	102.6
39	Rental income of persons with CCAdj	152.9	133.0	118.4	42.9	54.5
40	Rental income of persons (without CCAdj)	164.4	145.1	134.1	66.7	70.4

Things to Note About Income-Based GDP

(Y = wages + Profits + Interest)

1.) Labor income is by far the largest category of income. [redacted]

2.) Labor's share is quite stable over time.

3.) Corporate profits are the most volatile component of income.

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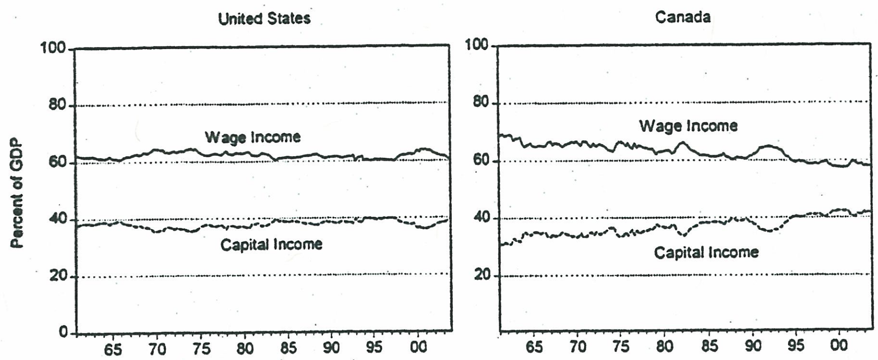
FIGURE 1.1
GDP Income Components
United States and Canada
1961.1 - 2003.4



The "Twin Deficits"

$$Y = C + I + G + NX$$

$$GNP = Y + NFP = C + I + G + (NX + NFP)$$

$$= C + I + G + CA$$

$CA \rightarrow$ current acct.

$$GNP - T - C = I + (G - T) + CA$$

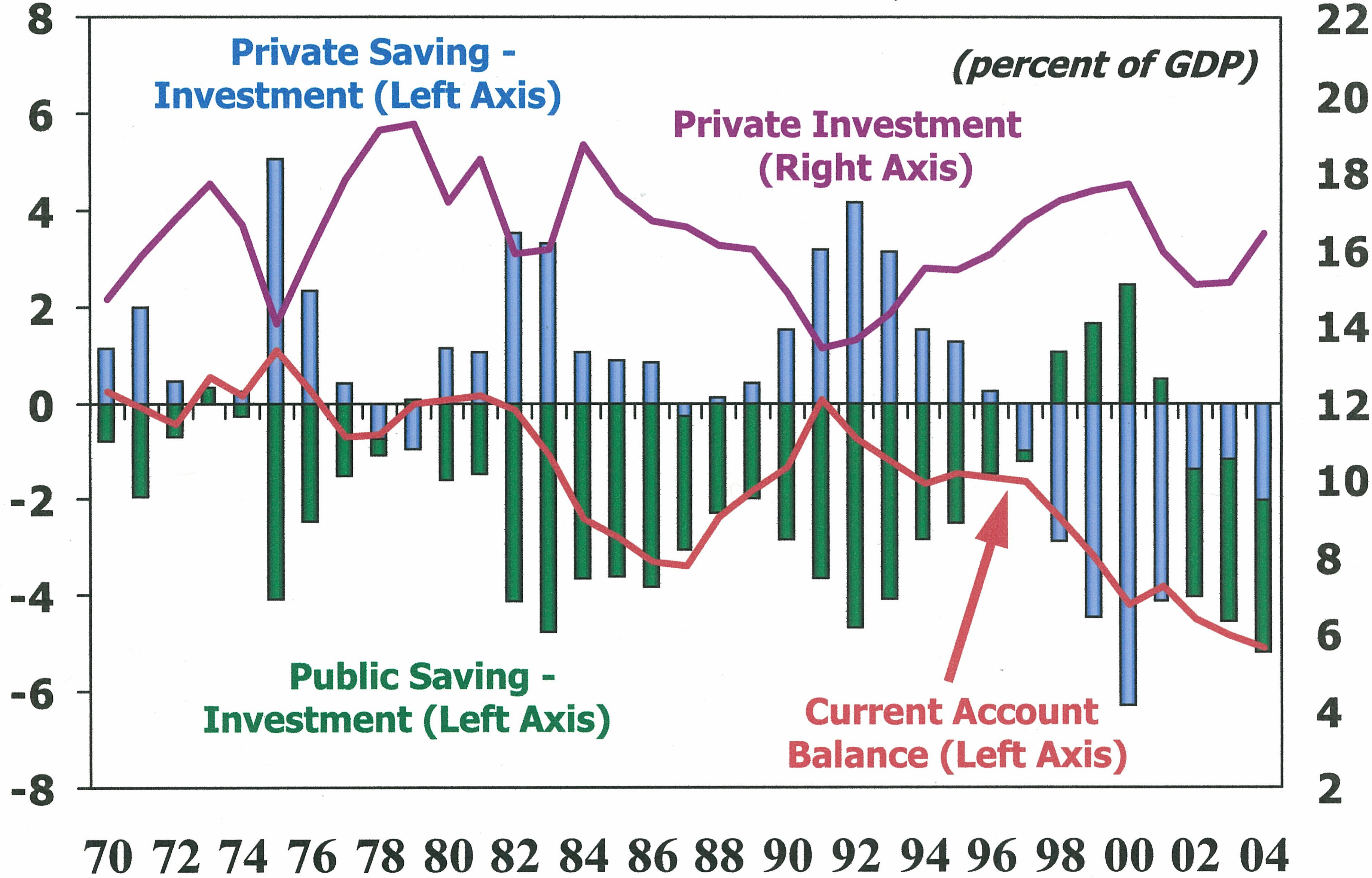
Define $S_g = T - G$ } govt. saving

$$S_p + S_g = I + CA$$

$$-CA = -S_g + (I - S_p)$$

Current Acct. Deficit = Govt. Budget Deficit + $(I - S_p)$

Figure 6: US Current Account and Saving-Investment



The Balance of Payments

A detailed account of the composition and financing of NX.

Current Account = Trade in Goods + Services

Financial Account = Trade in Financial Assets

Current Account = Merchandise Trade
+ Services
+ Investment Income

Financial Account = Portfolio Investment
+ Foreign Direct Investment

By double-entry book-keeping,

$$CA + FA \equiv 0$$

U.S. International Transactions Accounts Data

Today's Date: January 17, 2008 Release Date: December 17, 2007 Next Release Date: March 17, 2008
Earliest Year Revised on December 17, 2007: No Revision

Table 1. U.S. International Transactions

[Millions of dollars]

Line	(Credits +; debits -) [1]	2003	2004	2005	2006
	Current account				
1	**Exports of goods and services and income receipts**	**1,338,325**	**1,559,191**	**1,788,557**	**2,096,165**
2	Exports of goods and services	1,017,757	1,157,250	1,283,070	1,445,703
3	Goods, balance of payments basis[2]	713,415	807,516	894,631	1,023,109
4	Services[3]	304,342	349,734	388,439	422,594
12	Income receipts	320,568	401,942	505,488	650,462
18	**Imports of goods and services and income payments**	**-1,789,819**	**-2,114,926**	**-2,454,871**	**-2,818,047**
19	Imports of goods and services	-1,514,672	-1,769,341	-1,997,441	-2,204,225
20	Goods, balance of payments basis[2]	-1,264,307	-1,477,094	-1,681,780	-1,861,380
21	Services[3]	-250,365	-292,247	-315,661	-342,845
29	Income payments	-275,147	-345,585	-457,430	-613,823
35	**Unilateral current transfers, net**	**-70,607**	**-84,414**	**-88,535**	**-89,595**
	Capital account				
39	**Capital account transactions, net**	**-3,480**	**-2,369**	**-4,054**	**-3,913**
	Financial account				
40	**U.S.-owned assets abroad, excluding financial derivatives (increase/financial outflow (-))**	**-325,424**	**-905,024**	**-426,875**	**-1,055,176**
41	U.S. official reserve assets	1,523	2,805	14,096	2,374
42	Gold[7]	0	0	0	0
43	Special drawing rights	601	-398	4,511	-223
44	Reserve position in the International Monetary Fund	1,494	3,826	10,200	3,331
45	Foreign currencies	-572	-623	-615	-734
46	U.S. Government assets, other than official reserve assets	537	1,710	5,539	5,346
50	U.S. private assets	-327,484	-909,539	-446,510	-1,062,896
51	Direct investment	-149,564	-279,086	7,662	-235,358
52	Foreign securities	-146,722	-146,549	-197,098	-289,422
53	U.S. claims on unaffiliated foreigners reported by U.S. nonbanking concerns	-18,184	-124,137	-39,603	-83,531
54	U.S. claims reported by U.S. banks, not included elsewhere	-13,014	-359,767	-217,471	-454,585
55	**Foreign-owned assets in the United States, excluding financial derivatives (increase/financial inflow (+))**	**864,352**	**1,461,766**	**1,204,231**	**1,859,597**
56	Foreign official assets in the United States	278,069	397,755	259,268	440,264
57	U.S. Government securities	224,874	314,941	213,334	380,734
60	Other U.S. Government liabilities[11]	-723	-134	-421	3,133
61	U.S. liabilities reported by U.S. banks, not included elsewhere	48,643	69,245	26,260	22,040
62	Other foreign official assets[12]	5,275	13,703	20,095	34,357
63	Other foreign assets in the United States	586,283	1,064,011	944,963	1,419,333
64	Direct investment	63,750	145,812	108,996	180,580
65	U.S. Treasury securities	91,455	93,608	132,300	-35,931
66	U.S. securities other than U.S. Treasury securities	220,705	381,493	450,386	591,951
67	U.S. currency	16,640	14,829	18,969	12,571
68	U.S. liabilities to unaffiliated foreigners reported by U.S. nonbanking concerns	96,526	93,522	31,804	235,769
69	U.S. liabilities reported by U.S. banks, not included elsewhere	97,207	334,747	202,508	434,393
70	**Financial derivatives, net**	**n.a.**	**n.a.**	**n.a.**	**28,762**
71	**Statistical discrepancy (sum of above items with sign reversed)**	**-13,348**	**85,775**	**-18,454**	**-17,794**
	Memoranda:				
72	Balance on goods (lines 3 and 20)	-550,892	-669,578	-787,149	-838,271
73	Balance on services (lines 4 and 21)	53,977	57,487	72,778	79,749
74	Balance on goods and services (lines 2 and 19)	-496,915	-612,092	-714,371	-758,522
75	Balance on income (lines 12 and 29)	45,421	56,357	48,058	36,640
77	Balance on current account (lines 1, 18, and 35 or lines 74, 75, and 76)[13]	-522,101	-640,148	-754,848	-811,477

Footnotes

Download these estimates as a csv (comma-separated values) file
Download all quarters and years for the entire table as a csv or xls file
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Bureau of Economic Analysis
National Income and Product Accounts Table

Table 4.1. Foreign Transactions in the National Income and Product Accounts

[Billions of dollars]

Today is: 1/17/2008 Last Revised on December 20, 2007 Next Release Date January 30, 2008

Line		2002	2003	2004	2005	2006
1	**Current receipts from the rest of the world**	**1,311.6**	**1,377.6**	**1,619.9**	**1,853.5**	**2,159.0**
2	**Exports of goods and services**	**1,005.9**	**1,040.8**	**1,182.4**	**1,309.4**	**1,467.6**
3	Goods[1]	697.6	724.4	818.3	907.0	1,030.5
4	Durable	487.2	496.1	563.8	627.8	717.3
5	Nondurable	210.4	228.3	254.5	279.2	313.1
6	Services[1]	308.4	316.4	364.1	402.4	437.1
7	**Income receipts**	**305.7**	**336.8**	**437.5**	**544.1**	**691.4**
8	Wage and salary receipts	2.9	2.8	2.8	2.9	2.9
9	Income receipts on assets	302.7	334.0	434.7	541.2	688.6
10	Interest	98.3	84.9	118.3	182.5	268.8
11	Dividends	92.8	100.9	121.1	348.3	167.2
12	Reinvested earnings on U.S. direct investment abroad	111.6	148.2	195.3	10.4	252.6
13	**Current payments to the rest of the world**	**1,769.9**	**1,889.8**	**2,244.0**	**2,588.5**	**2,953.2**
14	**Imports of goods and services**	**1,430.3**	**1,540.2**	**1,797.8**	**2,023.9**	**2,229.6**
15	Goods[1]	1,189.3	1,283.9	1,499.5	1,702.0	1,880.4
16	Durable	770.0	801.2	934.1	1,021.0	1,126.5
17	Nondurable	419.4	482.7	565.4	681.0	753.9
18	Services[1]	241.0	256.2	298.3	322.0	349.2
19	**Income payments**	**275.0**	**280.0**	**361.3**	**475.6**	**633.4**
20	Wage and salary payments	8.4	8.5	9.0	9.3	9.4
21	Income payments on assets	266.7	271.4	352.3	466.3	624.0
22	Interest	218.0	187.8	229.4	325.7	461.5
23	Dividends	45.0	68.9	73.3	92.5	91.4
24	Reinvested earnings on foreign direct investment in the United States	3.6	14.7	49.7	48.1	71.1
25	**Current taxes and transfer payments to the rest of the world (net)**	**64.5**	**69.7**	**84.9**	**89.0**	**90.1**
26	From persons (net)	40.0	40.2	43.1	47.3	48.9
27	From government (net)	14.3	17.6	19.2	27.1	20.3
28	From business (net)	10.3	11.9	22.6	14.6	20.9
29	**Balance on current account, NIPAs**	**-458.3**	**-512.3**	**-624.1**	**-735.1**	**-794.1**
	Addenda:					
30	Net lending or net borrowing (-), NIPAs[2]	-459.7	-515.5	-626.5	-739.1	-798.0
31	Balance on current account, NIPAs	-458.3	-512.3	-624.1	-735.1	-794.1
32	Less:Capital account transactions (net)[3]	1.4	3.2	2.4	4.1	3.9

Things to Note About the Balance of Payments

1.) BOP numbers are slightly different from NIPA numbers, due to minor accounting differences.

2.) The U.S. has been running a persistent trade deficit since the mid-1970s. The deficit has grown rapidly during the past decade.

3.) The U.S. has persistently run a surplus on net factor payments, so the current account deficit has always been smaller than the trade deficit.

4.) Most trade is still in goods, but the share of services has been growing.

5.) The Financial Account reveals huge <u>gross</u> asset flows. Due to CA deficits, on net the U.S. sells more assets than it buys, but it still buys <u>a lot</u> (more than \$1 trillion in 2006)

6.) The U.S. consistently earns more on its foreign assets than it pays to foreigners on their U.S. asset holdings.

Alternative Interpretations of Aggregate Trade Imbalances

$NX > 0$ $\Longrightarrow$ Trade Surplus

$\Longrightarrow$ Output > Spending

$\Longrightarrow$ Positive Net Foreign Investment

$\Longrightarrow$ Capital Outflow

$\Longrightarrow$ Lending Abroad

$NX < 0$ $\Longrightarrow$ Trade Deficit

$\Longrightarrow$ Output < Spending

$\Longrightarrow$ Negative Net Foreign Investment

$\Longrightarrow$ Capital Inflow

$\Longrightarrow$ Borrowing from Abroad